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**“Influence and Change:  
A Study of the Ethical Decision Making of  
Trainee Accountants”**

by Alison Katherine Hull, B.A., A.C.A.

Thesis submitted to the University of Nottingham  
for the degree of Doctor of Philosophy, October, 1999



## **Influence and Change: A Study of the Ethical Decision Making of Trainee Accountants**

### **ABSTRACT**

This thesis is concerned with the subject of ethical decision making. A large number of theoretical models of ethical decision making have been developed in recent years. Apart from a small number of studies, there has been very little empirical testing of the theoretical frameworks. Even fewer studies have examined ethical decision making in a longitudinal framework. This thesis defines and extends a part of one of the models, and tests it longitudinally. The longitudinal context allows dynamic issues in ethical decision making to be explored - how ethical decision making changes over time in response to various individual and situational factors. An important debate in the ethical decision making literature concerns the appropriate conceptual basis for ethical judgement. Most previous studies have focused either on the Cognitive Moral Development construct from psychology or on moral philosophy as the root of ethical judgement. This study develops existing theory to accommodate a third basis, that of personal values. The results of the study show that the personal values construct has significant explanatory power. Further, they suggest that it offers an attractive avenue by which researchers can further explore the relationships between the individual and the organisation.

The accountancy profession provides the specific context for this study. Very little is known about how trainee accountants develop a sense of professional ethics. The objective of this study is to examine if and how the ethical decision-making of chartered accountants changes from the time they first join the profession to the end of the three year training period. Previous research has suggested that there may be a possible deficiency in the ethical development of accountants, and that accountancy training may not equip trainees to deal with the ethical conflicts which can arise in their work. Specifically, there is a critical view in the UK accounting literature that professional ethics training tends to focus on rule-following, and does not develop trainees' analytical ethical reasoning abilities. One of the aims of this study is, therefore, to assess the impact of existing professional training programmes as one of a number of individual and situational factors which may influence the ethical judgement of trainee chartered accountants. In order to do this, one group of trainees, a subset of the graduates who joined professional accountancy firms in autumn 1994, were surveyed at different points during their three-year Training Contracts. The study is unique in terms of its context, a large scale survey of UK trainee chartered accountants, and in terms of its longitudinal methodology.

The results illustrate the possibility that different standards or sets of values e.g. personal and professional, can be brought to bear on single decisions in the professional context. Further, the experience of professional training and socialisation does not appear to aid trainees in resolving this type of conflict. In this study, personal values are found to be a major influence on ethical judgement across scenarios and across time while organisational values become increasingly important over time. In particular, the results suggest that commercial organisational values affect trainees themselves, not just their decision making, by influencing their personal values over time. Change in trainees' personal values, and correspondingly on their ethical judgement, does not appear to be brought about by specific job-related variables such as ethics training, peer group opinion or external pressures of time. It seems more likely that these specific factors are absorbed by trainees as subconscious indicators of an organisation's values. It makes sense then that the study also shows that the impact of these organisational values on personal values is moderated by organisational commitment, the willingness to believe in an organisation's goals and values.

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## **Chapter 1: Introduction and Background**

### **1.1 Introduction**

“You always bend the rules. You have to bend the rules to get things done in this place because you’re under pressure.”

This was the observation of one of a small number of second year trainee accountants when asked by the author about his experience of ethics in the accountancy profession. He was employed by a large firm of chartered accountants in England and was interviewed during the course of this research project. The quotation illustrates the possible impact of context-specific factors on ethical decision making and underlines the fact that ethical behaviour does not happen in a vacuum. It supports evidence in the business ethics literature that performance pressures can contribute to unethical behaviour (Brenner and Molander, 1977; Posner and Schmidt, 1987). This thesis is concerned with the ethical decision making of trainee chartered accountants during the typical three year training period through which they progress after joining the profession. For the majority, this is their first job as graduates. The study examines the influences on ethical decision making, both relating to the individual and to the organisational/professional context, and seeks to establish links between these and ethical decision making.

The study is empirically based, and it employs a longitudinal methodology in order to examine change in ethical decision making over time. It is broadly based in the field of business ethics but draws on literature from a number of other fields as diverse as moral philosophy, cognitive psychology, organisational behaviour and accounting. This chapter provides an introduction to the main concepts under study and the context in which the study took place. It also specifies the aims and objectives of the study.

### **1.2 Background to the thesis**

Business managers and scholars alike are interested in improving ethics and ethical behaviour in organisations. Robertson (1993, p. 585) notes that “scholarship in business ethics has increased dramatically in the past decade”. The field of business ethics now has its own institutions, textbooks, journals and debates. This reflects increasing interest in the role

of business in society and the ethical standards appropriate to business activity. Originally based in the US, the field of business ethics is now also becoming established in the UK and other European countries as interest, and material available which relates business ethics issues to the European context (e.g. Harvey, 1994), increases. It is possible to identify several broad levels of analysis in the subject. First, there have been attempts to deal with ethics at a macro level by asking questions concerning the moral status and social responsibility of organisations and by attempting to evaluate the moral status of economic systems. Second, there are studies which have attempted to identify the ethics of individual organisations and to explore, using normative analysis, the rightness or wrongness of different organisational contexts and practices. A growing number of scholars are interested in the effect on ethical decision making of organisation-specific factors such as corporate culture and ethical climate. Finally, there is a subset of business ethics research which is conducted at a “micro” level, examining and seeking to explain the ethical or unethical behaviour of individuals within organisations. The focus of this thesis is at this individual level. The importance of understanding the way individuals make decisions involving ethical issues is outlined by Trevino (1986, p. 601):

“Ethical issues are ever present in uncertain conditions where multiple stakeholders, interests, and values are in conflict and laws are unclear. Managers engage in discretionary decision-making affecting the lives and well-being of others. Thus, they are involved in ethical decision making. Their decisions and acts can produce tremendous social consequences, particularly in the realms of health, safety and welfare of consumers, employees, and the community.”

In recent years, a number of theoretical models have emerged which attempt to understand and explain the influences on individuals’ ethical decision making. This study develops and tests one of these models in a particular context, that of chartered accountancy training.

The importance of the ethical standards of members of the accountancy profession is not only general, in the sense that Trevino outlined in the quotation above, but it is also specific in the sense that public interest has been aroused in what some commentators have termed an ethical crisis in the profession:

“Highly publicized audit failures have aroused the public’s interest in the ethical judgements and behavior of auditors in recent years.” Shaub, Finn and Munter (1993, p. 145)

“The closing years of this century will evidence a great challenge to the continuance of accounting as a profession. The challenge is centred on the profession’s need to strengthen public confidence in its effectiveness and ethics.” McCarthy (1997, p.257)

The subject of accountants’ ethics is relevant to a number of current debates. First, in recent years the appropriateness of the accountancy profession’s self-regulatory status has become a contentious issue in the UK. At the heart of this issue lies a question about the independence of auditors and the ethics of their behaviour in a corporate governance context (Bazerman et al, 1997; Cook et al., 1997). While the supply of audited accounting information is a crucial aspect of effective corporate governance (Short et al, 1999), auditors’ independence may be compromised by the increasing number of ethical challenges arising in their work (Karcher, 1996; Napier, 1998; Power, 1995; Vyakarnam et al, 1996). Attention to ethics may prove to be an important factor in the maintenance of self-regulatory status for the accountancy profession (Broom, 1998). Integrity, independence and objectivity have traditionally been seen as the cornerstones of accountancy’s claim to professional status and have a key role to play in safeguarding against abuse of a specialist body of knowledge which is intended to be used in the public interest. If high ethical standards are not maintained, there may be a loss of public confidence in the attest function of the audit, as suggested by the authors quoted above. While it is not the purpose of this thesis to debate the accountability issue, it provides the background for the study. The importance of professional ethics in a corporate governance context also has implications for accountancy training and its role in shaping graduate trainees’ ethical attitudes. Thus the second debate providing background for the study concerns the nature of professional training.

Substantial revisions to the form and content of the Institute of Chartered Accountants in England and Wales’ (ICAEW) training arrangements are currently being considered by the ICAEW membership with a view to ensuring that the qualification continues to provide what has traditionally been seen as an excellent all-round business qualification. The ICAEW has repeatedly asserted that “objectivity of judgement, integrity of behaviour, technical competence and high personal standards” (ICAEW, 1993) are the defining features of the



professional approach, and are therefore goals of the training programme. Professional ethics continues to be stated as one of the factors which the ICAEW believe will continue to “add value” to the qualification, and will ensure that it remains attractive to top class graduates and in demand by organisations. In contrast to this stated concern for professional ethics, however, is an academic literature which, in places, is disparaging and cynical about the effectiveness of graduate accountancy training in developing trainees’ ethical abilities. Critics argue that accounting education is very weak in its coverage of areas such as ethics, professional judgement and responsibility, and, further, that its focus on technical issues can be detrimental to the development of trainees’ ethical reasoning abilities. This study examines the ethical decision making of a group of trainee chartered accountants over the training period, and considers training as one of a number of possible factors motivating change in ethical decision making observed over time.

### **1.3 Justification and location of the research**

As has been discussed above, there is considerable interest from a number of quarters in the ethics of accountants. The purpose of this section is to provide a more academic justification of the choice of the current research topic by seeking to locate it within the wider research agenda for business ethics. First, it is important to note that this study is located firmly in the positivist tradition. It is common for reviewers (e.g. Cowton, 1998; Robertson, 1993; Weaver and Trevino, 1994) to draw a distinction between normative business ethics research which concentrates on what ought to be, and positivist business ethics which focuses more on describing what actually is. The former has a long tradition of the involvement of philosophers and theologians while the latter is a relatively recent development involving social scientists from fields such as social psychology, organisation theory, and economics. Much has been written about the relationship between these two theoretical bases for business ethics, and this subject is left until chapter 5 except to note that it appears to be widely accepted that it is very difficult, perhaps impossible, to conduct purely descriptive empirical analysis. At the least, the choice of research question has normative foundations. In this study, for example, the choice to study the ethical decision making of accountants is based on a belief that high standards of ethical behaviour are important in the accountancy profession. Further, it is very difficult to interpret the results of empirical studies without reference to what constitutes more or less ethical judgement or behaviour. In the words of Victor and Stephens (1994, p. 145), “to ignore the normative aspects [of moral behaviour] is

to risk amoral social science". The methodology underlying this study is therefore primarily categorised as empirical. It does not claim, however, to be purely descriptive, as efforts have been made to ensure that the research is based on normative foundations.

A number of reviews published in recent years have considered the state of business ethics research. These reviews have tended to cover two areas. The first is concerned with determining appropriate questions for future research. Robertson (1993) notes that a number of models of ethical decision making have been developed but that "none of these models has been sufficiently tested" (1993, p. 588). She concludes that one of the most promising areas on which researchers should concentrate is empirical testing of these models with the aim of understanding the impact and interaction between situational and individual factors in ethical judgement. Numerous other business ethics scholars agree about the need for refinement and testing of the models (e.g. Ford and Richardson, 1994; Randall and Gibson, 1990; Robertson, 1993). Studies in this area, however, are scarce. The main reasons for this are the complexity of the issues involved, and related difficulties in empirical testing, coupled with the lack of clarity in the theory. In order to make theory operational, this thesis focuses on one aspect of the complex and multi-faceted ethical decision making process, ethical judgement. Despite this narrow focus, there is still a need for development of the theory on the ethical judgement part of ethical decision making in order to *render it more testable*. Part of the original contribution of this thesis therefore lies in its development and clarification of the theory relating to ethical judgement. The ethical judgement section of one of the existing models is developed and is used to generate and then test a number of hypotheses.

The second broad concern of reviewers of the state of business ethics research is methodological quality (e.g. Cowton, 1998; Randall and Gibson, 1990; Robertson, 1993). With respect to the location of this research, the important question raised by these reviews is whether this study has met the challenges and addressed the issues they raise. This question is the subject of the remainder of this section. Reviewers discuss both specific difficulties surrounding the sensitive issues involved in business ethics research and general issues of methodological rigour. Most reviewers identify the risk of reduced response rates, putting generalisability in jeopardy, as the most problematic effect of researching sensitive issues such as those commonly encountered in business ethics. The reviewers discuss available methods for detection and reduction of non-response bias. Although some argue that tests for detection are imperfect, most reviewers are more critical of studies which do not even

address the possibility of bias (Cowton, 1998; Randall and Gibson, 1990). Another problem associated with researching sensitive issues is the possibility that respondents will try to cast themselves in a favourable light, or social desirability bias. Cowton notes that in addition to the traditional ways of encouraging candour, such as promising confidentiality, there are also scales for the detection of social desirability, but that these are seldom used in business ethics research. This study takes a very thorough approach to the discussion and investigation of non-response and social desirability biases, using detection scales and other techniques to deal with them.

Concerns have also been voiced about the general state of business ethics research (e.g. Randall and Gibson, 1990; Robertson, 1993). It has been described as generally lacking in methodological rigour, comparing unfavourably to other research carried out in business schools. This may be “generally symptomatic of a new, emerging field” (Weber, 1992), but is obviously a situation which needs remedying. Use of convenience samples, of underdeveloped measurement scales lacking reliability and validity, poor response rates, and lack of use of multivariate data analysis have all been highlighted. While some critics warn that attention to research methods above other considerations risks holding business ethics hostage to the “dogma” of the empirical research tradition (Brady and Hatch, 1992), others make the obvious observation that if empirical research in business ethics is to be conducted, it should be done well. This study adopts various strategies in its attempt to provide methodological rigour. Its design addresses many of the concerns of the critical reviewers. For example, pre-established measurement scales have been used wherever possible and strenuous efforts have been made to ensure scenario realism, the possibility of bias has been assessed and discussed, and multivariate techniques have been employed. While a “belt and braces” approach to methodology is to be expected in a doctoral dissertation, criticisms of rigour in business ethics research have made it particularly important for this study to provide full methodological details to enable the reader to make his/her own assessment of the researcher’s claim that the criticisms have been met.

A final point in relation to the justification and location of the study concerns the role of empirical work in theory building. Some critics have argued that business ethics research is lacking because it is populated by small scale surveys which make minimal contribution to the theoretical development of the field. Robertson (1993) argues that in order for empirical work to advance theory building and refinement, studies should not only be conducted to

replicate previous results but that they should be designed to be broader in scope, for example, by using cross-national or longitudinal design. There are very few longitudinal studies of ethical decision making, and those that exist tend to compare different subjects in different time periods e.g. Zinkhan et al. (1989). By comparing the same group of subjects over time, this study can claim to be “truly” longitudinal and therefore to be filling a gap in the literature. Further, as has already been mentioned, this study refines and extends existing theory in order to make it more testable.

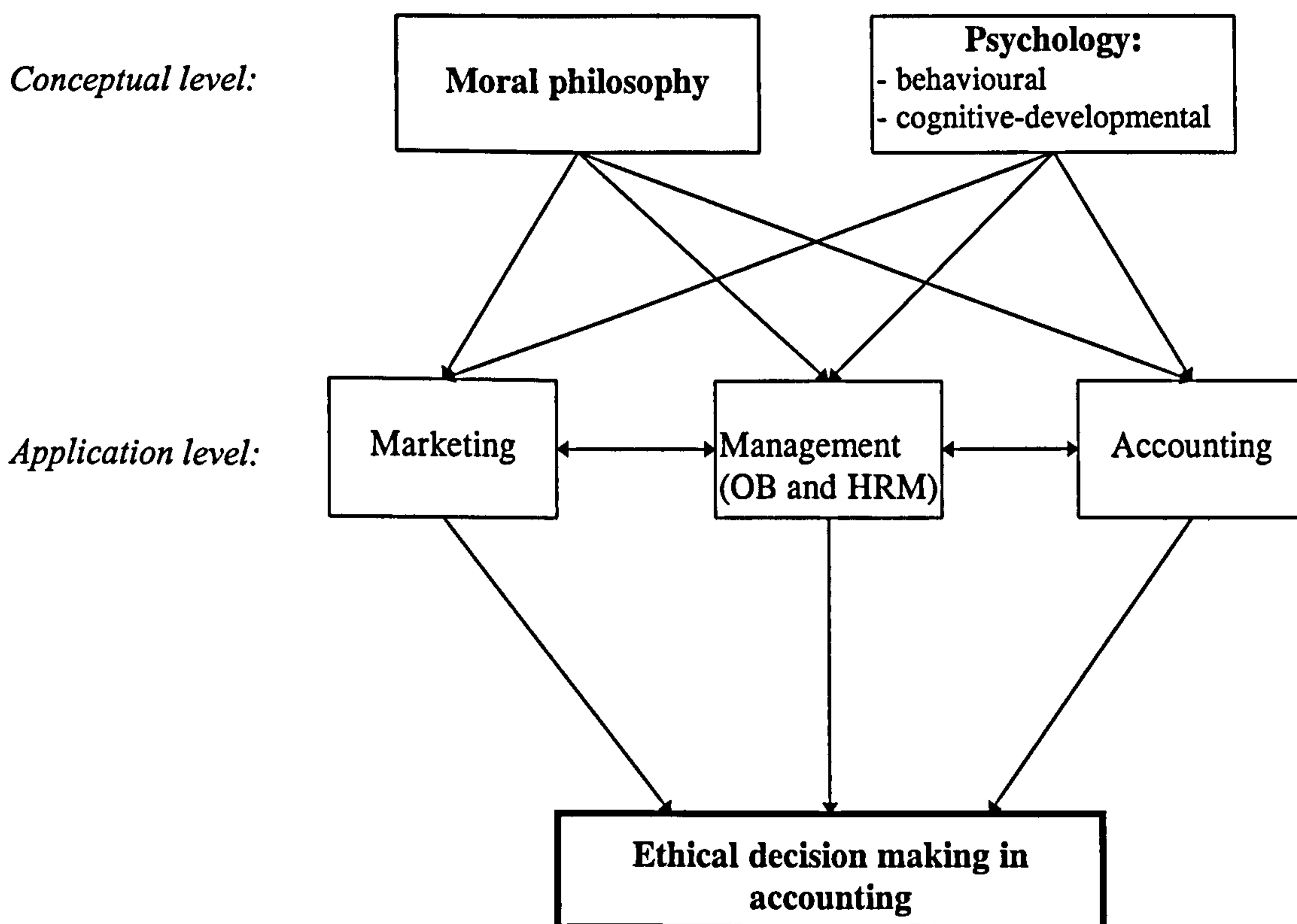
#### **1.4 The ethical decision making concept**

The study of ethical decision making has multidisciplinary roots. Central concepts about the basis for individuals’ ethical judgement have been drawn from two main areas, moral philosophy and psychology. The ancient discipline of moral philosophy is fundamentally concerned with the questions concerning the determination of right and wrong. The study of psychology has contributed to the understanding of ethical decision making in a number of ways such as by explaining moral reasoning in terms of a rational behavioural reaction to various stimuli and by exploring the individual thought patterns and processes pertaining to moral or ethical issues. Concepts from both fields have been used to explore individuals’ decision making in ethical situations in a variety of disciplinary contexts reflecting different functional areas within organisations. Robertson (1993) notes that ethical decision making in marketing and in management (focused particularly on organisational behaviour and human resources) has received a good deal of attention while accounting has received less notice. In order to study the ethical decision making of accountants, it is necessary to draw insights from all the material on ethical decision making, and not just to focus on the pre-existing work on the decision making of accountants, the theory of which has not yet been developed sufficiently. Figure 1.1 depicts the disciplinary evolution of the concept of ethical decision making as discussed in this paragraph.

As noted above, a number of descriptive models of ethical decision making have emerged in the business ethics literature in recent years. These models, reflecting varying perspectives, can be seen as the result of several decades of piecemeal business ethics research which has investigated a variety of mostly bivariate relationships between various factors and ethical judgement or decision making. Despite the variations in the models, it is widely accepted that organisational as well as individual factors influence the decisions of individuals in the

organisational context. The models provide a foundation for this study and more generally, for an agenda of important research for the academic study of business ethics. The results generated from this research agenda may have profound implications for the practice of ethical management especially if it provides evidence of linkages between particular organisational factors or values and ethical judgement outcomes.

*Figure 1.1: A map of the disciplinary evolution of ethical decision making in accounting*



### 1.5 The accountancy context

The decision to study accounting trainees affords the opportunity to examine how new recruits learn to respond to the ethical complexities of the accountancy profession, and whether and how entry into the profession equips them to do so.

“We had some people coming in from head office just to check we’re up to standard. We knew which clients [files] they were going to look at but some of the things hadn’t been ticked properly so the manager told me to phantom tick them which is obviously wrong. I was a bit hesitant to do it but he just said he didn’t want his own

writing on it because he was a manager. I did it because he was a manager who I know is very good and it wasn't a risk really - the audit had been and gone. So it was really just a finer point but it was wrong."

"The first error I found was in stock on a fairly major line of raw materials - a stock line was fairly majorly overstated by around £50,000. It wasn't a particularly pleasant thing to find. I briefly considered brushing it under the carpet but realised that to do so would be unprofessional. The next time I spoke to my manager on the phone a couple of days later he asked 'have you found any errors?' and I said 'yes I've found £50,000 which goes the wrong way'. He said 'sh\*\*, can't we lose it?' and I said 'no, unfortunately not, because the client knows we know'. I like to think he was being flippant rather than anything else."

"There are huge opportunities for unethical behaviour without a doubt in the receivership department, where I'm based. It's potentially a big problem. But you just don't do it - I think basically the fear factor prevents you from doing it."

These were the experiences of ethical issues of three second year accounting trainees interviewed as a part of this study. They are included here to illustrate some of the issues and pressures faced by trainee accountants. The accountancy profession therefore provides an interesting context for the study of ethical decision making, not only because of the background factors discussed above. The professional context provides ethical considerations additional to those dealt with by decision makers in non-professional organisational contexts. As a result, there is an increased risk that conflicts can arise between different sets of values. It is possible in any organisational context that role-defined decision making may conflict with an individual decision maker's perspective, but in the accountancy profession, further conflicts are possible between different sets of organisational values e.g. role-defined norms of behaviour, employer-determined modus operandi, and the profession-determined code of conduct. Because of the possibility of such conflicts and because the literature on organisations underlines the notion that there are multiple influences on individuals' ethical decision making, the ethical decision making of accountants is not treated in this thesis simply as a function of professional ethical guidance. Whilst professional ethics guidance forms a specific set of ethical considerations relevant to the accounting context, the thesis argues that to treat this set of considerations as the totality of ethical decision making is unrealistically minimalist. In arguing thus, the thesis follows a significant stream in the accounting literature (Ponemon and Gabhart, 1993; Armstrong, 1995; Shaub, 1989; Tsui, 1994) which incorporates situational and contextual features of the

accountancy profession, including its professional ethics, into a business ethics framework<sup>1</sup>. Some scholars have argued that the accountancy context is so specific that the ethical decision making of accountants must be considered in a framework designed especially with accountants in mind (Gaa, 1992; Schlacter, 1990) and that general ethical decision making models are inadequate. Such claims tend to be made on the basis that ethical decision making in accounting is a subset of general professional decision making (e.g. O'Malley, 1992). Adoption of a general ethical decision making focus in this thesis, rather than a professional judgement focus, is justified in relation to this issue in section 2.3.3.2.

## **1.6 Aims and objectives**

The principal aim of the study is to conduct an investigation into the factors affecting how accounting trainees' make work-related decisions which involve an ethical dimension. A subsidiary aim is also identified, associated with the primary aim of the study. It is to examine change in ethical decision making over time. There are very few studies of change in ethical decision making, and even fewer relating to accountants. This is one of a very few empirical studies of the ethics of practising accountants in the UK and the first longitudinal study investigating change over time.

In order to achieve the aims, a number of research objectives are specified as follows:

- To conduct a highly rigorous investigation of the relationships between ethical judgement and individual influences including socio-demographics, aspects of personality and personal values, and situational influences such as organisational values, organisational commitment, job characteristics, job satisfaction, peer group influence, and professional training.
- To assess the relative importance of the different factors.
- To assess change over time in ethical judgement and to investigate factors which may have been influential in any changes.

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<sup>1</sup> The justification for the business ethics focus in this thesis does not rely on adopting the conflict model of professions from sociology which views professional ethics as a self-serving device for the profession to secure its members interests, etc. Such a view would not be consistent with the pluralist position adopted in the rest of the thesis.

- To develop and refine, using extant theoretical and empirical literature, a part of Jones' (1991) synthesised model of ethical decision making in order to generate research hypotheses and to make it more testable.
- To investigate the usefulness of personal values as the main construct driving ethical judgement.
- To empirically test the model, both cross-sectionally and dynamically, by using longitudinal data.
- To draw out the academic and managerial implications of the results of the above testing.

### **1.7 Limitations of scope**

The previous sections have made clear what this thesis is about. This section clarifies some areas which are not covered by the thesis. The subject under investigation has demanded that a wide range of literature be reviewed for this thesis, and a multidisciplinary and pluralist approach be taken. There are, however, a number of areas which are related to the study of ethical decision making of individuals but which are outside the scope of this thesis. First, this thesis is not about the economic analysis of ethical decision making. This is an interesting subject which was considered for inclusion, but since it is peripheral to, and does not inform the literature central to this study in any substantial way, it was excluded. Second, while an overview of the subject of cognitive moral psychology has been offered as background to the subject of ethical decision making, a detailed understanding of the psychological analysis of decision making is beyond the scope of the study as it is not needed for the study's aims to be met. Similarly, detailed normative, philosophical debates such as the meanings and definitions of utilitarianism are also excluded. Finally, it has been made clear that the focus of this investigation is on the individual accountant and his/her relationship with the organisational environment. This means that institution-level critiques of professions and debates concerning questions such how the accountancy profession should be regulated provide interesting background, and are therefore mentioned briefly in the thesis, but they are ultimately outside the scope of the current investigation.



## **1.8 Outline of the thesis**

This section will give a brief outline of each of the chapters in this thesis. Chapters 2 and 3 are essentially reviews of the literature relevant to the study. Chapter 2 describes and summarises theoretical and empirical literature on ethical decision making within organisations, making specific reference to studies on ethical decision making in the accountancy profession. It also provides further background on the concepts central to ethical decision making which have been imported from other fields. In chapter 3, literature relevant to the study of accountants' ethics is considered and aspects of accountancy as the context for this study of ethical decision making are considered. This chapter highlights ethical issues and potential sources of ethical conflict in the accountancy profession and discusses the situational factors in the profession which are relevant to a study of ethics. It also reviews research on the ethical level and abilities of accountants and the ethical impact of the accountancy training process in the UK.

Chapter 4 is the model development chapter. It outlines and justifies the theoretical framework chosen as the basis for the study and it discusses the theoretical extension to the framework. The adapted model is then used to generate testable cross-sectional and dynamic research hypotheses.

Chapter 5 is the methodology chapter. Its aim is to provide a full report and justification of the methodological decisions made in the current study and to discuss the issues that surround the choices made. It covers the philosophical issues involved in choosing between alternative methodologies and describes and justifies the approach taken in this study. It includes a discussion of the differences and relationship between first, qualitative and quantitative, and second, normative and empirical approaches to business ethics. Chapter 5 also gives details of the data collection methods chosen for the study and of conceptualisation and operationalisation of the constructs involved. Finally, issues relating to sampling are discussed.

In chapter 6, preliminary analysis of the data is conducted. First, the chapter follows on from chapter 5 by discussing the size of the sample, questionnaire distribution and response rates for each of the three questionnaires. After this, the question of representativeness is addressed, and the major threats to representativeness of non-response and social desirability

are assessed and discussed. Then, the results of exploratory data analysis, conducted with the objectives of assessment of reliability and validity and the reduction of the data, are presented.

Chapters 7 and 8 present the results of the study. Chapter 7, the main results chapter of the thesis, deals with the results of cross-sectional hypothesis testing, i.e. hypotheses dealing with relationships existing in a single time period. Chapter 8 presents the results of dynamic hypothesis testing. These hypotheses address relationships over time or dynamic issues. In both chapters, model estimation and formal hypothesis testing is preceded by presentation and discussion of bivariate statistics. A small number of longitudinal interviews were also conducted to run concurrently to the quantitative data collection. Quotations from these interviews are used throughout the two results chapter to provide illustration of the findings.

In chapter 9, the study is concluded by summarising the issues addressed and fieldwork undertaken, reviewing the empirical evidence presented and drawing out the academic and professional implications. Finally, the limitations of the study are acknowledged and avenues for future research are suggested.

## Chapter 2: Ethical Decision Making

### 2.1 Introduction

This chapter reviews the literature on ethical decision making. Although most of the literature is found in the relatively new field of business ethics, its origins can be traced to work by psychologists and philosophers, and contributions to it have been made from the disciplines of economics, marketing and business strategy/management. The purpose of this chapter is to describe and summarise theoretical and empirical literature on ethical decision making within organisations. Specific reference is made to studies on ethical decision making in the accountancy profession.

Section 2.2 reviews the insights into ethical decision making available from the fields of moral philosophy and social psychology. Traditionally, the study of ethics falls into the domain of philosophy. The first part of section 2.2 offers a brief introduction to the major normative ethical theories which have provided the backbone of ethical study for centuries. This is followed by a discussion of psychological insights into ethical decision making. This involves locating ethical decision making in the wider context of general decision making. The second major section (section 2.3) of this chapter focuses on ethical decision making research found in the general business, business ethics and marketing literatures. First, research into the variables associated with, or antecedent to ethical judgement and behaviour is reviewed. Second, multivariate theoretical models of ethical decision making, including the small number of frameworks designed specifically with accountants in mind, are summarised and discussed. Third, a review of empirical research testing the theoretical models is presented. The last main section of the chapter, section 2.4, examines the role of values in ethical decision making. The nature and role of values forms a general introduction to the topic before the role of values in ethical decision making is discussed in the context of the other drivers of ethical judgement included in the literature, psychological cognitions and moral philosophy. Section 2.4 also addresses the different impacts of personal and organisational values and explores the notion that the two can be interrelated. Integral to the discussion of organisational values is the consideration of corporate culture as the means by which meanings, beliefs and *values* are shared and promulgated within an organisation. The strand of the management literature which focuses on the influence of organisational culture on the importance and type of ethical

decision making within organisations is also reviewed in section 2.4. The final section draws together the main findings of the chapter, highlighting areas of agreement and conflict in the literature.

## **2.2 Ethical decision making - the non-business context**

### **2.2.1 Normative moral philosophy**

No discussion of ethics and the way people make decisions concerning moral issues can take place without reference to moral philosophy. Ethics has been defined as “inquiry into the nature and grounds of morality where that term morality is taken to mean moral judgements, standards, and rules of conduct” (Taylor, 1975, p.1). Moral philosophy is the study of normative ethical theories; these are essentially prescriptive approaches used to judge the goodness/badness of specific actions or behaviours. Normative ethical theories have been influential in the development of models of ethical decision making. The main themes are therefore reviewed in this section.

A review of almost any ethics or business ethics textbook (e.g. DeGeorge, 1986) will reveal that there are two major classifications of normative ethical theories, deontological or teleological. The word teleology implies movement towards a goal. Teleological ethical theories judge the moral worth of behaviour in terms of the outcomes of behaviour (Ferrell and Gresham, 1985). Things are therefore classed as “morally right” if they produce a desired end-state of goodness or pleasure. The two commonly discussed forms of teleological theory are egoism and utilitarianism. Egoism judges rightness purely in terms of individual outcomes. Utilitarianism defines rightness in terms of that which will cause the greatest good for the greatest number of people (Frankena, 1973; Mill, 1993). Utilitarianism can be classified further into act and rule utilitarianism. Act utilitarians claim that an act is morally right if it produces as much or more well-being or desire satisfaction than any available alternative act. Rule utilitarianism does not evaluate actions directly in terms of the consequences of the actions. Rather, the rightness of an action is determined with regard to whether it accords with a set of rules which, if followed, would produce the greatest well-being, etc. The precise formulation of utilitarianism adopted and the definition of pleasure/well-being employed have been the subject of intense debate (e.g. Glover, 1990; Lyons, 1965; Sen and Williams, 1982) the detail of which is beyond the scope of this discussion.

Deontology is the other major classification of ethical theory. Its fundamental propositions are completely different to the basic tenets of teleological theory. Rather than judging rightness according to consequences, deontological ethics focuses on the rightness or wrongness of the methods or intentions. Acts can therefore be distinguished as inherently right or wrong. Whereas utilitarianism sees society as the reference point for judgement of morality, in deontological ethics, the individual is the focal point or seat of morality. Rightness or wrongness is determined with reference to the individual. The language of deontology centres on words such as obligation, rights, and duties. Naturally, there are many formulations of what constitutes the right way to act. Religious groups form one group for whom there are sets of rules containing immutable standards. Other widely accepted formulations include rule and act deontology. Kant's categorical imperative is the crux of rule deontology (Fraedrich and Ferrell, 1992): "Act only on that maxim which you can at the same time will to be a universal law of nature"<sup>1</sup>. Simply put, an act is ethical as defined by the Categorical Imperative if it can be turned into a universal rule or law which can be consistently and willingly applied by others. Act deontology, on the other hand, asserts that rules act only as guidelines from past experience and that acts should be judged according to the moral nature of the act itself (rather than the consequences of the act, as in act utilitarianism). In practice, this allows situational variables to affect the judgement of right and wrong to a much greater degree.

By their very nature, normative ethical theories cannot explain how people actually make ethical decisions. This observation begs the question whether deontological or teleological reasoning should be incorporated into a positive model of ethical decision making i.e. do people actually refer to the normative theories? Some studies attempted to provide evidence of a direct link between business managers' use of normative moral philosophy and their ethical behaviour (Fritzsche and Becker, 1984; Fraedrich and Ferrell, 1992). Some of the ethical decision making models, particularly from the field of marketing, incorporate deontological and teleological evaluations specifically (e.g. Ferrell and Gresham, 1985; Hunt and Vitell, 1986). As the theory has developed, however, less direct emphasis has been placed on philosophical bases for ethical reasoning and judgement as concepts from psychology have been introduced and incorporated in positive models of ethical decision making. Further discussion of the role of moral philosophy as a driver of ethical judgement is provided in section 2.4.3. It is the contribution of social psychology to business ethics to which we turn in the next section.

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<sup>1</sup> From *The Oxford Companion to Philosophy*, ed. T. Honderich, Oxford University Press, New York, 1995, p.436.

## 2.2.2 Social psychology

Broadly speaking, the contribution of psychology is in providing various types of explanation of the psychological processes underlying ethical decision making, whereas philosophy is concerned with the explanation or reasoning behind the determination of ethicality itself. Business ethicists have, therefore, turned to the field of psychology for theory, constructs and measures which could be utilised in the positive study of ethical decision making in organisations. This section provides a brief review of this work in so far as it is relevant to the current thesis. Ponemon and Gabhart (1993) identify two major theoretical approaches to the study of moral psychology, the behavioural approach and the cognitive developmental approach. First, behavioural psychology explains moral reasoning in terms of a rational behavioural reaction to various stimuli. Second, cognitive developmental psychology focuses on individual thought patterns and processes pertaining to moral or ethical issues. These approaches have their roots in distinct branches of the psychological study of decision making which focus either on the social psychological level, i.e. behavioural psychology, or on the personal psychological level, i.e. cognitive psychology.

The behavioural or contingency approach is derived from behavioural decision theory. Data about experiences, including reinforcement, are organised and sorted in a rational manner to determine a reaction; the behavioural approach emphasises social learning as the determinant of moral behaviour. An example of this type of theory is Fishbein and Ajzen's theory of reasoned action (1975) which has received extensive attention in the marketing and consumer behaviour literatures (e.g. Dubinsky and Loken, 1989; Sheppard et al., 1988). Similar elements to some of those included in the theory of reasoned action, e.g. intentions and subjective norms, are also incorporated into several of the marketing based multivariate models of ethical decision making which will be reviewed in section 2.3.3.1. The behavioural approach also encompasses Skinner's (1953) operant theory of behaviour control/modification through reinforcement and expectancy theory (e.g. Rotter, 1966; Porter and Lawler, 1968; Bandura, 1977; Knouse and Giacalone, 1992) which posits that work motivation derives from the probability of successful behaviour resulting in certain valuable, positive (or negative) outcomes. Behavioural theories have been very influential in organisations (e.g. Scientific Management and Theory X Management) and have been widely developed in management theory and practice in the last two decades. It has been argued that the reason for the influence of behavioural theories is that their offshoot, the study of organisational culture, has been seen by academics and

practitioners as a particularly promising management tool with which to influence the way organisational members behave in ways which are consistent with organisational goals (Sinclair, 1993). More recent research has sought to explore and interpret systematic empirical departures from the predictions of the rational, behavioural decision models. Thus researchers have investigated decision making heuristics which systematically bias individuals' judgement such as escalation of commitment (e.g. Staw and Ross, 1987; Street et al., 1997), and have debated ways to train people to overcome these biases in order to make "optimal" decisions (e.g. Bateman and Zeithaml, 1989; White, 1986).

The second approach to the study of moral psychology lies in cognitive theory. Cognitive psychology asserts that decision making can be examined using theories of attention, memory and problem solving (e.g. Anderson, 1980). The perception and attention aspects are said to determine which of the external influences affect memory and the decision process (Schweikart, 1992). Ford et al. (1989) distinguish between two methodologically distinct approaches taken in research into cognitive decision making, structural or statistical modelling and process modelling. The former concentrates on describing the relationship between information input and decision response (output), while the latter focuses more on trying to understand the intervening cognitive steps i.e. algorithms and strategies, between inputs and decision outcomes.

Further discussion of this research is beyond the scope of this thesis. The introduction provided in this section has, however, provided the background to the remaining part of this section which will now address the particular branch of cognitive theory which has received the most attention in the context of ethical decision making, cognitive-developmental psychology. Although both the behavioural and cognitive-developmental approaches have been used in the literature on ethical decision making and on ethics in the accountancy profession, the latter has been particularly influential in the modelling of ethical decision making. It therefore warrants further attention here.

The beginnings of cognitive developmental research in adults can be traced to Lawrence Kohlberg's (1969) theory of cognitive moral development (CMD), which had its roots in the work of Jean Piaget's (1932) seminal research on the moral development of children. Kohlberg emphasised the cognitive basis of moral judgement and rejected the notion that morality was a social construction. The CMD model is a process model which uses the

notion of social perspective to explain individuals' moral reasoning and decision making. Social perspective is characterised by development and change in an individual's perception of his/her relationship with society, with its rules and expectations. Kohlberg's stage sequence model of ethical reasoning relies on an individual's level of CMD as the determinant of moral judgement. It introduced the important concept of a life-long progression through stages of moral development which were broadly classified as level 1 (stages 1 and 2), the pre-conventional level in which there is a focus on the self, level 2 (stages 3 and 4), the conventional level, which focuses on the group or society and level 3 (stages 5 and 6), the post-conventional or principled level, which focuses on the inner self and notions of universal principles or rights. An important aspect of the stage sequence model is the relationship between CMD stage and external influences; Kohlberg asserted that the higher stage individual is less likely to look to external referents for guidance in moral decision-making and is more likely to act autonomously than the lower stage individual. Kohlberg argued that individuals progress through the 6 stages at differing rates, and that some never reach stage 5 or 6, what he called the principled level. He argued that managers' values change over time, and that the process can be accelerated by moral education. The influence of education is a theme which will be developed in the next chapter.

It is widely agreed that, in recent years, Rest (1984, 1986) has provided some of the most influential studies in the field of moral psychology. Rest's work is built upon, and develops, the theoretical foundations laid by Kohlberg. This is most evident in his model (1986) of the four basic psychological processes involved in ethical decision-making in which CMD theory is associated with only one (the second) of the four processes. Thus the four component model rejects the idea that CMD/moral judgement represents the totality of the psychology of morality. The four processes are:

- **Recognition** and interpretation of the situation in terms of actions possible and likely effects.
- **Judgement** of which course of action is morally right.
- **Intentions:** The giving of priority to what is considered to be right over other considerations.
- **Behaviour:** Demonstration of the strength and skill to follow through on intentions.



The other noteworthy contribution made by Rest is the development of the Defining Issues Test (DIT) (1979), a test to measure stages of ethical reasoning. This test has been extensively used by many researchers in psychology, business ethics and accounting; DIT studies of accountants are included in chapter 3. For a more thorough review of moral reasoning research and its relevance to business ethics, see Trevino (1992). Rest's four-component model is characteristic of an acceptance in the literature that there are other factors which affect moral judgement and action besides an individual's level of moral development. Moral psychology research continues to investigate such questions as the impact of culture and context on moral reasoning. These studies are not reviewed here. Rather those of relevance to decision making in organisations are included in section 2.4.5.

One final area of psychology research relevant to this thesis, however, concerns the link between moral cognition and action. Blasi (1980) provided a critical review of the literature on this question and concluded that, generally speaking, there was considerable support for a statistical relationship between moral cognition and action, although the strength of that support varied from area to area. He highlighted, however, the lack of understanding of the "psychological meaning of significant statistical correlations between moral reasoning and action" (p. 40). He called for research into the psychological processes which fill the space between judgement and action suggesting that organic psychological notions of the self should be integrated with the functionalistic cognitive-developmental perspective. The nature of such research is outside the scope of the current study. It is sufficient to note that other researchers (Thoma, 1985) have also found a moderate statistical relationship between cognition and action. This theme will recur in section 2.4.2, when the relationship between values and behaviour is addressed.

Many of the ideas and constructs introduced in the study of moral psychology re-emerge in the business ethics and marketing literatures. For example, in section 2.3.3 we will see that both cognitive and contingency/behavioural perspectives have been incorporated in some of the main models of ethical decision making, including the model chosen to be developed and investigated empirically in this thesis.

## **2.3 Ethical decision making - the business context**

### **2.3.1 Introduction**

Ethical decision making as a separate field of academic enquiry has emerged from a number of disciplines. Thus far this chapter has summarised the contributions of the two main areas of philosophy and psychology, each of which take a very different approach to the subject of ethical decision making. Generalising, philosophy concentrates on how to determine normatively what represents right or wrong, ethical or unethical, and psychology focuses on why or how people make decisions in situations with ethical dimensions. Different parts of the business ethics literature have drawn on different aspects of these subjects. The purpose of this introduction is to clarify the main focus of this thesis before commencing a review, in the rest of the chapter, of the literature central to the study.

To an outsider, the study of business ethics might reasonably be concerned with the ethics or *ethos* of business, or with a moral evaluation of business as a sphere of human activity. A significant proportion of the literature does approach the subject in such a way, questioning, for example, how business fits into wider society, whether organisations can have their own moral status, and the responsibilities which follow (e.g. Goodpaster, 1984; Velasquez, 1983; French, 1984). There is also a debate about what constitutes an appropriate set of ethics for business activity and indeed whether the notion that business should have a separate set of rules or ethics is valid or artificial. Further, there remains little agreement on the question of how to measure the quality of ethical behaviour. In each sphere of business, the normative definition of what is accepted ethical behaviour may vary. The outside observer might also expect the business ethics literature to attend to this question. This it certainly does. For example, Nwachukwu and Vitell (1997) define ethical issues in marketing as being situations which have implications for consumer sovereignty, individual autonomy, and the nature of the product/service being advertised, and Schlacter (1990, p. 840) defines ethical conduct for accountants in terms of “conscious efforts of accountants to uphold standards which include professional competence, independence, objectivity and integrity....to assure the public that its interests are served”.

The focus of this thesis, however, is not on the macro-level debates about the moral status of the corporation or on how to define ethical standards for business. Rather, it focuses on individuals in the organisational context and on the way that they behave. The values, attitudes or ethical standards which shape ethical behaviour in organisations are the result of a complex mixture of

some organisational influences and of influences extending far beyond the organisational realm. It is the attempt to unscramble the influences on, and processes of, individual ethical behaviour which forms the core of the study of ethical decision making.

Section 2.3.2 reviews conceptual and empirical literature on the antecedents of ethical decision making. Then, section 2.3.3. will examine how the literature has developed, from the late 80's to date, towards the conceptualisation and partial testing of multivariate frameworks which incorporate the antecedents of ethical decision making into different influential categories which interact with the ethical decision making process.

### **2.3.2 Antecedents of ethical decision making and behaviour**

Ethical decision-making is a complex and multi-faceted process. This thesis is concerned with the factors which influence it and how they change and evolve over time, especially with regard to professional accountants. In any study of behaviour, there is a vast array of possible antecedents for the behaviour under study. Much of the literature on ethical decision making has been involved in an exploration of the antecedents of ethical judgement, decision making and behaviour in organisations. There appears to be agreement (e.g. Ford and Richardson, 1994; Stead et al, 1990) in the literature that the influences on ethical decision making fall into two general categories. The first includes variables relating to the individual decision maker, including level of cognitive moral development and/or personal ethical values and belief systems. Individual variables also include factors fixed at birth and relating to one's upbringing. The second includes variables pertaining to the situation in which the decision is made, including environmental and organisational factors. This section briefly reviews conceptual and theoretical literature on the influences on ethical decision making, omitting particular studies relating to accountants which are reviewed in the next chapter.

In an excellent and thorough review of the empirical literature on ethical decision making, Ford and Richardson (1994) employ the individual/situational categorisation of variables. Their review highlights the fact that individual factors have received more attention than situational factors, but that overall, "the number of empirical studies is distressingly small" (p.219) to the extent that development of theory in the area has been restricted. The categories of individual variables included in the Ford and Richardson's study are personal attributes, education and employment background, and personality, beliefs and values. The categories of situational

*Table 2.1: Summary of individual influences on ethical decision making*

<b>Ford &amp; Richardson (1994): Summary of individual variables</b>		
<i>Category</i>	<i>Variables</i>	<i>Findings</i>
Personal attributes	Religion Nationality Age Sex	Personal attributes are related to ethical decision making behaviour in some studies but not in others. However, females tended to exhibit the same or more ethical behaviour than males.
Education and Employment background	Type of education Years of education Type of employment Years of employment	No clear pattern emerges from literature. The variables are related to ethical decision making behaviour in some instances but not in others.
Personality, beliefs and values	Machiavellianism Locus of control Role conflict and role ambiguity Values	High Machiavellianism associated with unethical behaviour. Number of studies very low in this area, so few relationships have been verified.

variables are referent groups, codes of conduct, organisation effects, organisation size, employee's organisational level and industry factors. The Ford and Richardson review is quite comprehensive, and there is little purpose, given the limited scope in the literature, to review it in a different way here. A summary of the findings is, however, provided in Tables 2.1 (individual variables) and 2.2. (situational variables). In terms of very recent research, published since the Ford and Richardson review, progress both empirically and conceptually has mainly been in the context of multivariate frameworks which are covered in the next section. Briefly, however, very recent univariate research of a conceptual nature includes Street et al (1997) in which it is posited that exposure to escalating commitment situations will increase the likelihood that individuals will choose unethical decision alternatives; Wyld and Jones (1997) explore Victor and Cullen's (1987) notion of ethical work climate as a proxy for organisational factors in ethical decision making. Some empirical studies have continued to test for the significance of single influential variables (sometimes as a part of wider-ranging studies). For example, Tsui (1994) found that Hong Kong auditors with an internal locus of control were more ethical than those with an external locus of control. Nwachukwu and Vitell, Jr. (1997) tested for a relationship between the existence and enforcement of codes of ethics and ethical decision making in marketing and did not find one. Glover et al. (1997) examine the

influence of age, gender, number of years of work experience and certain workplace values on ethical decision making in four situations of differing moral intensity<sup>1</sup>. The results of this study offer support for the influence of gender and achievement orientation on ethical decision making. Other research of a univariate nature has been conducted, but the scope of the current thesis demands that attention is now focused on multivariate frameworks.

*Table 2.2: Summary of situational influences on ethical decision making*

<b>Ford &amp; Richardson (1994): Summary of situational variables</b>		
<b>Category</b>	<b>Variables</b>	<b>Findings</b>
Referent groups	Peer group influence Top management Influence Rewards and sanctions	An individual's ethical beliefs and decision-making behaviour will increasingly become congruent with top management beliefs, as defined by their words and actions, as rewards for compliance are increased. Peer group behaviour was also found to be related to ethical/unethical behaviour.
Codes of conduct	--	Existence of codes will positively increase ethical beliefs and decision behaviour. Existence plus use of rewards/sanctions for adherence/violation will increase ethical beliefs and decision behaviour more than existence without enforcement.
Organisation effects	Ethical climate Ethical culture	Ethical climate or culture is positively associated with ethical beliefs and decision behaviour. Strength of influence may be moderated by structure and design of some organisations.
Organisation size	--	Ethical beliefs and behaviour decrease as organisation size increases.
Employee's level within organisation	--	As level increases, ethical beliefs and behaviour decreases
Industry factors	Industry type	Industry ethical standards are not related to individuals' ethical beliefs and decision making behaviour.
	Business competitiveness	Level of competitiveness may influence ethical beliefs and behaviour

<sup>1</sup> The subject of moral intensity is discussed in the context of a review of Jones' work (1991) in section 2.3.3.1.

### **2.3.3 Multivariate frameworks of ethical decision making**

Whilst the study of the antecedents of ethical decision making in organisations has been insightful, its main failing is the lack of recognition of, or attempt to engage with, the complex aspects of the decision process itself. It is generally accepted that various individual and situational factors influence ethical decision making in some way. What is far less clear is how to “open up the black box” of ethical decision making to afford a comprehensive and in-depth understanding of how individual and situational variables interact with decision making processes, and with the decision situation itself.

Several theoretical frameworks have been developed which explore the dynamics of these complex relationships. They are reviewed in this section. They differ in terms of structure and content. Some relate to ethical decision-making in marketing. These include Ferrell and Gresham (1985), Hunt and Vitell (1986), Ferrell et al (1989), Dubinsky and Loken (1989), and Kennedy and Lawton (1993). Some models are more generally applicable to the business environment - Trevino (1986), Bommer et al (1987), Stead et al (1990), and Jones (1991), and some are specific to the accountancy profession e.g. Schlacter (1990). The general and marketing frameworks are reviewed in section 2.3.3.1, followed by accountancy-specific models in section 2.3.3.2. Finally, attempts to empirically test the models are reviewed in section 2.3.3.3.

#### **2.3.3.1 General and marketing frameworks**

Most of the theoretical progress in developing an understanding of ethical decision making has been made in the context of the marketing and general business environments. Each framework has made a theoretical contribution, and the literature can be seen to evolve as elements of one contributor’s insights are incorporated into the next framework. A summary of the variables included in these models is given in Table 2.3. In the following roughly chronologically ordered review, the contribution of each model is briefly described and categorised. The chronologically ordered review allows the reader to trace the development of the theory from the very first marketing-based models through to Jones’ synthesis model part of which will be refined and tested in this thesis.

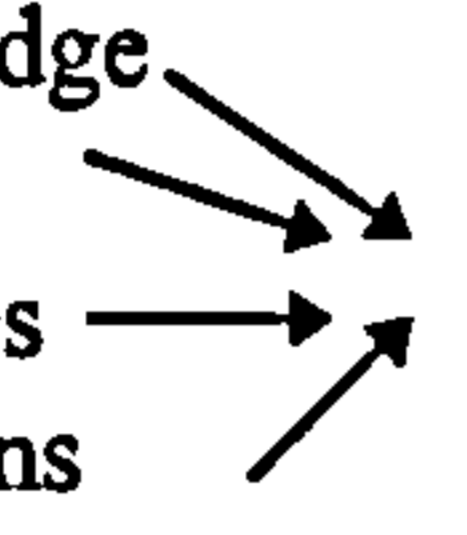
Ferrell and Gresham’s (1985) marketing-based contingency framework was the first multivariate stage model of ethical decision-making to be proposed. As is common in other

models “the contingencies” fall into two basic categories, individual and organisational variables. The ethical decision making process begins with definition or identification of an ethical issue using the exogenous variables of societal and cultural environment. Thereafter, the decision-making process is contingent upon three basic elements of the model. First, the individual’s cognitive structure, which can be characterised by knowledge, values, attitudes and intentions, generates an individual moral reasoning style i.e. a tendency to use mainly teleological or mainly deontological reasoning in judging moral issues. The second element of the model consists of organisational variables. Significant others is the main variable in this category, and is based on differential association theory and role-set theory. In differential association theory (Sutherland and Cressey, 1970) ethical/unethical behaviour is learned from close interaction with referent others or role-sets. Role-set theory (Merton, 1957) helps in the identification of the referent others. The term role-set refers to the various groups with whom an individual has a relationship as a result of his/her position in an organisation. A role-set may include external groups such as customers, suppliers and competitors, and internal groups such as peers, management and supervisors. The relative influence of members of the role-set are determined by distance between the referent other and the individual decision-maker, the legitimate authority or power the referent other has, and the frequency of contact with the referent other. The third and final element in the Ferrell and Gresham model is opportunity. Various proposition are made concerning the efficacy of ethical policies and codes of conduct with regard to their existence, enforcement, and the reward and punishment systems associated with them. Ferrell and Gresham suggest that ethical codes and policies can be as influential as individual attributes in the determination of ethical/unethical behaviour.

The Hunt and Vitell (1986) general theory of marketing ethics also focuses on the process of ethical decision-making. An issue is perceived as being an ethical dilemma, involving alternative choices and consequences, by reference to the cultural, industry and organisational environments and to personal experiences. Included in the personal experiences construct are CMD, personality and “total life experiences”. The perceptions of the nature and consequences of the ethical dilemma feed into teleological and deontological reasoning which give rise to an ethical judgement. Ethical judgement translates into behaviour via intentions which are further influenced by teleological evaluation i.e. preferred consequences can influence the decision away from the original ethical judgement. Finally, intentions generate behaviour with situational constraints such as opportunity acting as an important moderating variables. There

is a feedback loop into the personal experience construct which involves the individual “learning” from the consequences of his/her decision.

*Table 2.3: Summary of variables included in ethical decision making models*

<i>Author and year (in chronological order)</i>	<i>Individual variables (Process driving ethical judgement in italics)</i>	<i>Situational variables</i>
<b>Ferrell and Gresham 1985</b>	Knowledge Values Attitudes Intentions  <i>Moral reasoning style</i>	Significant others (at work) Codes of ethics/conduct Corporate policy Opportunity
<b>Hunt and Vitell 1986</b>	<i>Philosophical reasoning</i> CMD Personality Total life experiences	Opportunity Organisational norms Industry norms Cultural norms
<b>Trevino 1986</b>	CMD Locus of control Ego strength Field dependence	Immediate job context e.g. reinforcement contingencies Organisational culture Normative structure Characteristics of the work
<b>Bommer et al. 1987</b>	<i>Process not specified</i> Moral level Personal goals Motivation mechanism Personality and others	Work environment i.e. corporate goals, ethical policies, corporate culture Professional environment Personal and social environment
<b>Ferrell et al. 1989</b>	<i>Moral reasoning style</i> CMD Knowledge, values, attitudes, intentions	Opportunity Organisational culture
<b>Dubinsky and Loken 1989</b>	<i>Philosophical reasoning</i>	Significant others
<b>Jones 1991</b>	Summarises all the above, but does not specify which variables are more important than others or which process drives ethical judgement	Summarises the above into:- <ul style="list-style-type: none"> <li>• Situational moderators</li> <li>• Significant others</li> <li>• Opportunity</li> </ul> Adds: Moral intensity of decision situation



Although neither Hunt and Vitell, nor Ferrell and Gresham state it, Ferrell et al. (1989) note that both models and their subsequent synthesis model (Ferrell et al., 1989) rely on the theory of reasoned action (Fishbein and Ajzen, 1975). This is a parsimonious theory which assumes that people are rational and make systematic use of available information; behaviour follows logically, via intentions, from the information. Ferrell et al.'s model provides a synthesis of Kohlberg (1969), Ferrell and Gresham (1985) and Hunt and Vitell (1986). The theory of reasoned action which forms the basis for decision-making theory (not specifically ethical decision making) provides the stage structure of the model: awareness/problem recognition, search, evaluation, choice and outcome. Two important constructs are said to affect the recognition of the presence of an ethical issue; first, a social learning construct incorporating the influences of the social and economic environment and second, cognitive moral development. CMD theory asserts that individuals at a lower stage may not see a situation as an ethical one, whereas an individual at a higher stage may identify the ethical dimension of the same situation. The search stage is termed cognitions and is determined by CMD, representing how an individual might deal with an ethical issue. The evaluation stage retains moral reasoning (selection of teleological or deontological judgement) as a separate stage in the model. The choice stage is depicted as determination of intentions which precedes action/behaviour. According to the synthesised model, the first four stages (problem recognition, search, evaluation, choice) are moderated by other variables included in the original Hunt & Vitell and Ferrell & Gresham models. There are various aspects of organisational culture, including opportunity, and individual moderators such as knowledge, values, attitudes and intentions. Once intentions have been formed, however, Ferrell et al. depict them as leading directly to behaviour. Unlike the Hunt and Vitell and other models, Ferrell et al. do not accommodate the possibility that situational factors might moderate the relationship between intentions and behaviour. Finally, a feedback loop indicates that the consequences of actions are evaluated which updates the organisational culture moderating variable. Despite what some would regard as misspecification by leaving out factors which can cause actual behaviour to differ from intended behaviour, Ferrell et al.'s model provides an important synthesis of elements of moral philosophy, behavioural and cognitive-developmental psychology, plus many moderating variables. It remains one of the most complete and detailed of extant models. However, in common with most of the ethical decision making models, it has not yet been the subject of empirical tests. Section 2.3.3.3 discusses reasons for this.

The model proposed by Dubinsky and Loken (1989) is somewhat less complex than the other marketing models discussed above. It asserts that the immediate antecedent of ethical behaviour is intention. Again, based on the theory of reasoned action (Fishbein and Ajzen, 1975), intentions are determined firstly by the individuals evaluation of the behaviour; consideration of likely outcomes, and assessment of “goodness or badness” of those outcomes. Although the process of assessment is not specified, it appears to be broadly based in moral philosophy and in particular, utilitarianism. Various other factors moderate the determination of intentions. These include the individual’s belief about the opinions of significant others and by the individual’s willingness to comply to their opinions i.e. subjective norm toward the behaviour. Individual evaluation and subjective norm combine to generate the decision-makers intentions which Dubinsky and Loken define as the subjective probability of engaging in behaviour. There is no feedback loop and Dubinsky and Loken do not address the issue of the relationship between intentions and behaviour. They discuss various advantages of their model over other marketing models such as those of Hunt and Vitell and Ferrell and Gresham, including the relatively small number of model components. This means, they argue, that model testing is realistic. The empirical literature, reviewed in the next section, does not, however, reveal any subsequent testing. Another advantage of the Dubinsky and Loken approach is that it does not assume that the individual decision maker identifies the situation to have ethical content, in contrast to models explicitly incorporating teleological and deontological reasoning components.

Trevino’s interactionist model (1986) was one of the first major models of ethical decision making for business organisations generally as opposed to models specific to the marketing field. It takes Kohlberg’s model as a starting point, representing how managers think about moral dilemmas. The recognition of an issue as a moral one is an implicit assumption of the model, and is presumably incorporated within the cognitions element. Cognitive moral development stage determines the process of deciding what is right or wrong. Cognitions alone, however, do not explain ethical/unethical behaviour; the model proposes that individual and situational variables interact with cognition to determine behaviour. Trevino’s individual variables are ego strength (self-regulatory skills), locus of control (Rotter, 1966; perception of control over events in life) and field dependence (extent to which an individual functions autonomously). Moderating situational variables include elements of immediate job context such as reinforcement, organisational culture and characteristics of the work. Individual and

situational variables therefore moderate ethical judgement to determine behaviour. Propositions are generated concerning the way in which these variables interact with CMD.

Two further models worthy of note are Bommer (1987) and Stead, Worrell and Stead (1990). Bommer et al present a general model which attempts to identify the different factors, environmental and personal, which influence ethical decision-making in the business context. It is a model which reverts to the treatment of the cognitive processes of ethical decision-making as a black box, focusing instead on the myriad of influential factors. The broad categorisation of factors is as follows: Individual attributes and personal, professional, work, government/legal and social environments. The number of variables included is great, and the model attempts to be all-encompassing. In this respect it is similar to the model proposed by Stead, Worrell and Stead (1990). In this model individual factors including personality, socialisation, ethical philosophy, ethical decision ideology and ethical decision history combine with organisational factors (managerial philosophy and behaviour, job characteristics and reinforcement system) and external forces (the broader influences of political, economic and social institutions) to influence ethical behaviour in organisations. There are various feedback loops to represent aspects of learning relevant to ethical decision-making. Due to the attempts of both these models to be comprehensive, they unfortunately provide little in the way of specific testable propositions and few studies have used them as a basis for either further theory development or empirical testing.<sup>1</sup>

Rather than proposing a different model, Jones (1991) contributes to the theory by supplementing existing models with the notion of moral intensity in his issue-contingent model. He incorporates the intuitively plausible notion that the characteristics of an ethical issue itself can influence the decision-making process. Jones' second contribution is to provide a synthesis of the models of Rest, Trevino, Ferrell and Gresham, Hunt and Vitell, and Dubinsky and Loken (see Figure 2.1). It is built around Rest's (1986) model of the four psychological processes of ethical decision-making outlined in section 2.2.2 and it includes the moderating influences of individual and situational factors. Organisational factors are said to present particular challenges to the ethical decision-maker primarily at the intentions and behaviour stages. Implicit organisational pressures may determine intentions, and explicit organisational factors

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1 One study which does cite Bommer et al.'s model is Kennedy and Lawton (1993). Kennedy and Lawton's study, however, has no particular relevance to this thesis, as it deals mainly with issues at an inter-organisational level rather than at an inter-personal level.

may affect behaviour despite (good) intentions. The main focus of Jones' narrative, however, is the provision of a framework in which ethical decision making in situations of differing moral intensity can be interpreted and the ways in which different elements of moral intensity impact upon the four stages can be examined.

The Jones model offers intuitive, theoretical and empirical evidence for the notion that the processes of ethical decision making are contingent on characteristics of the moral issue. Moral intensity is a construct which captures "the issue-related moral imperative in a situation" (Jones, p.372). It relates to the moral issue itself, rather than the individual decision-maker or his/her context. There are six dimensions to the moral intensity construct, for which the author claims only content validity:

1. Magnitude of consequences i.e. the sum of the consequences
2. Social consensus i.e. the degree of social agreement that an act is good/acceptable or bad/unacceptable
3. Probability of effect - a joint function consisting of the likelihood that the moral act will happen and the likelihood that it will actually cause harm
4. Temporal immediacy - how soon is the act likely to have consequences
5. Proximity - the feeling of nearness, psychological, physical, cultural, and social
6. Concentration of effect - an inverse function of the number affected by an act of given magnitude

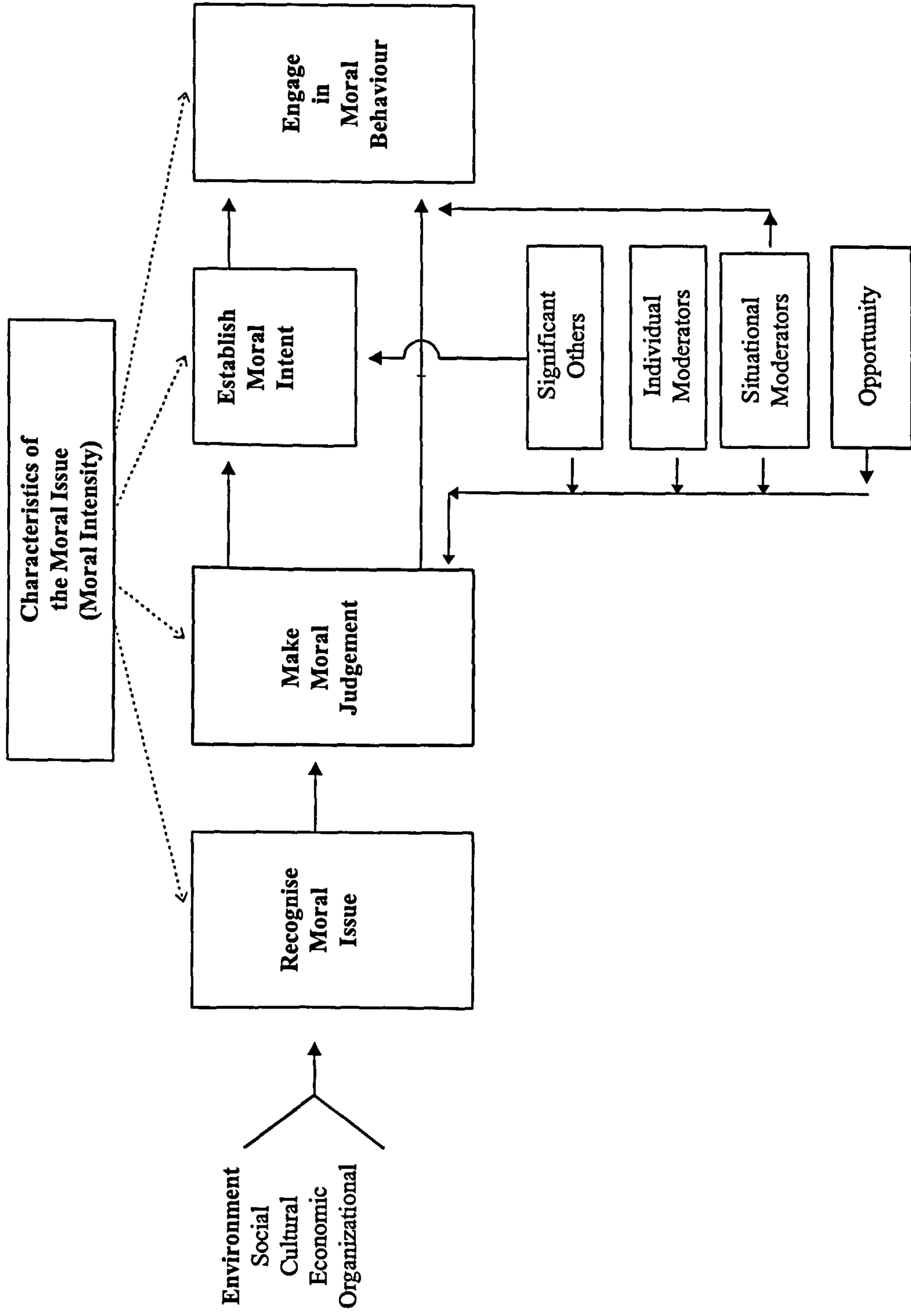
The dimensions are derived from arguments from moral philosophy based on notions of proportionality; such arguments are echoed in the legal system in the weighting of moral acts. Jones relates aspects of moral intensity to the four cognitive processes. For instance, recognition of a moral issue is made more probable by intensity, both in terms of recognition of consequences to others and in terms of volition (volition is affected by "associational responsibility" which is heightened by proximity, temporal immediacy, etc.). The effect of moral intensity on recognition of a moral issue is an essential part of the Jones model, because behaviour is seen as being driven by schemata or scripts. In the absence of recognition of an issue as a moral one, an alternative script may be employed such as "rational" economic decision-making; ethical decision-making models may be inappropriate. In the Jones model, individual difference variables can also affect recognition. For example, individuals with internal locus of control perceive that they have more control over events, therefore higher

perceived volition. The second stage is moral judgement. Jones cites evidence (Taylor, 1975; Weber, 1990a; Higgins et al., 1984) that suggests that the level at which people reason may be context dependent, instead of following the original Kohlberg notion that ethical reasoning is determined in the main by the level of CMD. He proposes that the cognitive processes of moral reasoning are issue dependent i.e. issues of high moral intensity will elicit more sophisticated (higher stage) moral reasoning than issues of low moral intensity. Thirdly, the intentions stage recognises that, for various reasons, deciding what is “the right thing to do” may not correspond to actually deciding what to do i.e. forming intentions. Moral intensity affects the intentions stage through a variety of psychological mechanisms e.g. intensity provokes affect (emotions, moods, feelings) which can generate intentions. The final stage is moral behaviour. Jones discusses various links between intensity and moral behaviour such that ethical behaviour is more likely to be observed where moral intensity is high.

Issue contingency had not previously been explicitly recognised in the ethical decision making literature. According to Singhapakdi et al. (1996), however, the models of Hunt and Vitell (1986), Ferrell and Gresham (1985) and Trevino (1986) did include *implicit* recognition of the role of situational or issue-related factors in ethical decision making. Hunt and Vitell depict individual perceptions of an ethical problem (implicitly including the nature of the issue itself) as the starting point for the process of ethical decision making. Ferrell and Gresham specify the ethical issue as the precedent to the decision making process. Trevino’s interactionist model is concerned with how the individual and the situation interact to produce ethical/unethical behaviour. She includes situational factors i.e. those concerned with the context in which the decision making takes place, as determinants of ethical decision making. The nature of the ethical issue itself could be seen as one of these situational variables.

Jones concludes that if his model is empirically supported, then controlling for moral intensity becomes an important part of testing any of the models of ethical decision-making e.g. it may affect the relative weighting of personal and situational variables. Furthermore, he claims that some models may not be applicable at all if the impact of moral intensity on recognition is not recognised. Finally, Jones claims that such empirical support would require a reinterpretation of much of Kohlberg’s work on CMD and of the research based on it; future CMD research needs to be controlled for traits of the issue involved. The moral intensity construct has since been incorporated into a number of empirical studies (Singhapakdi et al., 1996; Harrington, 1997; Singer and Singer, 1997; Marshall and Dewe, 1997). These are reviewed in s. 2.3.3.3.

Figure 2.1: Jones' synthesis model of ethical decision making



### 2.3.3.2 Accountancy-specific frameworks

Integral to the examination of accountancy-specific models, it is important to consider the current debate over whether ethical decision making is sufficiently different for public accountants to warrant the development of a specific theory. Models such as Trevino's and Jones' are intended for the general organisational environment. Do factors exist in the organisational environment of public accounting that render such approaches invalid? There have been a small number of studies which have attempted to develop models especially for the accountancy context (Schlacter, 1990; Lampe and Finn, 1992) and other accounting academics have supported such an endeavour (Gaa, 1992). Their justification for a separate theory is considered next.

Gaa (1992) notes that the original cognitive-developmental theories of Kohlberg and Rest were intended to be "context-free", and were concerned purely with the psychological issue of moral development. Complications generated by particular roles were initially given little attention in the study of ethical decision making. Although models such as Trevino's and Jones' introduced additional situational variables, Gaa argues that special occupational roles in the professional accountancy context and its institutional structures make it a special case needing a separate theory of ethical decision making. Gaa's reasoning behind this assertion is that decision makers have to consider *potentially conflicting* norms and rules generated from role-defined norms of behaviour, employer-determined modus operandi, and profession-determined rules and code of conduct. Normally, ethical decision dilemmas are said (Liedtka, 1989; Glover et al, 1997) to fall, by definition, into one of two categories. First, there can be conflict within the individual arising from two or more personal values being given different importance (Liedtka, 1989). Second, there can be conflict between individual and organisational values (Liedtka, 1989) e.g. the dictates of professional ethics can conflict with personal ethical standards (Schlacter, 1990). Ethical dilemmas arising from conflict between *different organisational values* e.g. profession vs. firm, add a new dimension to ethical decision making in the accountancy context.

Schlacter's (1990) model attempts to reflect the context-specificity of ethical decision making in accounting. It depicts the formation and revision of an individual's code of conduct to guide ethical decision making drawing implicitly on ideas from the behavioural school of social psychology, discussed in section 2.2.2, rather than on cognitive-developmental notions. On joining the profession, the individual's existing code of conduct or working set of moral values

is said to be implicitly compared to those of colleagues and to values implied by the employers operating style, and a cognitive process of evaluating and revising the code begins and continues with every decision made. Most professional judgements are routine (Gibbins, 1984). It is the non-routine judgements which are dealt with consciously, having been identified as ethical issues.

“An event may be considered non-routine... because the code does not appear to cover the specific circumstances at hand or because a conflict between ethical and other objectives is involved” (Schlacter, 1990, p.840).

A conscious judgement is made as a result of which the individual's code may be reassessed and revised. Feedback loops are also included dealing with the impact of the consequences of routine professional decisions on the individual code of conduct. The formation and revision process takes place in a particular context. Schlacter analyses the contextual influences on the individual's code from three perspectives: office, firm, institute. He posits that various aspects of office culture help shape the individual's ethical sensitivity, including the attitude and commitment of local partners to ethical standards. Further consideration of the situational factors specific to accounting, and of Schlacter's propositions concerning situational factors, is provided in chapter 3. Gaa's notion of potentially conflicting rules or norms are discussed and propositions raised. It is the generation of these propositions which is the novel and accountancy-specific aspect of Schlachter's paper. In terms of model structure, process or constructs, however, there is little new or distinct from the general models. One significant exception, however, is the inclusion of all professional judgement decisions in the model (rather than only those identified as having an ethical dimension) and the consequent distinction between routine and non-routine ways of processing them. This raises the question of whether ethical decision making is any different to other professional judgement decisions in accountancy. The notion of treating ethical decision making in this way, as a subset of professional judgement decisions, can be found elsewhere in the accounting ethics literature. For example, O'Malley (1992) suggests that there is little difference between ethical judgements and judgements relating to technical issues. Treating ethical decision making as a subset of professional decision making assumes that the same cognitive process will be used both for ethical and other professional decision making under the same set of influential variables. Intuitively, this seems to be oversimplistic, flying in the face of a fairly extensive literature on ethical decision making. It also ignores potential conflicts between ethical and



professional, assuming that an ethical outcome is always the same as a professional outcome. Recognising these points, most of the accounting ethics literature *does* regard ethical decision making as a distinct type of judgement. For example, Lampe and Finn (1992) model ethical decision making in auditing as a specific and separate activity, requiring that issues are identified as ethical ones, as is common in the marketing and general models, and Gaa (1992) states (p.61) that:

“...the time has come to develop a theory of the psychology of moral judgement and behaviour which will explain accountants’ actions in ethical situations. Such a theory would presumably fit with other theories - e.g. theories about the ways in which accountants make professional judgements in non-moral tasks on the one hand, and theories of moral action on the other.”

Lampe and Finn’s (1992) model is one which attempts to be specific to the accountancy context by synthesising the cognitive-developmental models of Rest, Trevino and Jones with the posited notion of strong rule-following behaviour of accountants. The analysis is, however, conducted at a high level of generality and lacks clarity concerning its derivation from the three general theories (Gaa, 1992).

Whilst there are the above small number of accountancy-specific studies, many other researchers do not appear to hold the view that a separate theory is required for accountants’ ethical decision making, nor that ethical decision making in accounting can be explained in terms of general professional judgement. There is a growing body of literature, reviewed in the next chapter, on accountants’ ethics and decision processes, e.g. Ponemon (1990), Armstrong (1995), which is based firmly on cognitive-developmental theories of ethical decision making with no adaptations for the accountancy context. Indeed, some studies have used general or marketing models to empirically test ethical decision making in accounting (Shaub, 1989; Tsui, 1994). Clearly, there are very important situational influences upon accountants ethical decision making processes which will be discussed in the next chapter. However, in terms of the modelling of ethical decision making, this thesis contends that the situational influences and contextual factors in accountancy can be incorporated into the general and marketing models; these are sufficiently sophisticated to adapt to diverse occupational contexts, rather than requiring the development of new models.

There does appear to be, in fact, general agreement that the study of business ethics does not need further models of ethical decision making. Rather, reviewers (Ford and Richardson, 1994; Randall and Gibson, 1990) have highlighted the need for extension and testing of plausible existing models and usage of clearly stated terminology such as that used by Jones (1991). The next section reviews the most significant of the studies that have attempted empirical testing or partial testing of the ethical decision making models.

### **2.3.3.3 Empirical testing of the frameworks**

Due to the complexity of the constructs involved in ethical decision making, and the difficulty of operationalising them, relatively few attempts have been made at empirical testing. This section provides a review of empirical research which has been conducted. Most studies are partial in nature. That is, they tend to focus selectively on a particular element e.g. ethical judgement rather than intention or behaviour, and the variables which affect that component. This reflects the many problems which would be encountered in attempting to design a comprehensive test. They arise from the complexity of the decision making process. Not only are there different stages in the process, but also many moderating and influential variables affecting the stages and the relationships between stages. All of these must be conceptualised and operationalised discretely and the effects of each separately identified. Operationalisation is hindered by the lack of widely accepted, commonly used methodologies and validated measurement scales for business ethics research. A further practical problem in the case of a questionnaire-based study concerns the excessive length of questionnaire needed to cover all the aspects of ethical decision making. Various authors (Rest, 1984; Singhapakdi and Vitell, 1990; Tsui, 1994) have therefore concluded that testing all the elements of any of the existing models in a single study is impractical or even impossible. Rest himself acknowledged (1984, p. 29):

“There does not exist any current study that simultaneously assesses all four constituents in the prediction of moral behaviour...Anyone who can design a good study to do this deserves a Nobel prize.”

A summary of the empirical studies reviewed in this section is provided in Table 2.4.

Table 2.4: Summary of empirical testing of ethical decision making models.

Author and year	Model tested	Subjects (number)	Response rate	Method	Results
Vitell and Hunt 1990	Hunt and Vitell - effect of deontological/teleological evaluations on ethical judgement and of ethical judgement and teleological evaluations on intentions	US sales executives (126)	19.1%	Questionnaires with a single scenario	Supported hypotheses include: <ul style="list-style-type: none"> <li>• ethical judgement influenced by teleological and deontological evaluations</li> <li>• intentions influenced by ethical judgement and teleological evaluations</li> </ul>
Mayo and Marks 1990	Hunt & Vitell as above	US market researchers (104)	19%	Questionnaire with scenarios	Same results as Vitell and Hunt (1990) above
Singhapakdi and Vitell 1990	Hunt & Vitell - perception of ethical problems and alternatives	US market researchers (529)	26.5%	Questionnaire with scenarios	Machiavellianism and ethical policies of organisations influence ethical decision making, but no evidence to support the influence of gender or locus of control.
Fraedrich and Ferrell 1992	Hunt and Vitell - effect of philosophy types on ethical decision outcomes	US managers (189)	27%	Questionnaire with scenarios	Different philosophy types do affect ethical decision making outcomes. Adds the concept of risk and presents evidence to support the interactive effect of risk and philosophy type on outcomes.
Singhapakdi, Vitell and Kraft 1996	Hunt & Vitell and Jones - moral intensity on perceptions and intentions	US market researchers (453)	23%	Questionnaire with scenarios	Moral intensity has 2 (not 6) dimensions: <ul style="list-style-type: none"> <li>• actual harm to victims</li> <li>• "social pressure"</li> </ul> Both significantly determined ethical perceptions and intentions
Trevino and Youngblood 1990	Trevino - effects of social learning, CMD, locus of control (LOC) and reinforcement on ethical decision making	MBA students (90 split into 3 groups)	100%	Lab. experiment - "in-tray" decision making exercise	<ul style="list-style-type: none"> <li>• CMD and LOC influenced ethical decision making directly</li> <li>• Ethical decision making influenced <i>indirectly</i> by LOC and vicarious reward/punishment - via outcome expectancies</li> </ul>

Table continued on the next page

*Table 2.4 (continued): Summary of empirical testing of ethical decision making models.*

Author and year	Model tested	Subjects (number)	Response rate	Method	Results
Harrington 1997	Jones - issue contingency and individual characteristics on moral judgement and intent	Information systems employees (219)	100%	Questionnaire administered to a large group	<ul style="list-style-type: none"> <li>• Social consensus is a significant determinant of judgement and intent</li> <li>• Rule orientation and denial of responsibility influence moral judgement and intent</li> <li>• Interaction effects of rule orientation and denial of responsibility with social consensus are significant but not as strong as the main effects</li> </ul>
Jones and Hildebeitel 1995	Schlacter (accountancy-specific model) - effects of personal characteristics, professional and organisational expectations on moral reasoning	US management accountants (250)	25%	Questionnaire with scenarios and list of principles	Ethical decision processes affected by age, gender, education and by organisational support for ethics (i.e. organisational expectations).
Shaub 1989	Hunt & Vitell - recognition of ethical issues	US auditors in a single firm (207)	60.7%	Questionnaire with one scenario	Individual ethical orientation (ethics opinions) did not affect sensitivity to/recognition of ethical issues. Neither did professional or organisational commitment
Tsui 1994	Trevino	Experienced Hong Kong auditors (80)	Not specified	Questionnaire with one scenario	Ethical decision making significantly explained by LOC both directly and through interaction with CMD and context variable, size of audit fee
Gibson and Frakes 1997	Fishbein and Ajzen's theory of reasoned action	US CPA's (188)	27%	Randomised response questionnaire with scenarios	<ul style="list-style-type: none"> <li>• Attitude towards behaviour and subjective norm explained a significant proportion of unethical intentions</li> <li>• "Beliefs" were the source of attitudes and subjective norms</li> </ul>

Initially, Hunt and Vitell's model received the most attention with three empirical studies being published in 1990 testing components of it. All three studies found empirical support for the validity of the theoretical framework. Vitell and Hunt (1990) examined the impact first, of deontological and teleological evaluation on ethical judgement, and second, of ethical judgement and teleological evaluation on intentions. Their results support the hypotheses raised from the model concerning these elements of the ethical decision making process. Mayo and Marks (1990) also tested components of the Hunt and Vitell model on US market researchers. Support was found for all four of the hypotheses concerning the effect of specific aspects of philosophical reasoning on ethical judgement and intentions.

The third 1990 study of the Hunt and Vitell framework was conducted by Singhapakdi and Vitell. Again, they chose to test a specific section of the framework, using US marketing managers as subjects. They examined the impact of aspects of individual personal experience and organisational environment on the perceptions of ethical problems and on perceived alternatives. This study was the first to incorporate a "manipulation check" into the study design; it ensured that the scenarios used were perceived by participants as representing ethical issues or problems, as this perception is modelled by Hunt and Vitell as a prerequisite of the ethical decision making process. The study found that the Machiavellianism<sup>1</sup> personality variable impacts on perception of ethical issues and that ethical policies of organisations are determinants of perceived alternatives. There was no support, however, for the influence of locus of control or gender on ethical decision making. This runs counter to the findings of a number of studies which suggest that females are more ethical than males (Betz et al., 1989; Tyson, 1990) and that people with an internal locus of control are more ethical than those with external locus of control (Trevino and Youngblood, 1990; Tsui and Gul, 1996). The ethical significance of gender is discussed further with regard to accountants in section 3.3. Gender and locus of control are also incorporated in the model, developed in chapter 4, tested in this study. The Hunt and Vitell framework has been the specific subject of two further empirical studies - Fraedrich and Ferrell (1992) and Singhapakdi et al. (1996). The results from Fraedrich and Ferrell's (1992) study support the notion that moral philosophy type impacts on ethical decision outcomes. The main thrust of the study is, however, to propose and test the idea that different types of *perceived risk* e.g. financial, social, psychological, constructs not included in any of the multivariate models, interact with philosophy type to influence outcomes. For

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<sup>1</sup> Machiavellianism has received considerable attention in marketing research. A general discussion of its potential impact on ethics in marketing is provided by Hunt and Chonko (1984).

example, their data show that egoists, act deontologists and act utilitarians were more likely to change their decisions when financial risk was introduced than rule deontologists or rule utilitarians. More research is required to further explore the role of risk in ethical decision making. Singhapakdi et al.'s (1996) study explicitly examined the impact of moral intensity (Jones, 1991) on perceptions of ethical problems and on intentions. Results indicated that the six component moral intensity construct has two underlying dimensions, actual harm to the victim and "social pressure", and that both dimensions significantly determined ethical perceptions and intentions.

Trevino and Youngblood (1990) conducted path analysis on the results of a laboratory experiment involving MBA students in a decision making class. The study tested a part of Trevino's (1986) interactionist model described above. The students were asked to complete a decision making "in-tray" exercise and a post-exercise questionnaire to measure CMD and locus of control. The group was split into sub-groups with varying "social learning conditions" (i.e. various organisational rewards/punishment and control for different scenarios). The findings indicate that ethical decision making is affected directly by level of CMD and by locus of control. Locus of control also has an impact indirectly through outcome expectancies, as does vicarious reward/punishment.

Harrington's (1997) study examines the effect of social consensus on the moral judgement and moral intentions components common to many of the models. Further, she examines the impact of two individual variables, rule-orientation and denial of responsibility, on judgement and intent. Finally, the effect on judgement and intent of the interaction of social consensus with the individual variables is tested. The study is conducted on information systems employees and social consensus assessed by means of a separate sample of students enrolled on computer-related courses. Harrington reports that the most important finding of the study is the effect of social consensus and the two individual variables on moral judgement and intent, i.e. specific ethical decision making components. Social consensus appeared to influence both components directly. This study did not attempt to untangle the different components of moral intensity as proposed by Jones; in fact, the study used varying degrees of seriousness of consensus in order to vary social consensus, thereby potentially confusing two of the six components. However, given that accurate measures of issue contingency may be impossible to construct (Jones, 1991), Harrington's research represents at least a significant step forward in the understanding of the role of issue contingency in ethical decision making.

Other empirical studies have sought to confirm the existence of a relationship between moral intensity and ethical judgement without examining any of the relationships or hypotheses generated by the full synthesised Jones model. Singer and Singer (1997) constructed simple, single-item scales to measure the components of moral intensity. They found the dimensions of magnitude of consequences and social consensus to be highly significant determinants of observer judgements of ethicality. However, they omit the fifth moral intensity component, proximity, including instead the concept of scope of justice from the organisational justice literature. Further, they provide few details of the basis for, or validity of, the single-item scales.

Despite the lack of empirical evidence supporting Jones' definition of the six components of the moral intensity construct, many researchers have implicitly accepted it. Consideration of Singer and Singer's results highlight the fact that little research has been conducted to confirm the legitimacy of these six components. Marshall and Dewe (1997) attempt to establish "just what moral intensity is". Their results, in fact, provide little support for the six components. They conclude that the components are not universally perceived, and that individuals think about situations in "complex and multidimensional ways". They also raise questions about the efficacy of the use of scenarios for investigating ethical decision making, questions which will be considered in the methodology chapter. Further research is needed to confirm or refute Marshall and Dewe's scepticism concerning the moral intensity construct, as their study was based on a very small sample. In the meantime, interest in Jones' construct is maintained mainly, it seems, due to its intuitive plausibility.

There are a small number of studies empirically testing various models of ethical decision making in the context of accountancy. Lampe and Finn (1992) and Jones and Hildebeitel (1995) test accountancy-specific models whereas Shaub (1989), Tsui (1994) and Gibson and Frakes (1997) test general or marketing models adapted for use on accountants. Lampe and Finn (1992) test their own five-element model, discussed briefly above. The only conclusion they draw which is of relevance in this section is that their model (a synthesis of Rest, Trevino and Jones) was more helpful in explaining decisions made than was the professional code of ethics. Jones and Hildebeitel (1995) generate and test hypotheses from Schlacter's (1990) belief revision model. Subjects were members of the US Institute of Management Accountants. They were presented with five ethical situations generated from the Institute of Management Accountants' professional ethical guidance and asked which principles of ethical conduct would

be appropriate. They were also asked whether their employer encouraged ethical practice and/or provided ethics training. The strongest results relate to the influence of personal characteristics of age, gender and education, and of organisational support for ethics on the moral decision process. All three personal characteristics were found to be significant, and will be discussed in the next chapter. Organisational expectations, evidenced by employer encouragement of ethical practice and provision of ethics training, was found to be related to ethical decision making; the authors conclude that the moral development of corporate accountants can be enhanced by organisational support. In terms of the need for accountancy-specific theory of ethical decision making, Jones and Hildebeitel's test of Schlacter's model provides no support for the notion that accountants' ethical decision making is significantly different to other business or marketing practitioners.

Shaub (1989) and Tsui (1994) both test general or marketing models adapted for use on accountants in their doctoral dissertations. Shaub developed hypotheses from the Hunt and Vitell marketing framework, and Tsui from the Trevino interactionist model. Shaub examined auditors' abilities to recognise ethical issues in a professional situation (ethical sensitivity), evaluating the effects of individual ethical orientations, professional and organisational commitment. His results did not support the hypothesis that these three variables affect ethical sensitivity. Tsui examined auditors ethical decision making in an audit conflict situation. The variables included were CMD, locus of control and a contextual variable, size of audit fee. Tsui's results indicate that the locus of control personality variable significantly explained ethical decision making behaviour, both directly and by interacting with CMD and the context variable. Although not mentioned, the significance of the context variable could be interpreted in terms of Jones' moral intensity construct. Tsui concluded that the interactionist perspective on ethical decision making is a valid and important which should continue to guide research. Finally, Gibson and Frakes (1997) test the Fishbein and Ajzen (1975) theory of reasoned action using US Certified Public Accountants (CPA's). The subjects were asked to use both self-reports and randomised response techniques to report decision making in job-related situations. The findings of the study on the differences in results from the two different methods of reporting are interesting, and will be referred to later in the context of methodological discussions. In terms of validation of the theory of reasoned action as applied to ethical situations, the author's conclude, not surprisingly, that "an accountant's intention to behave ethically is a function both of attitude toward performing the behaviour and social pressures, as well as the beliefs behind these constructs" (p.169).



In summary, empirical literature on ethical decision making models is still at a relatively embryonic stage, especially with regard to accountants. Broadly, it appears to support the notion of different stages in the decision making process, as proposed by Rest (1984), and the idea that individual and situational variables may influence the stages directly, and/or by interaction with other moderating variables. The empirical literature, however, does not exhibit a high degree of rigour with respect to methodology. In their survey of methodology in business ethics research, Randall and Gibson (1990) are very critical of the many aspects of the research process including the choice and exploration of reliability and validity of measures, the use of convenience samples, the lack of adequate theoretic framework, conceptualisation and use of hypotheses, and the reliance on univariate or bivariate statistical analysis. Many of these criticisms remain as valid now as they were almost a decade ago in 1990. They are discussed further in the context of chapter 5 of this thesis. The empirical literature is still predominantly survey-based, conducting partial tests of ethical decision making models using convenience samples although there are an increasing number of studies employing multivariate techniques.

## **2.4. The role of values in ethical decision making**

### **2.4.1 Introduction**

The above review of antecedents of ethical decision making and of variables included in the various multivariate models reveals that values are frequently conceptualised as informing moral reasoning and action. Personal and organisational values are amongst the most widely mentioned variables in the multivariate models of ethical decision making. Due to the frequent appearance of the term “values” in the literature, and its importance to the rest of this study, further discussion and clarification is warranted. Thus the role of this section is to attempt to clarify the meaning of the term and to review ways in which values might affect decision making and choice in the business context. Section 2.4.2. examines the nature of values, distinguishes between attitudes and values, and discusses the role of values particularly in decision making. Section 2.4.3. explores the differences between values and the other main drivers of ethical judgement, namely CMD and moral philosophy. The influence of personal and organisational values on ethical decision making are dealt with separately in sections 2.4.4. and 2.4.5. respectively. The latter of the two sections includes a brief review of some of the literature on the effects of organisational culture on ethical decision making. Finally, the relationship between personal and organisational values is investigated in section 2.4.6.

#### **2.4.2. The nature and role of values**

“Value” is a widely used term with a number of meanings. It seems to be often used loosely in conjunction with other terms such as attitudes and beliefs. Furthermore, it is a technical term in many disciplines such as economics, philosophy, mathematics, cultural anthropology, music and art. There is, therefore, no single, unidisciplinary approach to the study of values. This can lead to confusion and render the term potentially useless unless it is clearly defined by writers in particular contexts. A widely quoted general definition is, however, provided by Kluckhohn (1951):

“A value is a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable which influences the selection from available modes, means, and ends of action.” (p. 395)

More succinctly put by Kilby (1993, p.32), values are “conceptions of the desirable”. There is a debate about how broad the definition of “the desirable” should be. A narrow definition includes only evaluative values i.e. beliefs about that which is good, best or right. A wider definition includes a second category of values, worth values, which relate to beliefs about what is important, significant and worthy. Kilby provides a most thorough review of the study of values, including a fairly extensive list of the different types of values. These range from culture-wide moral values to limited-domain values which operate in specific environments such as institutions to produce judgements and to determine conduct. Kilby notes that it is conceivable that an individual’s personal values may be different to the institution’s, but his role as an agent obliges him to carry out the official values. This notion has resonance in terms of the organisational context of the current study, and it will be explored later, in section 2.4.6. In addition to considering the potential conflict between personal and institutional values, some scholars have considered the relationship between different individually-held values. Among the scholars are those who have proposed that values form systems, so that individuals and societies can be compared on the basis of value systems or hierarchies in addition to the particular values held (Rokeach and Ball Rokeach, 1989; Musser and Orke, 1992). Probably due to the difficulties of researching the notion of value systems, there are few empirical studies supporting it.

The ethical decision making literature often uses values and attitudes synonymously. Clarity of definition is essential here. By convention, it seems that there is agreement that attitudes are dispositions towards specific things such as particular political parties, types of fashion, etc. By contrast, values are deeper, broader and more general. They are held to be dispositions towards general things such as ideologies or modes of conduct. Individuals are expected to hold many attitudes but few values. An important justification for the separation of the two concepts arises from the notion that many attitudes are based on underlying values<sup>1</sup>. For example, an individual may have a particular attitude towards time-keeping based upon the value of professionalism (though it may also be motivated by the experience of punishment of tardiness). Another example more pertinent to professional ethics is that of a junior auditor who may have an unfavourable attitude towards doing excessive overtime, and is perhaps, therefore, willing to sign off audit tests prematurely, based on the high value he/she attaches to reciprocity or fairness between employer and employee.

Values have a profound influence on our lives in a number of ways. In a review of studies of the role of values, Kilby says that values can provide the “groundplan of existence” (1993, p. 56) for individuals and for entire societies. For societies, moral values are necessary for group functioning. For individuals and for groups, values provide meaning to life, motive for, and consistency and predictability of behaviour. Additionally, however, values have an important role to play in decision making. They provide standards by which individuals and groups make judgements and choices. Values are nearly always involved in significant life choices, such as choice of a career, mate, friends, etc. However, the act of valuing and the use of values is also a powerful force in organisational decision making (Schmidt and Posner, 1982; Akaah and Lund, 1994). Wherever there is more than mere momentary weighing of immediate alternatives, values are likely to be influential. Furthermore, as mentioned above, values can provide the basis for the formation of attitudes. In the decision making context, the question arises as to whether knowledge of values can help predict or explain attitudes and behaviour. Rokeach’s (1973) research found that a number of value concepts were statistically related to particular attitudes. However, it is generally agreed that knowing a person’s values does not necessarily facilitate prediction of their attitudes. This is firstly because some attitudes simply do not have value foundations, and secondly because different individuals ascribe different interpretation and meaning to values. Furthermore, how values affect attitudes is dependent upon interaction

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1 Attitudes may also be derived from other sources such as significant others or ego needs.

with other attitudes, plus other factors such as temperament, wants, and situational influences such as group membership.

The same types of complication exist in the relationship between values and behaviour, or whether people practice their values. There is always the possibility of violation of values because values do not operate in a behavioural vacuum. There is an interplay of values, motives, opportunities, rewards, punishments, and the influence of significant others. There are very great obstacles to the study of the practice of values not least due to the uncertainty about the behavioural effects of values, especially the broad, general values. While Rokeach (1973) provided evidence of correlation between certain of these general values and various behaviours, for example, between the valuing of equality and joining civil-rights organisation, his work does not produce any evidence on causality. As noted above, individual interpretation of values varies. Commenting on the lack of empirical research into the relationship between values and behaviour from any discipline, Kilby (1993) nevertheless concludes that there are two additional factors which help determine whether a value concept is likely to produce action. They are first, the degree of clear or conscious conception of a value, and second, the strength of conviction. An individual is less likely to act on a value unclearly conceived or weakly held which can easily be cancelled out by other influences. If this is the case, it has important practical implications for researchers interested in investigating the role of values in ethical decision making. While there are huge obstacles in the way of researchers' quantifying and understanding the relationships between different types of values held by single individuals, the measurement of strength of conviction appears to be much more achievable.

### **2.4.3 Values and other drivers of ethical judgement**

The previous section has provided an introduction to the nature and role of values. It has established that values define what is right and desirable, and that, intuitively, it is reasonable to expect that values will be strongly linked to ethical decision making. Earlier sections of this chapter have already shown, however, that the models of ethical decision making have also incorporated other evaluative bases for moral judgement besides values. The purpose of this important section is twofold. First, it will examine the relationship, if any exists, between the values basis for ethical judgement and other bases. This will include considering whether values and other bases are alternatives or complements. Second, this section will attempt to justify the choice of values for use in the current study. Justification derives from theoretical

and methodological problems of alternative bases for moral judgement, and from the benefits of the values-based approach itself. Only the theoretical issues will be addressed here. The methodological aspects are included in the methodology chapter.

There are various bases for moral judgement identified in the ethical decision making literature. Two of the most frequently cited are moral philosophical reasoning and cognitive moral development. There is, however, discussion in the business ethics literature of a third basis for moral judgement concerned with an individual's ethical value system (Rokeach, 1968; Musser and Orke, 1992). It is this basis which is incorporated into the current study. Akaah and Lund (1994, p.417) state that "the potential of ... values as ethics correlates derives from the fact that they are at the heart of individuals' personality and cognitive structure (Parson and Shils, 1951; Pitts and Woodside, 1991; Rokeach 1973). It will be seen in section 2.4.4 that in addition to CMD or philosophy, most of the ethical decision making models also make reference to values or norms at some point in the discussion of decision making processes. In order to avoid conceptual confusion, however, it is important to address the question of whether each of these three main bases for ethical judgement is, in fact, unique, or whether they can all tap the same component of the ethical decision making process.

One way to address the relationships between the three main drivers of ethical judgement is to consider the way they are conceptualised in the multivariate models. This paragraph examines the "philosophy-based" models, drawing out any implications for the values or CMD bases. Ferrell and Gresham (1985) include values as one of a number of "individual factors" influencing ethical decision making. They imply that these values are generated from moral philosophical reasoning - that moral philosophies, learned through socialisation with family, society and education, are the basis of knowledge, values and attitudes which influence ethical decision making. Hunt and Vitell (1986) also conceptualise personal values as being very closely related to moral philosophy. They include teleological and deontological norms in their model, conceptualising the deontological norms as representing personal values or rules of behaviour. Hansen (1992) says that business managers develop and use heuristics, or rules of behaviour, based on the different types of philosophy, to deal with dilemmas. It seems that it is these heuristics which Ferrell and Gresham and Hunt and Vitell call values. These studies are suggesting that values are a direct product of moral philosophical reasoning. The general values literature outlined in section 2.4.2, however, lacks this simplicity and subsequent

research has not confirmed that values and philosophy overlap (see discussion of Carlson and Kacmar, 1997, later in this section).

Other models such as Trevino (1986) and Rest (1986) make little reference to values, and rely on the CMD construct to explain the process of ethical judgement. For Jones (1991), it is the interaction between CMD and moral intensity of the situation which drives moral judgement. The CMD construct concerns what is happening psychologically to facilitate the determination of which course of action is morally right. As discussed in section 2.2.1, social perspective is the key structural element in the development of cognitive moral maturity. Kohlberg (1981) argued that CMD and moral philosophy were consistent with each other yet conceptually distinct, capturing two different aspects of the decision making process - philosophy providing the *justification*, CMD the *explanation* of the psychological process. Little else has been written in the context of the multivariate models on the relationship between CMD and either philosophy or values. Further, it can generally be concluded that there is little consensus in the literature about which is the most appropriate driver of ethical judgement to include in process models of ethical decision making nor how they might relate to each other.

In attempting to draw together the evidence on this subject, there are, however, a few studies which are helpful. First, in an unusual study, Carlson and Kacmar (1997) attempted to integrate three different approaches to perceptions of ethics in organisations - moral philosophies, cognitive moral psychology and ethical value systems - in order to provide a more complete understanding of ethical motivation. They found philosophy and value factors to be the most significant predictors of ethicality. Their results suggested that there is no common underlying dimension to the three approaches, i.e. that the three models are not alternatives for each other:

“Another approach for relating the three ethical models is needed, since results suggested that they are most probably tapping different aspects of ethical perceptions of situation. This being the case, the ethical decision making models will need to include these as three unique and separate elements that somehow combine to explain the ethical decision making process” (Carlson and Kacmar, p.158.)

They conclude that values capture the “ought” motive i.e. the ethical motivation behind action, philosophy captures “what one knows regarding ethical behaviour”, and CMD concerns the moral thought process. Further, individuals may use different aspects of the three components

in different situations. Consistent with Jones' moral intensity construct of proximity, different models were found to be more influential when the subjects were the actors in the scenario as opposed to being observers. Contrary to what is implied by models such as Ferrell and Gresham (1985) and Hunt and Vitell (1986), therefore, Carlson and Kacmar's results indicate that values and philosophy are conceptually distinct.

A small number of other studies have also attempted to link the different models. They tend to do so, however, by making assumptions about the links between the different approaches. Jones and Hildebeitel (1995), for instance, asked subjects to rate 14 philosophy-based principles as to their appropriateness in business decision making. Subjecting the responses to factor analysis, they generate a strong two-factor situation which they *interpret* in terms of CMD stages (factor 1 represents CMD stages 1 and 2, factor 2 representing stages 3 and 4). They offer no particular arguments or theoretical basis for their interpretation and, unfortunately, Rest's Defining Issues Test (DIT) discussed in section 2.2.2 above, was not used as a means of verifying it.

The fact that there are so few studies on the relationship between the different bases for moral judgement is indicative of a lack of consensus on an appropriate programme of research to investigate the complexity of the subject. This does not mean, however, that all ethical decision making research should be suspended. Rather, whilst acknowledging the insufficient state of knowledge about how the models are related, attention should be given to selecting the model which is most appropriate to the particular research design. All three models have significant precedent in the empirical business literature. The remainder of this section will summarise the major criticisms of the CMD and philosophical models of ethical judgement and will explain generally why the values basis was considered the most appropriate for use in this study.

The basis for using philosophy to model ethical judgement is that "it is impossible to develop a framework of ethical decision making without evaluating normative ethical standards derived from moral philosophy" (Ferrell and Gresham, 1985, p. 88). Other authors who exclude normative ethical theories from their models of ethical decision making do so on the grounds that normative ideas are argued not to be good predictors of ethical or unethical behaviour. Trevino (1986) proposed two explanations for this. First, normative moral philosophy is not designed for the purpose of predicting or explaining behaviour. Rather, it "represents an ideal that may not reflect accurately the processes engaged in by people in actual situations"(p. 604).

Second, Trevino argues that the concepts lack validity in the business decision-making context; managers do not think in terms of utilitarianism, justice, rights, etc. Perhaps these criticisms are reflected in the fact that the moral philosophy model is used in a minority of studies of ethical behaviour in the business literature. The majority of studies have used cognitive moral development (e.g. Carmella, 1985; Derry, 1989; Trevino, 1986; Trevino and Youngblood, 1990). This is especially the case in the extensive literature on accountants' ethics to be reviewed in chapter 3. Despite this, CMD was not adopted for use in the current study. An explanation for this lies in considering the criticisms of the theory, summarised next, and the benefits of the values basis.

Various criticisms of CMD theory have been levelled at the methodology underlying the measurement of an individual's ethical stage. These include, for example, the problem of "retrogressive" individuals who appear to violate the invariant stage sequence assumption that movement through the stages occurs in one direction only, and how to empirically verify the existence of stage 6 ethical cognition due to inadequate sampling of subjects. There are also specific methodological problems with the widely used Defining Issues Test. These are considered in chapter 5. Of more relevance to the present discussion is the fundamental criticism that Kohlberg's theory is based on only one possible mode of moral reasoning, justice. Critics believe that this overlooks a range of alternative ethical motivations or orientations, particularly those associated with the affective side of morality such as caring or concern for others (Gilligan, 1982; Walker, 1984). They argue that individuals who do not conform to the justice model will be incorrectly classified by the CMD model. One of the leading proponents of this criticism is Gilligan who argued that men and women have different underlying moral orientations, men operating from a justice framework, and women from a caring framework (Gilligan, 1982). Males' justice framework is, according to Gilligan, informed by the formal and "impartial" logic of fairness and equality whereas females' care perspective is rooted in the psychological logic of relationships, focusing on the moral need for responsibility and care (Gilligan, 1982, p.73). There is still a debate in the literature about whether such a gender difference exists (Rest, 1986; Derry, 1989; Schminke and Ambrose, 1997) and to what extent it might be mitigated in the presence of the powerful organisational norms and roles in business (see section 4.3.2.2). For the purposes of the present discussion, however, this criticism highlights a limitation in the scope of the CMD construct: As Walker has stated, Kohlberg's theory is a cognitive one which "does not speak directly to the issues of moral emotions and behaviors" (Walker, 1984, p. 679). This appears to be consistent with Carlson and Kacmar's



conclusion about the possibility for different models to tap different aspects of ethical judgement and that CMD concerns the moral thought process. Values, on the other hand, are thought to capture the ethical motivation behind action. At a simple level, CMD could be said to explain *how* people make ethical decisions, whereas values explain *why* they do so. Intuitively, investigating ethical motivations rather than moral thought processes in the current study is potentially more useful for improving our understanding of ethical decision making in the specific context of accountancy training. Further, the values model does not suffer from the criticism of being limited in scope, as CMD does. The next section further justifies the choice of the personal values model by addressing the issue of the salience of personal values in the business context.

#### **2.4.4 The influence of personal values**

Section 2.4.2 provided an introduction to the nature and role of values. This was followed by a discussion of the relationship between values and other drivers of ethical judgement in section 2.4.3. These two sections have provided evidence to support the proposition that personal values provide a valid way of attempting to understand ethical judgement. The purpose of this section is to address the question of whether this general proposition is equally valid in a business context. The section will therefore summarise some of the relatively few studies in the business literature which have touched on the subject of the role of personal values.

In Cooper and Frank's (1997) study, a number of different types of professionals in accounting and insurance were asked to rate a series of 16 possible sources of help in dealing with business related ethical dilemmas. Results indicated that each of the 7 groups of professionals rated their "own personal moral values" as the most important, followed by items such as "the fact that your immediate boss does not pressurise you into compromising your ethical standards" and other situational factors. Whilst Cooper and Frank's study does not do a great deal to advance our understanding of the process of ethical judgement or the relationship between different drivers of ethical judgement<sup>1</sup>, it is indicative of the relevance of personal values to individuals in business, and specifically in accountancy profession. It supports the view that, despite

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1 The study's results are based on the direct reports from participants of reliance on different sources of help in ethical dilemma situations. It cannot, therefore, inform the CMD debate which concerns often unconscious cognitive processes.

uncertainty about the precise meaning of the concept, values seem to have an intuitive resonance with people, including business professionals.

Other academic studies have investigated and discussed the role of personal values in business. A fundamental tenet of the whole of the business ethics literature is that ethics and values are as important in business as they are in other social arenas. There are, therefore, many studies which comment on the normative desirability of individuals bringing their personal values to bear on their work. For example, recognising the particularly critical nature of ethics in service provision, Hansen (1989) emphasised the importance of individuals bringing their own beliefs and values to their jobs. Most of the multivariate models of ethical decision making discussed in section 2.3.3 of this chapter incorporate personal values as an influence on ethical decision making although, as discussed in the previous section, there is a lack of definition between values and philosophical reasoning. They include Ferrell and Gresham (1985), Hunt and Vitell (1986), Bommer et al. (1989) and Ferrell et al. (1989). There are also a number of empirical studies which have investigated the influence of personal values in business. In the marketing literature, for instance, it is widely accepted that there is an inverse relationship between the value-related attribute, Machiavellianism, and ethical behaviour. This relationship is practically the only one which has been empirically verified by means of numerous studies (see Ford and Richardson, 1994, for a summary of the evidence). Other research has investigated the relative importance of specific values held by managers (Weber, 1991) rather than personal values as a whole, multidimensional concept. A small number of studies have, however, addressed the influence of multidimensional conceptions of personal values. Carlson and Kacmar's results (1997), discussed in the last section, support the view that personal values can predict ethical judgement in business situations and that they provide the ethical motivation behind action. McCabe et al.'s (1991) study of MBA and law school students also presented evidence to support the view that ethical judgement in business scenarios is influenced by personal values. They used the Rokeach Value Survey (RVS), to be discussed in detail in section 4 of chapter 6, to measure personal values and demonstrated that ethical/unethical choices were related to value contrasts within the personal values scale. Singhapakdi and Vitell (1993) measured personal values, using a similar multidimensional values scale to the RVS, and professional values and used them as explanatory variables in regressions with scenario ethical judgements as the dependent variables. They found that some personal values scale items were related to ethical judgement whereas others were not. Further, the significance of personal values was not particularly high compared to professional values. Singhapakdi and Vitell's suggested

explanations for this are first, that personal values may have an impact *through* professional values, or second, that personal values are too far removed from the ethical situations to have much impact. Similar arguments are raised by Brief et al. (1996) whose study looked at the effect of personal values and codes of conduct on fraudulent financial reporting. Explaining their results, which did not support the influence of either, they suggest that values are too abstract to act as predictors of a complex behaviour such as fraudulent reporting. An alternative explanation for the lack of statistical significance of both Brief et al.'s and Singhapakdi and Vitell's results may lie in the fact that they both looked for individual influential personal values e.g. comfortable life, family security. Brief et al. actually acknowledge that there is no strong theoretical basis for this approach (p. 185). Alternative value formulations such as overall strength of values or value contrasts (such as used by McCabe, 1991) may have yielded different results.

To summarise, the business literature lacks clarity about the role of personal values in the business context. Related to this, there is little empirical evidence on the subject. No doubt this is partly due to methodological and practical obstacles to research. The current study asserts that the shortcomings of the values literature is not likely to be indicative of the lack of importance of personal values in ethical decision making in business. Another possible reason for the paucity of studies, conceptual and empirical, is the complexity arising from the relationships between personal and other, contextual values such as organisational and professional. Two studies cited in the previous paragraphs, Singhapakdi et al. and Brief et al., have already served as an introduction to this issue which is addressed in the next two sections. Section 2.4.5 examines the direct influence of organisational values on decision making and then section 2.4.6 addresses the interaction between personal and organisational values.

#### **2.4.5. The influence of organisational values**

In addition to being affected by their personal values, executives' decisions are believed to be affected by the values of the organisation (Schmidt and Posner, 1982; Akaah and Lund, 1994). In the same way that personal values can direct attitudes and behaviour, organisational values dominate the way people think and behave in organisations. Liedtka (1989) says that organisational values dominate the selection of organisational goals and form the "givens" which frame the possibilities and alternatives in decision making. Organisational values therefore form an important part of the context or situation in which

ethical decision making occurs. It is generally agreed that situational variables have the potential to be a powerful influence on individuals' behaviour in organisations. Ford and Richardson (1994) review the numerous empirical studies of the antecedents of ethical decision making. They categorise the studies into groups such as peer group and top management influence, rewards and sanctions, codes of conduct, and specific organisational factors such as ethical climate and values, size, organisational level of the individual<sup>1</sup>. There are numerous other studies asserting the relationship between organisational factors and ethical decision making and behaviour (see Wyld and Jones, 1997, and Sinclair, 1993, for summaries). Furthermore, all the multivariate models of ethical decision making include situational variables such as corporate culture, significant others, professional environment, etc<sup>2</sup>. Trevino (1986), for example, includes normative structure as a variable which moderates the relationship between level of CMD and ethical behaviour. She defines normative structure as the moral aspect of corporate culture dealing with values, goals, purposes and beliefs. Thus in a culture with strong normative structure, Trevino hypothesises that there will be more agreement concerning what is appropriate/ethical and inappropriate/unethical behaviour than in a weaker normative environment. Ferrell et al.'s synthesis model (1989) also includes normative structure of corporate culture as a significant influence on the ethical decision making process.

The means by which organisational influences, including values, become important in ethical decision making has been the subject of much investigation in psychology and sociology. Resulting theory has been influential in the field of management. For instance, Skinner's (1953) reinforcement theory depicts individual behaviour as the result of manipulation of the organisational influences of reward and punishment, and Bandura's (1977) social learning theory focuses on the impact on behaviour of individuals observing and learning from other peoples' actions and their consequences. Sociologists have studied how individuals in different occupational groups are socialised into an occupational culture (e.g. Becker et al., 1961 - medical students; Coffey, 1993 - graduate accountants). Literature relevant to the occupational socialisation of new graduates and accountants will be reviewed in the next chapter. The point to note here is that organisational values can and do influence individuals' ethical behaviour. Furthermore, the extent to which they do so is likely to be related to the impact of the processes of occupational socialisation. Through the processes of

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1 See Table 2.2 for a summary of Ford and Richardson's (1994) findings.

2 See Table 2.3 for a summary of variables included in the models.

training and socialisation, individuals come to know and share their organisation's values (Trevino, 1986). Of the group behaviour of the graduate accountants studied in her research, Coffey (1994a, p. 38) concludes:

“the tacit acquisition of collective, collegial knowledge and values was an important aspect of these trainees' initiation into the occupational and organisational *habitus*.”

From the discussion above, it can be concluded in a general sense that organisational values, as one of a number of situational contingencies, can influence individual ethical behaviour. The next question to address concerns the type of organisational values which are supportive of ethical decision making. Ford and Richardson's (1994) review of the empirical literature concluded that ethical beliefs and decision behaviour had been positively linked to various situational factors including the existence and enforcement of codes of conduct, strong top management ethical beliefs and behaviour, and strongly ethical organisational climates or cultures. Akaah and Lund (1994) found that high scores, indicating high perceived importance to the organisation, in three categories of organisational values (service, productivity and leadership values) were correlated with ethical business attitudes of individuals. Taking a different approach, Singhapakdi and Vitell (1993) examine the influence of *individually-held* professional values of fully-socialised marketing professionals on ethical judgement. Professional values can be understood as a particular category of organisational values: They are “values related to professional conduct that are commonly shared by the members of a particular profession” (Singhapakdi and Vitell, 1993, p. 528). The professional values of marketers were found to be significant predictors of ethical judgement. There are few other studies which explicitly look at links between particular *organisational values* and ethical behaviour. However, there are a number of studies which have examined the impact of corporate culture and climate on ethical behaviour. As definitions of corporate culture typically involve shared meanings, beliefs and *values* (Deal and Kennedy, 1982), the following review of these studies might be able to contribute to the understanding of the types of values which support ethical decision making.

There is evidence of consensus in the business literature that there is some kind of relationship between culture and ethical decision making. There is little agreement beyond this, however, on the nature of this relationship. The literature is characterised by a relatively

small number of mainly conceptual studies taking different approaches to the subject. The most noteworthy of these are reviewed in this section to give a flavour of the issues.

The most popular view of corporate culture and ethics in the literature is that with the appropriate strategy, culture is a variable which can be “managed” in such a way as to improve standards of ethical behaviour in organisations. Culture is seen as something an organisation *has*, and therefore can influence. This has been called the “strong” approach to managing culture to improve ethics in organisations (Sinclair, 1993; Chen et al., 1997). According to an alternative, opposing conceptualisation of culture, the “subculture” approach (Sinclair, 1993) to managing culture to improve ethics denies that culture is a unitary variable that an organisational can influence. Rather, culture is something an organisation *is*. Under this view, it is unlikely that management is able to, or should attempt to use culture to serve their ends. The two approaches have different implications for the ways of managing ethics and for the role of personal and organisational values.

According to the “strong” culture approach, management can create a cohesive culture which upholds a common set of values which need to be shared by all employees. According to Sinclair (1993, p. 66) the strategy for achieving this “is well-established, but tirelessly reincarnated with slightly altered emphasis” (e.g. Peters and Waterman, 1982; Deal and Kennedy, 1982). It typically involves the articulation and promulgation of a corporate philosophy or mission resting on a stated set of values permeating the organisation. It therefore attempts to ensure ethical conduct by telling people the appropriate way to act and by reinforcing adherence to corporate values. Most often, it works through socialisation of organisational norms rather than explicit compulsion. Sims’ (1992) study is typical of a number of studies which assert that ethical behaviour can be “fixed” by attention to corporate culture. Taking rather a normative approach, Sims’ conceptual study is typical of many which explore the causes of unethical behaviour in organisations and suggest culture-related strategies with which to address the problem. In a discussion of the causes of unethical behaviour in organisations, Sims believes that in many organisations, behavioural norms exist which promote ethically questionable practices. He suggests that they prevail primarily because they are commonly accepted and rewarded from the “top down”. Such norms include lack of honesty and openness, doing “whatever it takes to get the job done” even if it means breaking or bending the rules, and “passing the buck” instead of taking responsibility. For organisations wanting to address the subject of ethical behaviour seriously, Sims

advocates a strategy which promotes what wider society might regard as commonplace virtues (honesty, rule-following, taking responsibility, co-operation). Citing a substantial body of research to support his case, he emphasises, however, that for such a strategy to be effective, it must start with top managers (e.g. Brenner and Molander, 1977; Hegarty and Sims, 1978, 1979; Posner and Schmidt, 1984; Worrell et al., 1985; Soutar et al., 1994), it must be formally supported e.g. by upholding codes of conduct<sup>1</sup> and that reward and appraisal systems must be modified to take account of ethical behaviour (Hegarty and Sims, 1978; Trevino, 1986).

A number of studies argue that the choice of values emphasised in the chosen types of “strong” culture can have different ethical ramifications. For instance, according to Barnett and Karson (1987), “a corporate culture that threatens the individuals obligation to self may minimise the effect of personal values such as honesty and candor” (p. 372). In other words, a particular culture which emphasises loyalty, membership and subjugation of the self to the organisation might have unseen ethical effects in terms of weakening the application of individuals’ personal values at work. This, according to Sinclair, is one of the main criticisms of the entire strong culture approach. Thus, while strong cultures engender commitment from organisational members, resulting conformity and lack of dissension can be harmful to the organisation’s ability to digest and respond to dissension, challenge and change (Waters, 1978; Fitzgerald, 1989) and can actually cause ethical problems (Murphy, 1989). In unambiguous terms, Sinclair concludes (1993, p. 71):

“While conformity need not exclude moral reflection, the essence of this (“strong”) view of organisational culture is that it removes the need to be reflective. Values and norms become so entrenched that self-inspection is unnecessary.”

In terms of the role of personal and organisational values, Sinclair thus implies that a strong organisational culture can require individuals to leave their personal values outside the organisational domain as they become replaced by organisational values (see also Silk and Vogel, 1976). This contention, though powerfully argued by Sinclair is by no means widely

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1 The effectiveness of codes of conduct or ethics in supporting ethical behaviour is the subject which has received a significant amount of attention in the business ethical literature. Whilst the case for the positive effects of such codes is reasonably strong, there are a significant and growing number of studies which question their effectiveness for various reasons e.g. Lacznik and Interrieden (1987) and Nwachukwu and Barnes (1997). This strand of literature is outside the scope of the present discussion, The effectiveness of codes of conduct in the accountancy profession is, however, dealt with in chapter 3.

accepted. In fact, it could be said that the “strong” approach to organisational culture still has the upper hand in the debate in the literature. Sinclair (1993, p. 68) explains this with reference to its “explanatory appeal” i.e. “cultural forces still seem to explain, better than anything else, why people in organisations behave, ethically and unethically, as they do.”

Thus there is a debate about the general ethical effects of adopting a strong cohesive culture. The literature is also unclear on whether specific types of culture might be more supportive of ethical decision making than others. Sims (1992) summarises some of the factors, essentially organisational goals, which can be emphasised in different culture types. These include personal self-interest, profitability, team interests, social responsibility, personal morality, and professional codes. The choice, he argues, can affect the whole ethical tone of the organisation. Wyld and Jones (1997) propose that the ethical work climate construct (Victor and Cullen, 1988) can provide a vehicle for investigating the complex linkage between specific organisational values and ethical decision making. They note that organisational cultural influence has been discussed in the literature as generally having an important role in ethical decision making (e.g. Trevino, 1986; Ferrell et al., 1989) but that there has been no concrete way of expressing it. They argue that all the organisational factors included in the multivariate models of ethical decision making e.g. organisational culture, significant others, corporate ethics policy, codes of ethics, etc., are encapsulated in the ethical work climate construct which Victor and Cullen defined as “the shared perceptions of what is ethically correct behavior and how ethical issues should be handled (Victor and Cullen, 1987, pp. 51-52). Ethical work climate was presented by Victor and Cullen as a three by three matrix (three types of moral philosophy - egoistic, utilitarian, principled, and three levels of analysis - individual, local, cosmopolitan). Subsequent empirical testing reduced the set of climate types to five (Victor and Cullen, 1988). Wyld and Jones propose a research programme which will raise and investigate a hypothesis for the combination of each climate type and each stage in the ethical decision making process. This research, they argue, would provide practical linkages between specific climate types and the decision making of individuals within them. They confirm, however, that there is currently no basis in the business ethics literature for specifying the direction of these relationships. To date, no significant empirical research along the lines suggested by Wyld and Jones has been published. Until it is, there remains no evidence to support the notion that ethical work climate, as conceptualised by Victor and Cullen, is differentially supportive of ethical behaviour.



The “subculture” approach to managing culture to improve ethics accepts that cultural concepts can explain behaviour in organisations. However, instead of relying on the establishment of a cohesive, universally accepted set of organisational values to influence behaviour, it focuses on understanding the differences in values held by different subgroups within the organisation (Sinclair, 1993). According to many cultural theorists, the influence of values and norms on behaviour derives from these subcultures (Martin and Siehl, 1983; Wilkins and Ouchi, 1983). Under this model, the task of managers with respect to culture is concerned with understanding ethical values present in individuals and subcultures and developing those which are consistent with organisational goals. The benefits of this type of approach, Sinclair argues, are that it avoids the well-established dangers of “groupthink” (Janis and Mann, 1977), it promotes diversity in team performance and can therefore enhance creativity (Belbin, 1981) and it can generate ethical discourse throughout the organisation. The dangers are, however, the risk of organisational anarchy and a “prison of pluralism” (Sinclair, 1993, p. 70). Further, there are many practical difficulties concerned with the problems of managing diversity, well-known in more traditional contexts (e.g. race, gender, etc.).

The purpose of the preceding discussion was to review the evidence contained in the organisational culture literature on which organisational values and what type of organisational culture is supportive of ethical decision making. To summarise then, the “strong” approach to managing corporate culture argues that individuals’ behaviour, including their ethical behaviour, can be moulded to conform to organisational values if a cohesive set of values is articulated by top management and promulgated within the organisation. There is a substantial body of empirical research to support the notion that individuals behaviour can be influenced by various aspects of corporate culture such as reinforcement mechanisms, and values of management. There is, however, no systematic empirical evidence supporting the notion that the enshrining of any particular set of values in a cohesive corporate culture is more or less likely to result in improved ethical behaviour. Indeed, empirical testing of this nature may not actually be practical or possible. Further, there is some evidence, albeit limited, to suggest that ethical opportunities may be lost by adopting an approach which encourages individuals not to refer to their own personal values as the main means by which to resolve ethical dilemmas. Conversely, the “subculture” approach to culture works by encouraging and challenging individuals to understand the

values they bring to the organisation. Under such a culture, the approach implies that individuals would be influenced to a lesser degree by organisational values and more by personal values than under the traditional organisational cultural model. This may indeed represent a new management paradigm. However, it faces many significant practical obstacles to implementation. No doubt related to this, there is no empirical research with which to assess its ethical effects.

#### **2.4.6. The relationship between personal and organisational values**

The two sections above have established that ethical judgement and behaviour are related to personal and organisational values. We have seen that organisational values can guide and direct individual ethical behaviour. A further relationship to consider is that between personal and organisational values. The theory of occupational socialisation, introduced above, posits that internalisation of previously external, organisational values is a key aspect of the socialisation process. The review of the organisational culture literature suggests that such internalisation of organisational values may be a result of specific attempts to manage culture in order to influence ethical behaviour. Whilst it may not be agreed whether this happens by socialisation or social learning or some other process, it is generally agreed that organisational values can have a major impact on personal values (Schmidt and Posner, 1982). In seeking to explain unethical and illegal practices in business, Baucus and Near (1991) argue that it is not the case that business people have a lower set of ethical standards than wider society, rather than they are subjected to potentially very powerful organisational influences which can change, or appear to change, the values even of individuals who initially have strong ethical standards. Several recent studies have presented empirical evidence to verify the relationship between personal and organisational values in differing business contexts. These are reviewed next.

First, Akaah and Lund's (1994) study of marketing professionals investigated the relationships between ethical behaviour of marketing professionals, their personal values and organisational values. They used structural equation modelling to test three hypotheses. The first was that personal values affect ethical behaviour, the second that three categories of organisational values, relating to service, productivity and leadership values, affect ethical behaviour, and the third that personal and organisational values are interrelated. Akaah and Lund's data supported the second and third hypotheses but not the first. That is, the

relationship between organisational values and “ethical behaviour” was found to be statistically significant and personal and organisational values were interrelated. Personal values, however, had an insignificant impact on ethical behaviour. The authors suggest that the insignificance of personal values may have stemmed from the significance of the relationship between personal and organisational values or that personal values may be sacrificed by marketing professionals<sup>1</sup> for career advancement (Lincoln et al., 1982). Two further interpretations are first, that a culture with strong organisational values demands a “surrender” of individual values to the organisation (Silk and Vogel, 1976), as discussed in the previous section, or second, that the sample was somehow ethically biased to include individuals with relatively low ethical standards. This study, therefore, supports the relationship between the different types of values, but does not address the question of direction of influence. A study by Jones and Hildebeitel (1995), on the other hand, supports the notion that organisational approaches to ethical issues can have an influence on the way individuals think about those issues. Specifically, the study concludes that organisational support for ethics can impact on the moral reasoning levels of accountants. This study will be reviewed in more detail in chapter 3. In summary, the idea that organisational values and approaches to ethical issues can influence an individual’s values is intuitively, theoretically and empirically plausible and, in particular, is underscored by the socialisation literature’s focus on the process of individual assimilation of organisational values.

It is well-documented, however, that there is significant potential for conflict to exist between personal and organisational values, for example when the individual is obliged to carry out the organisation’s official values in his/her role as agent of the organisation (Kilby, 1993). Waters and Bird (1987) have termed this “moral stress”, which they describe as incongruence between organisational and individual perspectives on ethical issues. Two recent studies illustrate the type of research into conflicting values which is currently being carried out. The first, by Mason and Mudrack (1997), investigates the issue of whether individuals with higher moral reasoning levels experience conflicting values more than lower moral reasoners. The idea behind this study is that increasing individual sophistication in thinking about the role of business in society implies different ways in which managers may co-operate with other people (shareholders, stakeholders and society). The least sophisticated approach is the traditional view i.e. Friedman, followed by an enlightened self-interest approach to social responsibility

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1 In this study, the subjects were all ‘mature’ professionals, fully socialised into their work environment.

i.e. instrumental ethics, and finally, the most sophisticated approach based on notions of non-instrumental ethics i.e. corporate social responsibility is an end in itself. These approaches are said to parallel Kohlberg's stages of moral development. Mason and Mudrack therefore test and find support for the existence of a relationship between DIT scores and a scale measuring agreement that organisational interests supersede those of the wider society for a student sample. The conclusion of the study is that higher moral reasoners will experience greater conflict at work between their own personal principles and those demanded by an organisation than lower moral reasoners. Two possible implications of this are discussed. The first is ethical self-selection in organisations through exit of high moral reasoners. This notion was also discussed by Victor and Cullen (1988) who speculated that conflict may lead to increased job turnover, and decreased satisfaction and organisational commitment. The second implication of Mason and Mudrack's study concerns the influence of situational factors on the application of moral reasoning skills in organisations. To avoid conflict in the workplace, the authors suggest that individuals might choose to operate at a lower level of moral reasoning. Other studies, such as Weber (1990a) and Trevino (1992), support the idea that lower moral reasoning is used in business than in non-business contexts.

A second study by Liedtka (1989) also examines the relationship between personal and organisational values. It is concerned specifically with the role of value congruence between individuals and organisations. Liedtka develops a value congruence model depicted by a two by two matrix, shown in Figure 2.2, which explores the interaction between the two value systems. It is used to generate hypotheses concerning the different types of value conflict. According to Liedtka, sets of values for both the individual and the organisation can be either consonant, that is, internally consistent and in internal equilibrium, or contending i.e. in internal disequilibrium. For the organisation, consonant values would generate a "strong" form of corporate culture. If the organisation itself is experiencing value conflicts, there will be no unified value system to act as a reference to guide individuals in decision making. Similarly, individuals' personal values can be consonant or contending. Liedtka says that in the absence of conflicts, either within or between individuals and the organisation, individuals accept organisational values and use predetermined scripts to guide decision making and behaviour. Value conflict of any kind, however, generates unscripted cognition which is dependent on the nature of the conflict. In quadrants I and II in Figure 2.2, the individual is in internal disequilibrium, holding personal values which conflict with each other. In these circumstances, Liedtka says that individuals may look to referent others - either corporate culture or guidelines

in quadrant I, or peer, or other, group influence in quadrant II. Quadrant III can generate two possible situations. First, internally consistent individual values can be in agreement with cons-

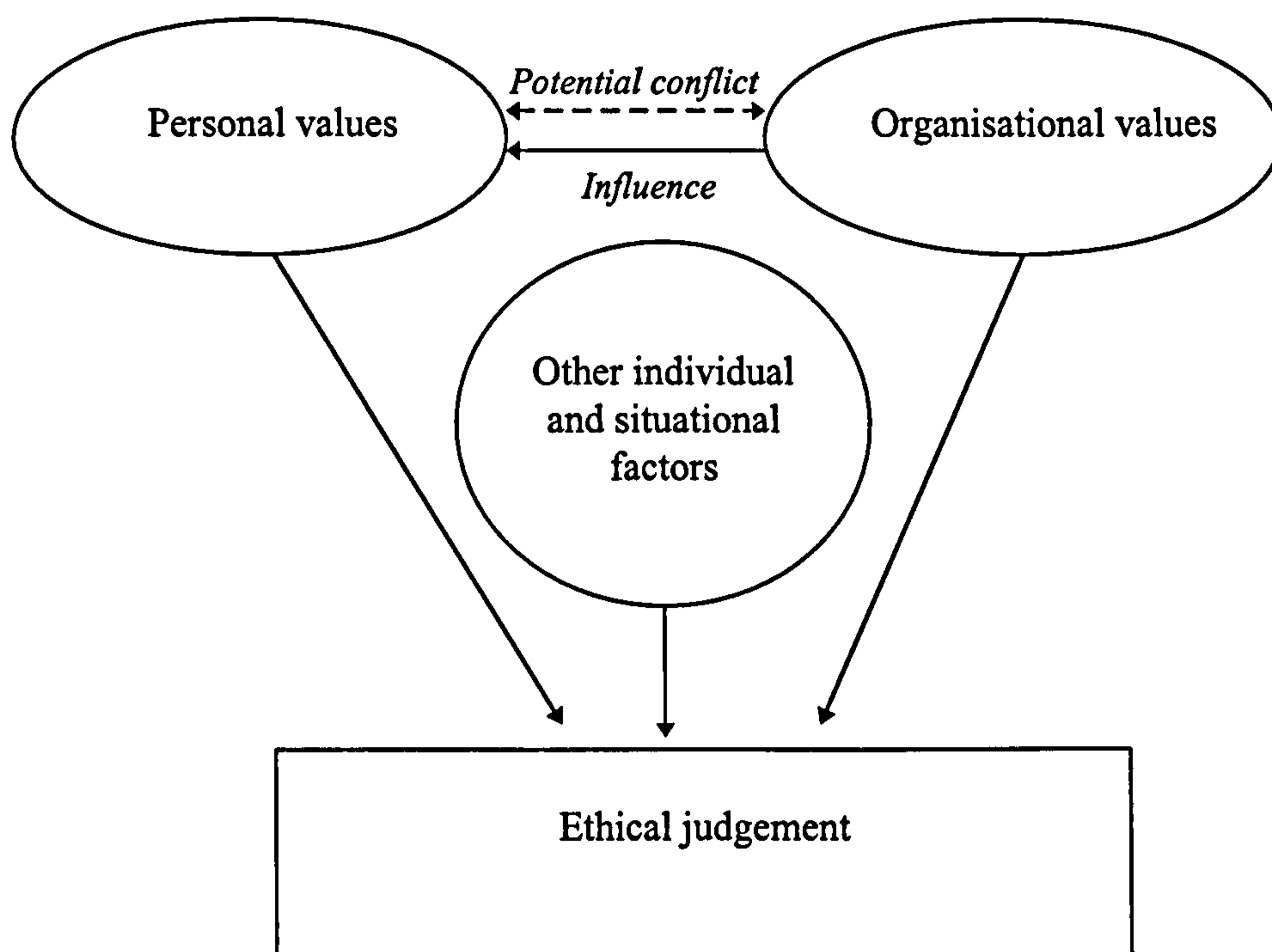
*Figure 2.2: Liedtka's value congruence model*

		Organisational values	
		Consonant values	Contending values
Individual values	Contending values	I	II
	Consonant values	III	IV

onant organisational values, and one would expect to find a balanced organisation and little unscripted cognition as a result. The second possibility is internally consistent individual values in conflict with consonant organisational values. In this case, Liedtka suggests that the mechanisms of voice and exit (Hirshman, 1970) might come into operation. In quadrant IV, finally, individually-held values would guide decision making in the face of “corporate mixed messages”. Liedtka’s study serves to underline the complexity of values research. Her interview data finds the nature of value conflict to be “influential, but not linked to a common behavioural response” (p. 812). It illustrates the point made at the beginning of the discussion of values in section 2.4.2. that values form part of a complex set of relationships involving attitudes, temperament, wants, motives, opportunities, rewards, punishments, and the influence of significant others. By way of a summary of the relationships discussed above, Figure 2.3 gives a simplified interpretation of the theoretical interrelationships between values and ethical judgement

In addition to potential conflict between personal and organisational values, in certain contexts, there is also potential for conflict between different organisational values. In the accounting profession, there are various layers e.g. office, firm, profession (Schlacter, 1990), whose values may not all be the same but who nevertheless demand the allegiance of the individual accountant. Interesting issues arise as to which set of organisational values takes precedence. Chapter 3 takes up this theme by examining the potential sources of ethical conflict specific to the accounting profession.

*Figure 2.3 Depiction of theoretical interrelationships between values and judgement*



## **2.5. Summary and conclusion**

This chapter has introduced readers to the literature on ethical decision making. It has followed the development of the field from the initial interest in univariate antecedents of ethical judgement and behaviour through to the development and testing of theoretical multivariate frameworks of ethical decision making. Finally, the chapter focused on the role of values in ethical decision making, including a comparison of values with other drivers of ethical judgement discussed in the literature and a consideration of the relationship between organisational values and behaviour.

The literature review revealed a number of key similarities and differences among the theoretical models of ethical decision making. The models are similar in that they all deal with decision making in a business context, either marketing, accounting or general business. Each model identifies behaviour as the outcome of the decision making process, and each highlights the importance of background and situational factors as well as individual factors in decision making. Despite the similarities, there are fundamental differences among the models. The most fundamental of these include differences in the extent to which the complexity of ethical decision making process is explored, in the focus on different groups of explanatory variables,

and in the use of different drivers of ethical judgement. Other less fundamental differences include the use of feedback loops and the specification of different situational variables. The exploration of complexity centres on a model's ability to open up "the black box" and explain the details of the individual decision making process. Models such as Hunt and Vitell (1986), Ferrell et al. (1989), and Jones (1991) use different stages to depict different aspects of the decision making process whereas models such as Trevino (1986), Ferrell and Gresham (1985) and Bommer et al. (1987) present ethical decision making as a single-stage process, albeit influenced by a number of other factors, leading to behaviour. The contribution of models such as Trevino and Ferrell and Gresham lie in the thoroughness of their exploration of the various individual and situational factors. Trevino, for example, specifically identifies individual moderators such as ego strength, locus of control and field dependence and explores their influence on the ethical decision making process. The models have also differed in respect of how they have operationalised the actual process of ethical judgement. Trevino's model relies solely on CMD, whereas other models employ philosophical reasoning and values as drivers of the judgement process.

Each of the models has the potential to contribute to a greater understanding of ethical decision making in business and, as the literature has matured, it could be argued that on some of the broad issues, a kind of consensus is being reached. One such area of consensus is the notion that a complete ethical decision making model needs to follow the basic decision making paradigm of search, evaluation, choice and outcome. Two of the most important synthesis models (Ferrell et al., 1989, and Jones, 1991) agree that this is best achieved by employing stages approximating to Rest's four stage approach (recognition, moral judgement, determination of intentions and action)<sup>1</sup>. Another area of consensus appears to be that various individual and situational variables can influence all of these stages e.g. different aspects of organisational culture can impact upon awareness, judgement, determination and action.

Although the past 15 years has seen major theoretical development in the understanding of ethical decision making, empirical verification of many of its themes is outstanding. The lack of empirical research is largely associated with the difficulties of operationalisation of the model components and the general methodological difficulties associated with business ethics

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<sup>1</sup> Jones uses the Rest framework explicitly while Ferrell et al. do not reference Rest's work (which may not have been published at the time of writing), but nevertheless include the same stages. The only major difference is the use of five stages by dividing judgement into cognitions, based on CMD, and moral evaluations, based on moral philosophy.

research. Research is needed on every stage of the decision making process. Further, there remain unresolved theoretical questions and conflicts between the models. They include issues relating to context specificity, for example, whether the accountancy profession needs a distinct model of ethical decision making, whether ethical decision making differs between national cultures, and what is the nature of the relationship between work and non-work ethical decision making. Another major area of theoretical conflict concerns the role of, and relationship between, different drivers of ethical judgement. More studies in the vein of Carlson and Kacmar's (1997) are needed, in addition to studies investigating the relatively underexplored area of values. Values have been shown to be an important influence on ethical decision making. The precise nature, however, of the relationships between values, the formation of attitudes and behaviour/decision making are as yet unclear. Also underexplored is the relationship between personal and organisational values. The extant research does, however, provide sufficient theoretical guidance to allow the generation of empirically testable hypotheses. Thus the values theme will be revisited in chapter 4 in the context of the generation of the model for testing in the current study.



## **Chapter 3: Ethics and accountants**

### **3.1 Introduction**

Chapter 2 provided an overview of the literature on ethical decision making, the main subject considered in this thesis. The current chapter discusses the particular context, and related literature, in which ethical decision making is to be investigated. This context is the training of graduates in the accountancy profession. The longitudinal nature of this research means that dynamic as well as cross-sectional issues in ethical decision making are of interest. Literature relevant to the study therefore includes studies which investigate how the ethical decision making abilities of accountants change over time in response to training and other situational factors.

Various levels of the research context are addressed. First, in section 3.2, the nature of the accountancy profession is considered. Common features to all professions are discussed briefly, before literature examining the accountancy profession in particular is reviewed. This review will draw out the situational factors which are relevant to a study of ethics, and it will highlight ethical issues and potential sources of ethical conflict in the accountancy profession. The role of codes of practice in regulating ethical behaviour will also be considered. The second level of context considered in this chapter is the individual accountant. Section 3.3 will review specific research on the ethical level and abilities of accountants, including a number of studies which have suggested a possible deficiency in the ethical development of accounting students and practitioners. The third and final level of context is that of graduate chartered accountancy training. In section 3.4, the UK training process will be described and its ethical impact considered against the background of literature on the efficacy of ethical education and training interventions. Consideration will also be given to the literature on the role and effects of the socialisation of graduates into the profession before conclusions are drawn in section 3.5.

### **3.2 The accountancy profession**

#### **3.2.1 Introduction**

This section considers the aspects of the accountancy profession which are relevant to a study of ethics. Section 3.2.2 provides a very brief introduction to the sociology of professions. This includes a look at features common to all professions which include a stated concern for

public interest issues and a code of ethical behaviour for members. Section 3.2.3 focuses on ethical issues in the accountancy profession. It discusses why ethics is important in the profession, the features of the profession which have ethical implications, and the nature of ethical problems or conflicts which can arise. Finally, section 3.2.4 addresses the question of whether codes of conduct are effective in solving ethical problems and preventing unethical behaviour in accounting.

### **3.2.2 A brief sociological view of the accountancy profession**

Like other professions, the accountancy profession has been the subject of academic sociological inquiry (e.g. Armstrong, 1987; Burchell et al, 1980; Hoskin and Macve, 1986; Macdonald, 1995; Wilmott, 1986). It is generally accepted in the sociology literature that the accounting profession shares a set of characteristics with other professions. These include a theoretical body of knowledge, a set of values based on the concept of public service, the certification of expertise through examination procedures after a period of education and training, and a code of ethics. The sociological analysis of these characteristics, however, depends on one's view of professionalism. There are two competing sociological models of the professions (Johnson, 1972; Lindblom and Ruland, 1997). They represent extreme positions between which there lies a continuum of possible points of view. The first is the functionalist model in which professions are seen as "a positive force in social development, standing against the excesses of both laissez-faire individualism and state collectivism" (Johnson, 1972, p.12). According to the functionalist model, professions exist to meet genuine human need by utilising specialist knowledge gained by ability, determination and training. The second model is the conflict model according to which professions are "harmful monopolistic oligarchies whose rational control of technology would lead to some form of meritocracy" (Johnson, 1972, p.12). According to this view, professional expertise is deliberately used and may be manipulated by professional bodies in order to develop and maintain monopoly power which is used to secure social control and associated benefits for the members (Johnson, 1972; Lee, 1989; Macdonald, 1995). The monopoly is maintained by controlling the entry to the profession by various barriers such as arbitrary education and training requirements. In recent years, the conflict model has increasingly been applied to the UK accounting profession (Richardson, 1988; Lee 1989; Puxty et al., 1994).

The two conflicting models have different implications at both the institutional and individual levels. At the institutional level, for example, there is a debate about the nature and boundaries of professional knowledge. According to the conflict model, the scope of professional knowledge is determined after, and in response to, the establishment of social

control. According to Power (1991, p. 335) “the monopolization of competence is established well in advance of a detailed specification of the substance of expertise”. According to some critics, the subsequent characterisation of accounting expertise as primarily concerned with technical measurement may have been self-serving for the profession in creating a particular version of reality between accounting and society, but is unrepresentative of reality (Hines, 1988; Power, 1991). An alternative model of professional knowledge suggested by Burchell et al. (1980) is more consistent with a functionalist view of the profession. According to them, there is a complex and reciprocal relationship between the institutional setting of a profession and its knowledge and expertise:

“Formalized accounting knowledge can be seen as a condition for the possibility of the professionalization of accounting, and that professionalization in turn changes the conditions underlying the elaboration and development of accounting knowledge.”  
(Burchell et al., 1980, p. 8 footnote)

Some of these ideas will be explored further in the context of discussion of accountancy training and socialisation in section 3.4. Further consideration of the institutional-level sociological critique of professions is largely outside the scope of the current study. At the individual level, however, the functionalist and conflict models will be used in section 3.2.4 to shed light on the debate about the effectiveness of professional codes of conduct in accountancy.

### **3.2.3 Ethical issues in the accountancy profession**

As noted above, professions are characterised, amongst other things, by codes of ethics. These represent an attempt to guard against unethical practice. Integrity, independence and objectivity have traditionally been seen as the cornerstones of accountancy’s claim to professional status and have a key role to play in safeguarding against abuse of a specialist body of knowledge which is intended to be used in the public interest. Further, high standards of ethics in the accountancy profession have an essential role to play in ensuring that audit is an effective tool of corporate governance (Bruce, 1996). If high ethical standards are not maintained, there may be a loss of public confidence in the attest function of the audit. It has been argued by some that the possibility of resultant government intervention could cause great harm to the accounting profession (Ponemon and Gabhart, 1993). At the time of writing, the debate about the accountability of the UK profession and the appropriateness of self-regulation is receiving a substantial amount of popular attention. The profession has received harsh criticism of its ability and willingness to regulate itself

(Mitchell et al., 1994; Sikka et al. 1989). The most extreme and outspoken of these critics claim that the profession's ethical statements and disciplinary procedures do not protect independence and objectivity, rather that they act as a smokescreen to protect the value of accounting labour (Mitchell et al., 1994). While it is not the purpose of this thesis to debate the accountability issue, the normative assumption guiding the choice of research questions, outlined in chapter 1, is that high standards of ethical behaviour are essential in the accountancy profession. It is therefore important to consider the reasons why some of the criticisms have arisen. The rest of this section considers first, the features of the accounting profession which have implications for the ethical behaviour of members, and second, the nature of ethical problems faced by members of the profession.

#### *Features of the profession with implications for ethical behaviour*

Several commentators have discussed the negative sanction environment present in public accounting (Schlacter, 1990; Gibbins, 1984) in which managers are quick to criticize but slow to compliment and reward. Schlacter (1990) discusses the effect of the negative sanction environment on attitudes towards professional ethics. Individuals come to expect that any disregard for ethical standards could severely jeopardize career prospects and could carry the threat of expulsion (Gibson and Frakes, 1997), whereas a lifetime of integrity might have little impact upon career progression i.e. responses to positive and negative behaviour are asymmetric in nature. This reflects the notion that while personal integrity is important in the professional context, it does not create value by itself (Westra, 1986). Thus, the competitive nature of the market for audit and other services means that individuals with strong "practice development" skills are likely to be more highly valued than those with a reputation for principled ethical behaviour - staff development and evaluation procedures are likely to reflect these priorities (McNair, 1991; Schlachter, 1990). The expectation of ethical conduct in the profession also means that the ethical quality of professional services cannot be promoted by individual firms. The significance of these considerations is that although high standards of ethical conduct are expected of individuals, and on a surface level, accountants profess the importance of codes of conduct (Cooper and Frank, 1997; David et al., 1994), matters relating to ethics in fact tend to be de-emphasised in the accountancy profession.

Despite the apparent lack of emphasis on ethics, there are relatively few studies documenting the existence of unethical behaviour in the accountancy profession. They include investigation of dysfunctional audit behaviour such as premature audit sign-off and underreporting of time (e.g. Kelley and Margheim, 1990; Margheim and Pany, 1986; Willett and Page, 1993; Reckers et al., 1997). As noted by Gibson and Frakes (1997), however, these studies have tended to suffer from two major weaknesses. First, they tend to lack the guidance of ethical theory or

models of ethical behaviour. Second, they have not adequately tackled the unwillingness of accountants to present themselves in a bad light resulting from the extreme penalties attached to unethical behaviour in the profession. Gibson and Frakes (1997) graphically illustrate the social desirability bias present in ethical decision making research with accountants by comparing data generated from the randomised response technique to direct self-report responses. They found clear differences between the two types of response and warn researchers against ignoring the issue of social desirability bias in accounting research<sup>1</sup>. On the subject of the existence of unethical behaviour in the accountancy profession, Gibson and Frakes conclude that “the pressure that exists to keep a client may, at times, lead CPAs to justify actions which may be in harmony with the letter, but not the spirit of the Code of Professional Conduct” (1997, p. 170). This observation suggests that unethical behaviour in the accountancy profession may not be a matter of a small number of dysfunctional individuals breaking the rules, rather that there may be ethical conflicts inherent the practice of accounting which many accountants find difficult to resolve. These are considered next.

#### *The nature of ethical problems in accountancy*

In chapter 2, the notion of ethical conflicts between individual and organisational values (Liedtka, 1989) was introduced. It was also noted that ethical dilemmas arising from conflict between *different organisational values* added another dimension to ethical decision making in the accountancy context. According to Gaa (1992), accountants have to consider potentially conflicting norms and rules generated from role-defined norms of behaviour, employer-determined *modus operandi*, and the profession-determined code of conduct. There is actually a growing body of literature (e.g. Finn et al, 1988; Brooks, 1989; Gunz and McCutcheon, 1991; Ponemon and Gabhart, 1993; Nixon, 1994; Tsui and Gul, 1996) which discusses the ways in which various types of conflicts can harm auditors’ independence. Ponemon and Gabhart (1993), however, have provided a particularly useful framework for conceptualising and appreciating the various sources of ethical conflict. They identify four constituent groups between and within which conflicts can result from differing objectives. These groups are first, the client organisation and its personnel, second, the accounting firm - its personnel and hierarchy, third, the accountancy profession and its professional bodies and fourth, society as a whole.

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<sup>1</sup> In this thesis, it is discussed in chapter 6 (section 6.3).

The first of Ponemon and Gabhart's categories, client-centred conflicts, caused by the economic needs of accounting firms conflicting with responsibility to the profession and society, has received the most attention from accounting scholars. Many agree with Ponemon and Gabhart that ethical problems are inherent in the accounting profession because of the conflicts arising from having to serve two masters, the client and the public (Lindblom and Ruland, 1997; Ponemon and Gabhart, 1993; Shaub et al., 1993; Westra, 1986). Ponemon and Gabhart illustrate what Power (1995) calls the essential tension in the profession between truth, in the sense of 'truth and fairness', and the search for profit by accountancy as a business - between public and private interest. This tension has also been described in terms of a conflict between cost and quality. Professional responsibility demands quality while the commerciality of modern firms operating in a competitive client-driven market, requires increased margins and reduced costs. In an interview-based study, McNair (1991) argued that because this conflict is never discussed openly in audit firms, individual audit staff members develop an attitude of compromise which translates into a sense of ethical ambivalence. The arrangements by which auditors are paid fees by clients for an "independent" opinion are at the heart of this conflict. They can cause a real, or at least a perception of a conflict of interest. Client-centred conflicts have arguably become more difficult to avoid in recent years as developments in the UK economy have led to increased levels of competition in the profession. As a result of the general recession in the UK in the mid to late 80's, the accounting profession has been under pressure to accept clients' demands for more competitive tendering and the resultant downward pressure on fees. This increase in competition has brought about a climate in which there are heightened pressures on firms to maintain and develop their existing client bases by means of cross-selling which provides revenue-generating opportunities. The scope for conflicts of interest under these circumstances, between different departments of the same accounting firm for example, has grown. The increase in the competitive climate in the market for "professional services" has manifested itself in other 'unprofessional' practices such as 'low-balling' i.e. very low competitive tendering which often involves undercutting rivals.

The accounting firm itself is the second site of potential ethical conflict according to Ponemon and Gabhart (1993). The pressure from audit seniors for juniors to underreport hours spent on a client's work in order to appear to meet the constraints of the job budget (Dirsmith and Covaleski, 1985; McNair, 1991) is an example of how conflict between individuals or groups within a firm can lead to unethical practice. Also within this category

are conflicts between individuals' beliefs and organisational requirements which can lead to "moral stress" for the individuals concerned, as discussed in section 2.4.6. The third of Ponemon and Gabhart's sources of ethical conflict is the accounting profession. Here, an individual practitioner may experience a conflict if his/her personal beliefs lead him/her to disagree with the professional rules. For example, a partner's personal beliefs that qualification of an audit report for going concern worries can become a "self-fulfilling prophecy" and speed the decline of an organisation may cause him/her to doubt whether the professionally correct qualified opinion is in fact the best course of action. Nixon's (1994) study examines the nature of this type of personal/professional moral conflict from an ethical theory perspective. He concludes that the difficulty in resolving such conflicts is due in part to individuals setting aside their personal values and judging the situation only within a business context. Whilst agreeing with Nixon that it is important that ethical dilemmas are actually resolved and that personal values can help in this process, it does not alter the fact that, in some cases, the result of using personal values may be that conflict *remains* in the form of an individual accountant disagreeing with what is professionally acceptable. Nixon offers no guidance for such situations. The final of Ponemon and Gabhart's sources of ethical conflict is society as a whole. It arises in relation to professional accountants' obligation to society which, as discussed above, is said to be a defining feature of a profession. The obligation of an accountant to serve "the public interest" may, at times, conflict with other obligations at the firm or professional level. This type of conflict can range from issues such as disagreeing with an accepted accounting treatment because it does not present a fair picture to society, to general concerns that commercial pressures can harm standards of work and jeopardise the public interest:

"The changing tides of public accounting may mean that the society-serving aspects of the profession will cease to be important, and will be substituted by an ever-increasing need for income and market share. For those concerned about the quality of the profession, this can cause extreme pressure. To make matters even worse, negative economic trends in the profession today may force many practitioners to choose between ethical responsibilities to the general public and loyalty to the public accounting firm so that it can continue as a viable economic entity." (Ponemon and Gabhart, 1993, p. 24)

It should be clear by now that the ethical problems faced by the accounting profession are complex and are not easily resolved. The next section examines the role and effectiveness of codes of ethical behaviour in accountancy in dealing with these difficult ethical conflicts.

### 3.2.4 Ethical codes of practice

In chapter 2, the influence of organisational values on ethical decision making was discussed. Many scholars agree that organisational values are a powerful force in explaining organisational behaviour. There is a debate, however, about the effectiveness of making these values and norms explicit, through ethical codes or codes of conduct, as opposed to leaving them implicit and unspoken. The group which believes that codes are unnecessary perceive organisational values to need no articulation because they are the “common sense” of the organisation (Berger and Luckman, 1967; Barney, 1986). The majority of scholars, however, favour the formalisation of organisational values because it facilitates job clarity (Ferrell and Weaver, 1978; Morris and Steers, 1980) and it is necessary to influence the ethical behaviour of individuals (Hegarty and Sims, 1979; Hunt et al., 1989). The mere existence of ethical codes is not sufficient to change ethical behaviour. Various empirical studies have shown that for codes to be effective, they must be enforced by top management (Brooks, 1989; Laczniak and Murphy, 1985; Singhapakdi and Vitell, 1990). Against this general background of support for the efficacy of enforced ethical codes, however, a number of empirical studies have sounded a note of caution. Laczniak and Inderrieden’s (1987) in-basket experimental study with MBA students produced a rather disturbing result in that codes of ethics were effective when combined with enforcement, as expected, but only when the behaviour was illegal as opposed to merely unethical. Brief et al. (1996) examine the effect of organisational codes of conduct on whether managers misrepresented financial reports. They found that neither the existence nor the specificity of codes reduced the likelihood of fraudulent financial reporting. Although reinforcement of codes was not examined by their study, Brief et al conclude that even if codes are coupled with control mechanisms, they may still not provide sufficient deterrent to fraudulent financial reporting. Nwachukwu and Vitell, Jr.’s (1997) study of marketing practitioners provided evidence to support Brief et al.’s conclusion - they found that neither existence *nor* enforcement of ethical codes made a significant difference to the identification of morally dubious advertisements except in a small number of cases where the existence of ethical codes made it *less* likely that advertisements would be perceived as unethical. In explanation, Nwachukwu and Vitell, Jr. suggest that individual moral responsibility may be reduced in certain circumstances by the presence of codes:



“Specifically, the findings suggest that depending upon the particular situation, organisational culture and ethics may mitigate individual personal moral convictions about right and wrong” (Nwachukwu and Vitell, Jr., 1997, p. 766).

They conclude that organisations should establish and enforce codes, but that they should also emphasise the importance of individuals employing their own personal moral standards in work situations. Nwachukwu and Vitell, Jr.’s results resonate with the normative perspective offered by studies such as Nixon’s (1994), discussed above, and with the criticisms of the “strong” approach to corporate culture discussed in section 2.4.5 (Barnett and Karson, 1987; Sinclair, 1993).

In the professions and accounting literatures, there is far less of a debate about whether to formalise organisational values because it is widely accepted, as discussed in section 3.2.2, that ethical codes are a feature of professions. The fact that they exist does not, however, mean that there is scholarly agreement about their role or their effectiveness. Lindblom and Ruland (1997, p. 575) identify four functions or purposes of professional codes as follows:

1. Provide a moral foundation for the profession.
2. Serve as a basis for the self-policing of the profession.
3. Promote the self-interest of the profession.
4. Serve as a public relations tool.

Views differ on which are the actual purposes depending on which of the competing sociological models of professionalism is adopted. Thus the first two purposes are consistent with the functionalist model of professions. According to this position, the code provides moral foundations by establishing expectations for professional and ethical behaviour to protect the public interest. This is the view taken by Ponemon and Gabhart (1993) who include codes as one of a series of factors which they say can mitigate against unethical behaviour in the profession by providing “useful benchmarks” of how one ought to behave in a variety of ethical situations commonly encountered in public practice. As the functionalist model does not preclude self-interested behaviour on the part of professionals (Parsons, 1954), self-policing is necessary to deal with situations where individuals are tempted to behave in a way which does not accord with professional expectations. Under the functionalist model, therefore, codes provide the foundation for self-regulation. According to the conflict model, the purposes of professional codes are understood very differently. Codes can promote the profession’s self-interest by enshrining and legitimising the methods

by which social control is exercised, e.g. bans on advertising and limitations on pricing and competition. According to Hauptman and Hill (1991, p. 38):

“Professionals can be uncaring, socially irresponsible, untrustworthy, self-promoting, greedy and dishonest and then defend themselves by working the unacceptable or unethical behavior patterns into their professional codes as ostensibly positive necessities”.

The fourth possible purpose for professional codes also fits with a conflict view of professions: Codes are used as public relations tools to foster a positive image with the public as a means to extend members' benefits such as social status, financial rewards, etc. In an analysis of the AICPA Code, Lindblom and Ruland (1997) find semantic defects in the provisions of the Code which they say result in different interpretations to different readers (i.e. public and professionals). They conclude that that AICPA Code is most consistent with the conflict model of professionalism. There is clearly scope for this type of analysis to be applied to the UK professional accountancy codes.

Although they do not use sociological analysis, two other recent studies have critically appraised the provisions of ethical codes in accounting. First, Brooks' (1989) study examined the Canadian accountancy profession's code of conduct. Brooks concludes that it is deficient in a number of respects. In particular, he highlights the lack of guidance the code gives on where accountants owe their ultimate duty - the public, client, employer, profession or the accountant him/herself. This prioritisation of interests is also found lacking in the UK profession's ethical guidance, and is particularly worrying given that, as discussed in section 3.2.3, these conflicts represent the fundamental ethical problems inherent in accountancy practice. Brooks argues that although current ethical guidance fails to state priorities explicitly, employers' tendency to focus on confidentiality requirements can lead to the emphasis of a client-focused approach to professional ethics (Epstein and Spaulding, 1993; Lindblom and Ruland, 1997) which could potentially suppress flows of information to the public. He therefore states that clarification of priorities is “necessary to avoid confusion and possible degradation of the profession” (Brooks, 1989, p. 329), and suggests that modification of the confidentiality rules to allow and enhance “confidential consultation” is a possible solution. Second, Collins and Schultz (1995) argue that the failure of the AICPA Code to resolve a number of issues such as client confidentiality and whistleblowing, and auditor independence, may jeopardise the public good.

Other literature addressing the subject of professional codes have mainly been US-based, empirical studies. These have demonstrated varying degrees of accountants' adherence to professional codes of ethics, mainly focusing on CPA adherence to the American Institute of Certified Public Accountants' (AICPA) Code of Conduct (e.g. Armstrong, 1984; Loeb, 1971). The evidence from this group of studies is inconclusive. Ziegenfuss and Singhapakdi (1994), for example, compare the relative influence of internal auditors' code of ethics provisions, individual moral philosophies (idealistic vs. relativistic tendency) and firms' ethical values on internal auditors' perceptions of ethical scenarios. In multiple regression analysis, agreement with the code of ethics positively influenced the perceptions of the ethical scenarios, whereas the influence of firms' ethical values and personal moral philosophies was not significant. Fulmer and Cargile (1987) compare accounting majors to other business majors to see whether exposure to the AICPA Code of Conduct at college makes them more or less likely to view business practices in ethical terms than other business majors. Although the results do suggest limited differences between the different major types, the question of whether this is attributable to exposure to the Code or to other factors, e.g. ethical self-selection of accounting majors, is not explored. A similar research question is addressed by McCarthy (1997) who looked at whether the level of consensus with AICPA Code of Conduct-defined behaviour changes after exposure to the Code in college accounting courses. Starting and senior accounting majors were compared. It was found that consensus with code-defined behaviour was not significantly improved. According to McCarthy, the problem is not necessarily with the Code itself, but with the education process which introduces it to students. She concluded that her study has "highlighted a glaring deficiency in accountants' professional education" (p. 1472). The role of education and training is a theme which will be pursued in section 3.4.

Ward et al. (1993, p. 602) express a widely-held view that professional codes of ethics or conduct are "a vehicle to assure the public, clients, and colleagues that members of the profession are competent, that they have integrity and that the profession intends to maintain and enforce high standards." In order for such codes to continue to assure the public, etc., they must be, and be seen to be, effective in terms of preventing unethical behaviour and helping accountants to resolve moral conflicts in professional practice. Even if one accepts this essentially functionalist analysis, however, codes can never be more than a partial solution to the problem of unethical behaviour as it is individuals who decide how they are going to act in any given circumstances (Cooper and Frank, 1997; Ward et al., 1993) - codes can only provide emphasis and guidance. Further, their effectiveness may be limited if they are inadequately framed such that they do not help accountants to resolve commonly-encountered ethical conflicts. If they are inadequately framed as suggested, amongst others,

by Brooks (1989) and Lindblom and Ruland (1997), literature reviewed in this section suggests that codes of conduct may even be counterproductive by generating a rule-following approach to ethical issues which suppresses the effect of personal values (Brief et al., 1996; Nixon, 1994; Nwachukwu and Vitell, Jr., 1997; Shaub et al. 1993) and causes the abdication of individual moral responsibility in ethical decision making.

### 3.3 Accountants' ethical abilities

One of the conclusions of section 2.3 is that there is nothing specific about the ethical decision making process in accounting to warrant a specific theoretical approach. So far, however, nothing has been said about the decision makers themselves, in this case, accountants. It would be interesting to know if there is a typical ethical profile of an accountant. Is there anything noteworthy about the ethical standards or abilities of the people attracted to work in the accountancy profession? The various empirical studies on the ethical reasoning abilities of accountants and auditors suggest three themes which are relevant to the current study. First, a number of studies suggest a possible deficiency in the ethical development of undergraduate accounting students and practitioners (Armstrong, 1987; Lampe and Finn, 1993; Shaub, 1991; St. Pierre et al., 1990)<sup>1</sup>. These studies compared the level of ethical development (usually using the DIT measure) to those of groups of similar aged and educated non-accountant adults, concluding that the accountants' scores were lower. Lampe and Finn (1993), for example, found accounting students' and CPAs' DIT scores to be lower than those of other professional groups such as lawyers and law students, doctors and medical students. Since the DIT allows the comparison of the split of responses between the different stages of moral development, Lampe and Finn were also able to report that the percentage of the accountants' stage four scores was higher than for other groups. They concluded that accounting and auditing practice encouraged the development of a rule-following orientation consistent with conventional levels of ethical reasoning. An alternative explanation for the strength of stage four reasoning amongst accountants found by Lampe and Finn and other researchers has been made by Shaub (1994). He suggests that the DIT may be insensitive to subjects who are capable of reasoning at higher levels but who *choose* to make decisions reflecting stage four considerations, for example by following professional rules. Such individuals may see rules of ethical behaviour in a profession as superseding their own personal intuition. Whether this is the case or not, however, the notion that accountants tend to be conservative and rule-oriented is prevalent in the accounting literature (e.g. Fleming, 1996; Gaa, 1992; Nwachukwu and Vitell, Jr., 1997; Ponemon, 1992).

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<sup>1</sup> For further details of these studies, see Ponemon and Gabhart's (1993) concise review.

Ponemon and Gabhart (1993) argue that rule-orientation is especially pronounced in the US, and they speculate that accountants in other countries such as the UK may be less fixated on rules. So far, however, cross-cultural studies such as Eynon et al's (1996) have not found significant differences in the DIT scores of US and Irish accounting students (or accountants).

A question which is not addressed by the studies on ethical levels of accountants is when the deficiency might first have been evident. There appears, however, to be a general presumption in much of the literature that deficiencies in ethical reasoning abilities of accountants did not exist before the individuals either started their undergraduate accounting studies or before they joined the profession. This assumption is supported by the results of a small number of studies that have investigated, and have not found, a negative ethical self-selection bias in accounting. Ponemon and Glazer (1990) report that accounting and non-accounting students started college at similar levels of ethical reasoning, and Hull (1994) examined the attitudes of UK undergraduates towards various unethical business behaviours, finding no differences between students intending to pursue careers in accounting (not necessarily accounting undergraduates) and those intending to enter other occupations. The likelihood of a particular ethical profile in UK accountancy firms' recruitment is further reduced by the practice of recruiting graduates from all disciplines, such that any ethical biases by subject of undergraduate study would not have a systematic effect. Finally, there is no suggestion anywhere in the accounting literature that there is a negative ethical bias created by the selection procedures used by accountancy firms. On the contrary, Ahadiat and Smith (1994) report that ethical awareness is a very important factor in the recruitment decisions of both large and smaller firms.

One of the implications of the assumption that no ethical self-selection or selection biases exist is a focus in the literature on the ethical effects of accounting education. A number of studies have examined the effect of accounting ethics courses. There is no consensus, however, on this issue. Some scholars claim to show that exposure of accounting students to professional codes in the context of professional education can enhance their ethical abilities (Arlow and Ulrich, 1980; Fulmer and Cargile, 1987; Green and Weber, 1997; Jeffrey, 1993) whilst others conclude that such courses do little to develop undergraduate accounting students' ethical development or ethical orientation (McCarthy, 1997; Shaub, 1991; St Pierre et al., 1990). Some scholars (Armstrong 1987; Ponemon and Glazer, 1990) have proposed that accounting education can actually inhibit ethical development. One possible explanation for this is connected to an observation made by Shaub et al. (1993) that professionals and trainee professionals "become preoccupied with technical issues to the detriment of their

ethical sensitivity". This notion of the possible negative ethical effect of a focus on technical issues in accounting education is developed further in section 3.4.

A second strand of the literature on accountants' ethical abilities has examined (using cross-sectional data) the ethical development of accountants *at different stages* of their careers in public accounting firms (Ponemon, 1990 & 1992; Shaub, 1989). These authors have concluded that moral reasoning tends to increase initially from junior assistant to manager, but that it declines from manager to partner. A possible explanation proposed by Ponemon is that selection-socialization processes cause individuals with too high or too low a level of ethical reasoning to leave the firm or profession. Further, Ponemon (1992) believes that promotion decisions in accountancy are biased in favour of individuals with similar ethical reasoning capacity to managers and partners. He concludes that the culture in accounting firms 'stymies' ethical development. Although there is no existing *direct* empirical literature on the relationship between organisational commitment and levels of ethical development to support the theory of ethical selection-socialisation<sup>1</sup>, it appears to have achieved widespread acceptance in the literature. The theme is explored further in section 3.4.3 on socialisation in the accountancy profession.

A third strand of the literature has investigated differences between various socio-demographic factors and ethical reasoning and attitudes. In particular, several recent studies of accountants (Cohen et al., 1998; Eynon et al., 1996; Jones and Hildebeitel, 1995; Shaub, 1994) have highlighted the issue of gender differences in ethical reasoning. Against a background of intense debate in the CMD literature about gender difference (e.g. Gilligan, 1982; Rest, 1984), all of these studies have found evidence that female accountants' ethical intentions, orientations, and levels of moral reasoning are higher than equivalent stage male accountants. This applies to accounting students, junior audit staff, and higher level managers and partners. Recruitment and retention of female accountants and auditors therefore appears to have implications for the ethical climate of accounting firms. This body of evidence raises a number of interesting questions for accounting researchers, educators and recruiters. The first, why women with high levels of ethical reasoning are attracted to the accountancy profession, remains unanswered. The second concerns the impact of socialisation on the gender differences. Ponemon (1992) found increased homogeneity of ethical perspectives further up accounting firms. With regard to gender differences, this can

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<sup>1</sup> Shaub et al. (1993) investigated the effects of auditors' ethical orientation and sensitivity (although not CMD levels) on organisational and professional commitment. In terms of selection-socialisation, however, their results were inconclusive.

be explained in two ways. Either, as suggested by Ponemon, ethical selection-socialisation causes individuals with particularly high (or low) levels of ethical development to leave - implying that more women than men will leave. Indeed, Almer et al. (1998) have reported that women are perceived to be more likely than men to voluntarily leave public accounting firms. Alternatively, the number of women compared to men leaving the profession may be caused by other factors<sup>1</sup>, and the increase in ethical homogeneity observed by Ponemon may reflect the influence of socialisation in “ironing out” the ethical differences between males and females. Maupin and Lehman (1994), for example, found that both men and women adopt more “masculine” attributes as they progress towards partnership. The attributes may include those relating to ethical reasoning. Several other scholars have argued that occupational experiences override gender differences in ethics and values (Gomez-Mejia, 1983; Harris, 1990; Posner and Munson, 1981). Shaub’s (1994) finding, however, was that women accountants exhibited higher levels of ethical reasoning at all organisational levels, supporting the view that gender differences “survive” the socialisation process. This debate is ongoing (see, for example, Mason and Mudrack, 1996) and further research is clearly needed to investigate the reasons for, effects and longevity of ethical differences based on gender in accounting and in organisations more generally.

The above review of studies on ethical abilities of accountants suggests that accountants may be at lower stages of moral reasoning capacity than other similarly educated groups of adults. It certainly lends little support to the proposition that the accountancy profession develops individuals with *above average* ethical reasoning skills. This may be seen as a matter for concern, especially in the light of evidence in the literature that there is an inverse relationship between level of moral development and ethical/unethical audit behaviour (Ponemon, 1992) and professional ethical matters such as independence (Ponemon and Gabhart, 1990; Lampe and Finn, 1993). The role of education and training in developing ethical awareness has already been mentioned. It is now appropriate to consider the matter in more detail, addressing the ethical impact both of formal education and training, and of less formal socialisation processes.

### **3.4 Accountancy training**

#### **3.4.1 The training process**

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<sup>1</sup> For example, women experience greater levels of stress in accounting firms than men (Collins, 1993), and women perceive that parenthood and partnership are incompatible (Alter, 1991).

In England and Wales, the graduates trainees recruited by chartered accountancy firms come from all academic disciplines. As a result, many have no prior knowledge of accounting. The minority of graduate recruits hold a degree in accounting. By means of accreditation of specific university courses by the ICAEW, the graduates making up this minority are typically exempted from the initial professional examination stages, whereas non-accounting graduate recruits must complete all stages of the professional examination process. This is unlike the system in the US where students must decide on a career in public accounting in advance of going to college, since a substantial proportion of the AICPA training takes place in the context of accredited college courses. It differs also from the Scottish model in which approximately 90% of graduate recruits to the Institute of Chartered Accountants of Scotland hold an accounting degree. As discussed in chapter one, this study focuses solely on ICAEW trainee chartered accountants. The remainder of this section describes the training arrangements for this group.

Under the ICAEW model, successful graduate accountants complete a three year training programme during which they are under a Training Contract with a firm registered with the ICAEW as a training provider. Until recently, chartered accountancy training could only be provided by public practice firms. A minority of trainees are now able to train under Training Outside Public Practice (TOPP) arrangements available in a small number of private and public sector organisations. All chartered accountancy training programmes in England and Wales comprise formal, classroom study at external tutors<sup>1</sup> in preparation for professional examinations, formal in-house job-related training usually provided by the firm, and on-the-job “apprenticeship”, experience and socialisation. The focus of this thesis is ethical decision making. An important research question therefore concerns the extent to which training affects or changes the ethical decision making processes of graduate accountants. The effects on trainees’ ethical attitudes and decision making of training which addresses ethical issues explicitly, and of the training experience generally, are explored next.

### **3.4.2 Ethical impact of accountancy training**

Many accounting scholars claim that classroom exposure to professional ethics enables accountants to deal with the ethical dilemmas they may encounter in practice (e.g. Leung and Cooper, 1994; Loeb, 1988; Ward et al., 1993). An important assumption behind such claims

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<sup>1</sup> The larger firms tend to supplement externally-provided examination training with in-house seminars and various other types of exam support



is that education can be an effective way to change or influence an individual's ethical behaviour in accounting as in other areas of life. Although the literature to support this assumption is not extensive, and there is some debate about the longevity of the effects of ethics education, various authors have nevertheless concluded that the literature is sufficient to support the notion that a correlation does exist between ethics instruction and levels of moral development (e.g. Fleming, 1996; Kohlberg, 1973; Weber, 1990b). Support for this conclusion has also been found in studies of accounting ethics instruction. Various authors have demonstrated that ethical sensitivity or reasoning can be enhanced using even relatively short specific accounting ethics courses (Fulmer and Cargile, 1987; Hildebeitel and Jones, 1992; Welton et al., 1994). The belief, then, in the potential of ethics education to change attitudes and behaviour seems reasonably well-founded. The rest of this section briefly introduces the literature on the goals and methods of accounting ethics education before discussing whether the potential of ethics education is being realised in the accountancy profession.

It is widely accepted that effective accounting ethics education must go beyond the teaching of rules (Fleming, 1996; Gray et al., 1994; Leung and Cooper, 1994; Loeb, 1988). According to Fleming:

“A knowledge of ethical rules cannot, on its own, be said to evidence ... ethical maturity any more than a knowledge of any law can be said to show that the individual is a law-abider” (1996, p. 208)

In a widely-cited paper, Loeb (1988) adapts Callahan's (1980) work on goals for teaching ethics in higher education for the specific context of undergraduate accounting education. The resultant list of seven goals of accounting ethics education suggested by Loeb, summarised in Table 3.1, cannot be achieved by teaching which focuses purely on communicating the rules. In fact, the accounting education literature suggests that the methods by which such goals might be achieved should involve something other than traditional lecture-based programmes which typically rely on a type of passive learning by students (Fleming, 1996), and specifically, that the methods should encourage and require students to adopt a deep as opposed to a surface approach to learning (Gray et al., 1994). Surface approaches to learning are characterised by 'literal memorisation' with the intention to reproduce content, the passive acceptance of information and ideas, and concentration of the learner's attention on assessment requirements (Entwhistle et al., 1992). In contrast, features of deep learning include the intention of the learner to examine the logic of the

argument, to interact vigorously and critically with content and to understand material for him/herself (Entwhistle et al., 1992). Deep learning avoids concerns that accounting ethics education is about indoctrination (Huss and Patterson, 1993; Loeb, 1988) by encouraging learners to question issues for themselves and to arrive at their own conclusions. Deep learning is required if accounting students or trainees are to be enabled to identify and analyse ethical dilemmas and to deal with ethical conflicts. There is a significant body of literature covering issues of pedagogy in ethics and accounting ethics instruction. For a review, see Geary and Sims, 1994. As the primary focus of this thesis is not on the training process itself, but rather on influences on trainee chartered accountants' ethical decision making, this literature is not reviewed in detail. What is important for the purposes of the thesis, however, is to understand the aspects of the training experience which have implications for ethical decision making. The remainder of this section therefore concentrates on discussing the ethical impact of current education and training arrangements.

*Table 3.1: Loeb's list of possible goals of accounting ethics education*

1	Relate accounting education to moral issues
2	Recognise issues in accounting that have ethical implications
3	Develop "a sense of moral obligation" or responsibility
4	Develop the abilities needed to deal with ethical conflicts or dilemmas
5	Learn to deal with the uncertainties of the accounting profession
6	"Set the stage for" a change in ethical behaviour (after college)
7	Appreciate and understand the history and composition of all aspects of accounting ethics and their relationship to the general field of ethics

There are two areas where accountants can potentially be taught. The first is while they are at university. Much of the literature on ethics and education in accounting tends to focus on the role of universities and colleges and, in particular, on the ethical effects of accounting education generally, rather than of ethics education in accounting. There is a substantial amount of evidence which highlights the problem of surface rather than deep approaches to learning accounting subjects at university (for example Lee, 1989; Gray et al., 1994; Gul et al., 1989). These authors argue that students tend to be taught in a technical, value-free

manner which does not encourage deep learning. The impact in terms of ethics is likely to be a rules-based approach to learning which fails to encourage critical analysis and reasoning. The lack of deep learning in accounting ethics education has been proposed as one of a number of explanations for the relatively low levels of ethical reasoning ability of accounting majors discussed in section 3.3. Ponemon (1988) suggests that these relatively low levels are partly a result of the characteristics of the undergraduate accounting curriculum which may actually inhibit ethical development by focusing more on “techniques” and less on encouraging critical analysis and reasoning. In addition to general criticisms of accounting education, there is evidence in the literature that specific coverage of ethics in accounting education occurs in a minority of universities (see Wild and Ahmed, 1994, for UK evidence) and that it tends to be superficial (Hiltebeitel and Jones, 1992; Loeb, 1988).

Langenderfer and Rockness (1989) discuss a number of possible explanations for the apparent reluctance of US accounting educators to incorporate ethics into their accounting classes. These include, first, a belief among accounting educators that either college students cannot be influenced ethically, as they are adults with established personal values, or that an attempt to do so would be indoctrinating and wrong. Second, there has been a lack of appropriate teaching materials such as “real-life” case studies. Finally, but probably most significantly, there is a preoccupation with the rigours and constraints of preparing students for professional examinations. UK accounting educators are faced with similar difficulties. As noted by Lee (1989), increasingly, accounting programmes of UK universities and colleges are being monitored and controlled through the professional bodies’ accreditation procedures. At present, the syllabi prescribed by the UK accreditation bodies are extensive and detailed. To a significant extent, therefore, they control the form and content of university accounting programmes, leaving very limited scope for coverage, with deep learning, of topics such as ethics. At the same time, there is a risk that the proliferation of accounting standards (Zeff, 1989) might feed through to accreditation requirements, further reducing the time and teaching resources available to educators. The accreditation stranglehold provides one possible reason why it is not appropriate for the accounting profession to rely on universities to develop students’ ethical potential. A further, more practical reason, however, concerns the fact that many graduates entering the accounting profession in England and Wales have not studied accounting as undergraduates (approximately four out of five, according to Fleming, 1996). So, even if accounting students did graduate with improved ethical reasoning skills, which seems unlikely from the preceding discussion, still only a small proportion of recruits joining chartered accountancy firms would be “ethically aware”. Fleming (1996) concludes that, as long as there are a

significant number of graduate recruits with no accounting background, that the profession must take full responsibility for the ethical development of its students.

The second area where accountants can be taught is in the profession, as part of the professional training programme. The ICAEW consultative paper, *Effective Education and Training for the 21st Century* (ICAEW, 1986, p.9), states that “the newly qualified (Chartered Accountant) should have acquired the essential professional attributes of integrity, objectivity and an instinctive ethical approach to any situation” and that “the core requirement demands both intellectual ability and maturity”. According to Gray et al (1994), the education of the “professional accountant” requires core skills and technical knowledge *combined with* the development of intellectual capacity to allow the appreciation of the public interest context and the social role of the profession (see, for example, Hopwood, 1990, Power, 1991). Surface-level analysis of the ICAEW examination syllabus indicates that ethical matters are covered in some form in all three stages of the examination process. The Institute's Professional Ethics Department recently conducted research to “better understand the ways in which students... become aware of the existence and nature of ethical guidance and develop the ethical characteristics of Chartered Accountants”. In a report on its findings, Swaisland (1995) concluded that members responsible for training believed that high ethical standards were continuing to be observed and taught. The most effective way to develop ethical awareness was thought to be “by a mixture of formal training (especially participative courses) and work experience” to provide practical experience. From this analysis, then, one possible conclusion is that ethics training is being attended to. There is a body of recent academic literature, however, which is highly critical of ethics education in accountancy, both in terms of the methods used and the underlying motivations of professional bodies. These subjects are addressed in the remainder of this section.

The literature highlights several problems with the way graduates are trained, suggesting that trainees' ethical development may actually be being hindered by the training methods used. The problems arise first, from the nature of the ethical rules of the profession, second, from the need for focus on technical competence for many accounting subjects, and third from the use of teaching and assessment methods which do not support and encourage deep learning. The first problem concerns the nature of professional ethics guidance/rules which makes the training task difficult. As discussed in section 3.2.4, there is a lack of clarity in the profession's ethical guidelines about where members' primary responsibility lies, and that different circumstances may cause the duty of the professional to shift from profession to the public interest or to the client. Accountants therefore need an ability to critically examine and analyse complex situations in order to reach reasoned solutions. Further, the extensive

number of rules covering different situations make it difficult from a training perspective to move beyond knowledge of ethics to the development of ethical maturity<sup>1</sup>. Second, the need for focus on technical competence in many of the subjects included in the professional training programme has led to a reliance by students on surface rather than the deep learning strategies needed for effective ethics education. As discussed above, this is well documented in the context of university accounting education. Fleming's (1996) study of ethics in UK professional accountancy training demonstrates that the focus on technical competence is even stronger than in the university context. Even in the latter stages of the examination process, when more critical, discursive elements, covering ethics, are integrated with technical issues, Power (1991) notes that "the discussion element of questions is effectively subsumed under the tactical/strategic approach both by the restricted time allocation and a de-emphasis within the overall teaching structure" (p.343). Fleming concludes (1996, pp. 212-213):

"The proportionate weighting attached to ethical matters by the professional bodies suggests that technical competence remains of paramount importance and that ethics is, almost, an optional add-on of little importance in its own right. By implication, it may be seen that the professional bodies do not place a high priority on developing their prospective members' sensitivity to moral and ethical justice."

The third problem discussed in the literature is the use of teaching and assessment methods which cannot support deep learning and which make it very unlikely that Loeb's goals for accounting ethics education will be met. Teaching methods include extensive reliance on remote, self-study (Fleming, 1996) which has been shown to be ineffective in developing students' ability to critically analyse ethical dilemmas (Burton et al., 1991). Regarding assessment methods, Fleming (1996) notes that although the *knowledge* of ethical rules might reasonably be assessed using unseen, written examinations in the earlier stages of training, attempts to increase ethical sensitivity in the latter stages are likely to be unsuccessful if they are assessed "in an unseen examination question where the student is expected to write a 750 word essay under severe time pressure and in circumstances which will never again be

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<sup>1</sup> There are moves in the ICAEW, ICAS and ICAI and in other European and international accountancy bodies to shift away from a pure rules-based approach towards a more critical approach based on a conceptual framework. For example, a risk-based approach to integrity, objectivity and independence (the Framework) was introduced by the ICAEW in 1996 which can be used as a basis to identify areas of potential ethical difficulty in different situations. There are, however, many areas where specific guidance on particular situations remains appropriate. Recent revisions to the Guide to Professional Ethics include, for example, specific guidance on insolvency practice, fees, obtaining professional work, changes in professional appointments, due diligence work, accounting for commission, etc. (CAJEC, 1997).

experienced" (Fleming, 1996, p. 214). In the light of these shortcomings of ethics coverage in professional training, it is unsurprising to find damning conclusions in the literature. For example, Power concludes that "the professional education context discloses a systematic erosion of reflective-communicative potentiality" and that it limits the potential for ethical discourse. Puxty et al. (1994) argue that the professional education process produces accountants who possess limited ethical reasoning skills and who have not been encouraged to engage in "critical scrutiny of the ethical dimensions of accountancy practices". Indeed the profession itself has recognised criticisms of newly qualified accountants, admitting that "some [newly qualifieds] are said to lack a conceptual understanding of accountancy" and "...are unable or unwilling to adapt to changing circumstances and lack creative thinking" (ICAEW, 1986, p.9-10).

As mentioned above, the analysis of apparently inadequate attention to ethical issues has provided the forum in which the UK profession's underlying motivations have been questioned. Some scholars take factors such as the extent of control by professional bodies over the university accounting education process and the apparent unwillingness of the profession to address ethical issues as evidence that a conflict model of the UK accountancy profession is more appropriate than a functional model. Lee (1989) argues that the accounting profession maintains a monopoly position by a "closed loop" of practice and education from which research of a fundamental and non-applied nature is excluded, and in which education is seen as existing to meet the profession's and practitioners' needs. He argues that accounting research has largely been excluded from the loop as it can be seen "as a potentially destabilising influence" acting against the monopoly which is maintained by keeping the training and education processes within the loop. Puxty et al. (1994, p. 86) state that:

"It might have been supposed that the accountancy institutions, dependent as they are on their claims to be able to make judicious decisions in the context of self-regulation, and depending for their monopoly of audit services on political goodwill, would ensure that new members were aware of the context within which they had secured such privileges. This is not the case."

Puxty et al. suggest that the only way to break the self-reinforcing circle which produces, through socialisation and training, successive generations of accountants who are unaware of the ethical dimensions of accountancy practice, is to remove the profession's responsibility for training "until they have shown themselves capable of regulating their members in ways which are congruent with their claims to serve the public interest" (p. 77).

Whilst the UK professional bodies would obviously refute any suggestion that their members are not actively involved in serving the public interest, there have been recent minor changes in ICAEW ethics training requirements, suggesting that they are at least aware of increasing disquiet about the state of ethical awareness in the profession. Whether the changes have been introduced genuinely to try and improve matters, or merely as a public relations exercise is open to question, and opinions differ on the subject in line with different views of the appropriate sociological view of the profession adopted. As it was only introduced for graduates joining the profession after July 1996, there are no published studies of its effectiveness yet. It is possible, however, to review the arrangements vis-a-vis the preceding discussion of goals and methods of ethics education. The new arrangements stipulate that all applicants for membership must have completed "appropriate *structured* training in professional ethics". Completion of such training will be added to the confirmatory list of items signed off by the member responsible for training when a qualified accountant applies for membership of the ICAEW. Under the "more clearly-defined arrangements" the acceptable methods of structured training are individual counseling or coaching, video or computer based training packages, case study analysis, and on-the-job training where ethical issues are identified, discussed and explained as they arise (Harwood, 1996). Whilst applauding the aims of these new arrangements to develop greater awareness and ability to deal with ethical issues and conflicts, the way in which they have been framed may compromise their effectiveness. Harwood states that "the variety of options... should minimise resource implications". Firms are therefore given the option to choose the route which causes the least cost and disruption. Not only are there commercial incentives to do this, but it is noted that in an ICAEW survey of training partners (see Swaisland, 1995, for discussion), a number of training partners stated that they did not believe that training could influence ethical behaviour, and would therefore have no incentive to introduce seminars, for example. It is suggested that under the new arrangements, therefore, many firms are likely to choose on-the-job training. Whilst it is a vital part of the deep learning process that students are allowed to reflect on ethics in the context of their practical experience, reliance solely on this method may be unwise for a variety of reasons. First, on-the-job training relies on the ability of audit seniors to identify and discuss ethical issues, a role into which they have not been trained or socialised (Puxty et al., 1994). Second, it takes place in a time-pressured, budget-driven environment not conducive to reflection and deep learning. Third, there is potential for widely varying approaches, due to different personal interpretations within firms, and different organisational cultures between

firms. Further, as noted by Fleming (1996) it seems inappropriate to rely on experiential learning to ensure the development of ethical awareness and reasoning since varying organisational cultures can encourage *or inhibit* ethical development e.g. by perpetuating the bad habits of partners. The new arrangements may, therefore, encourage firms to address the issue of ethics training. However, given their loose and flexible nature and the consequent likelihood of reliance on on-the-job training, they do not encourage firms to provide trainees with a forum in which they can engage deeply with ethical issues in order to develop their ethical reasoning abilities.

It is in the context of academic, and some practitioner criticism of the ethics training offered by the professional accountancy bodies, that the current study of ICAEW trainees aims to explore the effects of the three year training programme as one of the factors which might influence ethical decision making in that time. Based on the literature review above, it is reasonable to expect an increased knowledge of the profession's ethical rules over the period, but no significant improvement in trainees' critical reasoning abilities.

### **3.4.3 The role of socialisation**

An intensive training programme is just one of the common features (Schein, 1988) of a process which has been termed occupational or organisational socialisation by sociologists. Organisational socialisation has been variously defined as "the study of the social organisation of entry into occupations" (Dingwall, 1987), "the process of 'learning the ropes', ... of being indoctrinated and trained" (Schein, 1988) and "the transmission of culture" (Hebden, 1986). It occurs most dramatically when new graduates take up their first jobs in organisations. Because the subjects of the current study are new graduates, it is important to consider the role and relevance of socialisation as it relates to ethical decision making and to the accountancy profession. These topics have been the subject of considerable academic study. This section will briefly introduce the fundamental ideas discussed in the organisational socialisation literature. Then, studies of socialisation in the accountancy profession will be reviewed. An integral part of the reviews of both the general and accountancy socialisation literatures will be the identification of the moral or ethical implications of socialisation.

According to Reichers (1987), studies of newcomer socialisation have focused either on the stages that newcomers go through before becoming "insiders" or on the psychological processes that account for changes in newcomers during socialisation. Stage models (e.g.



Feldman, 1976; Katz, 1980; Schein, 1983) typically have three or more stages including first, the initial encounter stage of building a situational identity and deciphering situational cues, second, a stage concerned with job performance and making an impact on the group or organisation and third, an adjustment stage where individuals finally adapt to organisational norms. In contrast to stage models, process models focus on the means by which socialisation occurs. These models are broadly concerned with how and why newcomers create new identities (Katz, 1980) and make sense of, or attach meaning to, the organisational environment (Louis, 1980). From an interactionist perspective (Blumer, 1969; Mead, 1934; Feldman, 1976), this identity confirmation and sense-making in the workplace occurs through encounters between newcomers and agents of socialisation, for example, through training programmes, direct instructions from bosses, contact with organisational "heroes", receiving of rewards and discipline for the application of different values in problem-solving, etc. Further, the rate at which these encounters occur directly affects the rate of socialisation (Reichers, 1987).

One of the most important contributors to the organisational socialisation literature has been Schein (e.g. Schein, 1961, 1963, 1965; Van Maanen and Schein, 1979). Schein (1988, p. 54 - a reprint of his seminal 1968 article) defines organisational socialisation as "the process by which a new member learns *the value system*, the norms and the required behavior patterns of the society, organisation, or group which he is entering" (italics mine). This involves learning about the basic goals of the organisation, the means by which they should be attained, the responsibilities of membership of the organisation, behaviour patterns for effective performance, and a set of rules for the maintenance of the reputation of the organisation. Schein promoted the notion, now common in the socialisation literature, that there exists an often deliberate process or programme of socialisation which aims first, to *change* the values and behaviour patterns of new entrants to bring them into line with those of the organisation's, and second, to build commitment and loyalty to the organisation. There is some debate about the depth of change in peoples' core values achieved by socialisation. For example, the results of Hebden's (1986) study of graduate trainees suggests that socialisation does not really involve individuals' values changing, rather trainees learning what the value system is and how to cope with it. Most scholars, however, agree at least that socialisation tends to bring about changes in work attitudes and behaviours. Schein maintains that organisational attempts to change values are often uncomfortable for new recruits, involving "upending experiences" and initiation rites when planned or accidental circumstances dramatically upset or disconfirm the new recruit's assumptions about him/herself. Schein (1988, p. 56) describes the socialisation process as "undoing" or "unfreezing" newcomers' values and behaviours:

“The process of undoing or unfreezing is often unpleasant and therefore requires strong motivation to endure it or strong organisational forces to make the person endure it. The formation of a peer group of novices is often a solution to the problem of defense against the powerful organisation, and, at the same time, can strongly enhance the socialization process if peer groups support organisational norms.”

Schein also discusses the role that promotion can play in socialisation. It can, he says, engender commitment to organisational values and goals even from previously uncommitted individuals - “the same values which the member may have criticized and jeered at from his position at the bottom of the hierarchy suddenly look different when he has subordinates of his own whose commitment he must maintain” (1988, p. 58). Subjects in Schein’s own longitudinal study (1988) highlighted the impact of organisational progress and socialisation on ethical beliefs and values when practices they had deemed unethical in their bosses were often quickly and unconsciously adopted when they were promoted and faced different pressures.

The extent to which socialisation affects individuals differentially is also debated in the literature. According to Schein (1988), there are three levels of conformity available to individuals choosing how far to conform to organisational values. The first is rejection of all values and norms, the second, termed “creative individualism”, involves accepting all the key or “pivotal” organisational values (those central to the organisation’s existence) and the third, “conformity” level is when an individual accepts all organisational values and becomes almost a caricature of the organisation’s image. Schein claimed that the first level, nonconformity and the third level, overconformity could be regarded as failures of socialisation, whilst the “creative individualism” level was necessary to maintain innovation and creativity in organisations. Other studies have examined the impact of individual difference variables such as field dependence (Mitchell, 1980), tolerance of ambiguity (Budner, 1962) and need for affiliation (Reichers, 1987) on the impact of socialisation. There do not appear, however, to be any conclusions which have been widely accepted on what might be called individual susceptibility to socialisation. What is agreed, however, is that individuals who are more easily socialised or who have adapted to and assimilated the organisation’s values are more likely to be successful in terms of career progression (e.g. Lockheed, 1980; Ouchi, 1980; Smircich, 1983; Weick, 1979). This phenomenon has been called selection-socialisation and will be discussed further in the context of accounting firms later in this section.

The question concerning the ethical impact of socialisation has not yet been addressed in the current discussion. Whilst there may be grounds for normative investigation of the *methods* of socialisation employed by individual organisations<sup>1</sup>, the literature does not discuss “the ethics of socialisation”, nor does it suggest that there is anything inherently “wrong” with socialisation *per se*. It does, however, underline the powerful role that socialisation can play in changing/shaping individuals’ values, attitudes and behaviours. It is therefore argued by this researcher that the ethical impact of socialisation lies mainly in the normative characteristics of the values and behaviours which are being supported by socialisation. A review of the accountancy-specific socialisation literature supports this argument. The remainder of this section reviews the literature and considers whether there is anything in it which suggests particular ethical outcomes.

The socialisation debate is complicated in the accountancy context by the notion that there are two layers or levels of socialisation, organisational and professional. Coffey (1993) has called this the “double entry” of graduate accountancy trainees into both a profession and an organisation. As discussed in section 3.2.2 above, there are two dominant approaches to the sociology of professions. These are also relevant to the discussion of socialisation. The functionalist approach characterises professions as having distinct functional identities and characteristics which must be learnt by new members. According to this view, core professional values must be internalised during socialisation. In contrast, the conflict view of professions is predicated on the assumption that professions are different to other occupations only in their degree of social control of expertise. If professions are assumed to be no different to other occupations in all other respects, socialisation becomes merely “a subjective and negotiated process, involving ‘getting through’, ‘learning the ropes’ and ‘surviving’” (Coffey, 1993) i.e. there is no distinction between professional and organisational socialisation.

In the functionalist tradition, Schein (1988, p. 59) says that, in professions, “individualism is supported by a set of professional attitudes which serve to immunize the person against some of the forces of the Organisation”. According to Schein, the hallmarks of professionalism in decision making include reference to independent theories and principles, and objectivity and independence from self-interest or organisational-interest in dealings with clients. The development of these professional characteristics in accountants by *professional socialisation* has received relatively little attention in the literature. Instead, scholars have tended to focus on what, apparently, have been regarded as the more powerful effects of

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<sup>1</sup> The author is not aware of any such studies.

*organisational socialisation*. It is possible that this reflects a widely-held view that there is little which identifies socialisation in the accountancy profession as distinctly professional as opposed to organisational. Alternatively, and perhaps more realistically, the focus in the literature on organisational, rather than professional, socialisation probably reflects the fact that firms tend to ascribe to professional values and incorporate professional ideals in their training and socialisation programmes, rarely if ever acknowledging the distinction between professional and organisational values as being a potential source of ethical conflict. In reality, therefore, it seems likely that the edges between professional socialisation, if there is such a thing, and organisational socialisation are blurred. The remainder of this section will focus on the socialisation literature as it relates to the accountancy profession. The term organisational socialisation is adopted henceforth to mean not only the transmission of organisation-specific culture and values, but also any professional values and ideals which are socialised at the organisational level.

Just as in other organisations, the culture of accounting firms has been shown to influence the beliefs and values of their staff (Dillard, 1981; Otley and Berry, 1980). Ponemon (1992) notes that a common theme in the accountancy literature is the presence of "an underlying and often deliberate process of socialisation at work within the accounting firm resulting in acculturation and assimilation of all members entering and remaining in the profession". Further, it is generally agreed that socialisation is very intense in the first one or two years for graduate accountants (Aranya and Ferris, 1984; Lampe and Finn, 1992). This may be due to the high frequency of interactions or socialisation encounters between trainees and "agents of socialisation" e.g. trainers, audit seniors and managers, in the initial period (Reichers, 1987). Until recently, there were very few significant in-depth sociological studies of the socialisation of graduate trainee accountants to parallel either Becker et al.'s (1961) seminal study of the socialisation of medical students or studies of other occupations such as nursing, education and law. Coffey's studies (1993, 1994a, 1994b) of socialisation of trainees in a large UK firm, however, have attempted to begin the process of filling the void. These studies do not address the issue of socialisation on ethical values. A brief review, however, of some of Coffey's main themes serves as a background to the current study by helping to provide an understanding of the experience of trainee chartered accountants.

Coffey (1993) uses five themes derived from the sociology literature as a conceptual framework with which to understand the trainee accountant's experience. She calls these "training for certainty or uncertainty?", "greedy institutions", "reality shock", "training and

idealism” and “learning and working”. First, she argues that accountancy ‘trains for certainty’ in that much of the training reduces problems to a series of facts or ‘puzzles’ to be solved. Whilst trainees in her study did express doubts or uncertainty, it tended to concern their own ability to master the knowledge rather than the knowledge itself. The second theme of “greedy institutions” reflects the often total and unreasonable demands that socialising organisations make on trainees in terms of commitment to the organisation and to its values. As discussed above, the management of organisational commitment is one of the key features of socialisation. Coffey discusses two particular themes in the management of commitment relevant to occupational trainees, the management of self-presentation or personal appearance and the ritual aspects of the management of time. She says that “newcomers to the profession or organisation have to learn, internalise and maintain the ‘correct’ image, both to ‘fit in’ and to demonstrate strength of commitment to the firm” (1993, p. 64). On the use of time, Coffey (1994b, p. 943) argues that her research “revealed that the management and utilisation of time is central to understanding the socialising function of the accountancy firm, and to the ultimate organisational success of the graduate accountant”. She shows that the firm sought to manage not only ‘work’ time, but it also has an impact on the way students managed their own social time.

Coffey’s third theme is the “reality shock” often ascribed to the transition from college or school to work. She describes the way that newcomers may be shocked and discouraged by unmet, sometimes idealistic, expectations, and how the extent of “reality shock” has been shown to be inversely related to organisational commitment in accountancy (Aranya and Ferris, 1984; Dean et al., 1988). The fourth theme of “training and idealism” addresses the issue of the loss of idealism and increase in cynicism which can occur as trainees devise pragmatic strategies to “get through” their training. For example, Power (1991) argues that trainee accountants become cynical about the examination system as a result of the apparent irrelevance of knowledge tested in examinations to their practical experience - they tend to regard the examination system as an “elaborate hurdle” which they must work out how to jump. The final theme, that of “learning and working” refers to the potential problems arising from the trainee’s dual role as student, studying for professional examinations, and worker, earning fee income for the firm on client assignments. Coffey’s five themes may have implications for ethical reasoning which will be drawn out as appropriate in the context of discussion the present study’s findings. There is, however, one particularly important aspect of Coffey’s studies of graduate accountancy training, that is the use of a group

perspective by trainees “as a strategic device to cope with and make sense of early training experiences” (1994a, p. 38). Coffey asserts that this group perspective formed the reality of how new recruits made sense of, and coped with all the various aspects of the socialisation process. The notion of the group perspective is employed in the current study by using it in the development of a measurement scale for socialisation in the accountancy training context. Scale development is discussed further in section 5.4.3.5.

Other aspects of socialisation identified by scholars to be important in the accountancy profession include the process of selection-socialisation (Benke and Rhode, 1984; Davidson, 1990; Ponemon, 1992). Davidson (1990) claims that selection-socialisation in accounting firms occurs in two ways. First, individuals who find they cannot “fit” with the culture of the firm may voluntarily choose to leave and second, management may actively seek to hire and promote certain types of people who have, or are likely to, adopt organisational values. Studies have shown that these people tend to hold values which are similar to those of management, and that, as a result, organisational cultures in accounting firms tend to become self-perpetuating and strong (Benke and Rhode, 1984; Rhode et al., 1976). The widely acknowledged “up or out” philosophy of large accounting firms (Davidson, 1988; Ponemon, 1992) further strengthens accounting firms’ culture by leaving those who are not promoted disillusioned and likely to leave (Aranya and Ferris, 1984; Blank, 1984; Dean et al., 1988).

The accounting literature has also highlighted the ethical implications of socialisation in the profession. The potential for socialisation to impact specifically on the ethical attitudes of newcomers to the accountancy profession is described by Puxty et al. (1994, p. 80) in the following conflict-orientated terms:

“Accountants are socialised into preferred worldviews through ... examinations and their work experience. The *construction* of what is ethical is thus the result of a learning process in which the accountancy bodies and firms, as qualifying agencies and providers of mentors, are highly influential.”

Thus, Puxty et al. (1994) argue that the UK accountancy profession’s reluctance to protect the public interest, already discussed in section 3.4.2, is perpetuated through socialisation and training. In addition to the general role of ethical inculcation ascribed to socialisation, various scholars have argued that the selection-socialisation process in accountancy has very specific ethical implications (Ponemon, 1990, 1992; Puxty et al., 1994; Shaub, 1989, 1994). These scholars argue that the types of values supported by selection-socialisation cause an

*ethical* selection-socialisation process by means of which individuals fitting a particular ethical profile are more likely to stay within the profession than others. It is argued that individuals fitting the profile are conventional, as opposed to high moral reasoners (see discussion of Kohlberg's levels of cognitive moral development in chapter 2) who take a rigid rule-following approach to ethical matters. Essentially, the ethical selection-socialisation hypothesis argues that trainees self-select and employers counsel out individuals who have too high or too low a level of moral development to "fit" (Lampe and Finn, 1992). This can be interpreted as an extension of the discussion above about how a strong corporate culture is perpetuated in accounting firms i.e. an ethical culture is maintained which is not characterised by high levels of moral reasoning, but which is nevertheless very entrenched. According to Shaub (1994, p. 23):

"Predominantly rule-oriented ethics education, when combined with the selection-socialization processes demonstrated by Ponemon (1992), seems to result in conventional moral reasoners in accounting firm management. This setting offers the potential for firms to be controlled by those whose need for affiliation with referent groups (such as peers within the firm and clients) may cause them to compromise when ethical rules clash with the reference group's norms."

This quotation implies that adherence to professional rules will result as long as the rules are consistent with the firms' norms, assuming the firm to be the main reference group. If, however, there is a conflict between organisational and professional norms, there is possibility that professional requirements will not be upheld (Ponemon, 1992). Such ethical conflicts probably do not occur frequently, but as we have seen, they are nevertheless inherent in public accounting. The implications of the socialisation literature are potentially disturbing, therefore, for those concerned about the health and future of the accounting profession.

### **3.5 Summary and conclusion**

Chapter 3 has reviewed literature relevant to the accountancy context of the present study of ethical decision making. There are some potentially disturbing conclusions to be drawn from the review. Research has shown that there are a range of different ways in which ethical conflicts can arise in professional accounting, and that these conflicts are in fact inherent in the practice of accounting. Further, the discussion of the role of codes of professional and ethical conduct suggested that there are various persuasive arguments as to why such codes cannot be relied upon to prevent serious ethical lapses by accounting practitioners. Studies

on the ethical abilities of accountants themselves offer no indication that accountants are any more likely to be able to resolve ethical conflicts than other similarly-educated adults. Further a number of studies actually suggest that there may be a possible deficiency in the ethical development of accountants. This is compounded by the evidence from the literature on training and socialisation which suggests first, that accountancy training may engender a rule-following approach which does not equip accountants to deal with complex ethical situations and second, that there may be a negative selection-socialisation process embedded in the culture of accounting firms which effectively 'stymies' ethical development (Ponemon, 1992). The resulting conclusion of this literature review may well be, therefore, that those who must resolve ethical conflicts are ill-equipped to do so.

The two streams of literature of direct relevance to this thesis are first, literature on ethical decision making, and second, literature concerning accountants' ethics, and the impact on accountants' ethics of training and socialisation. Chapters 2 and 3 have reviewed these bodies of work. While the two chapters do not claim to exhaust the research and literature in these fields, they do seek to provide a framework within which the current study may be located. Drawing on the two streams, the next chapter develops a model, and related testable research hypotheses, of ethical decision making for accountants incorporating the effects, over time, of training and socialisation. Although models of ethical decision making have been designed specifically for accountants, these have been static models which ignore the intertemporal effects of various factors on the ethical decision making of a specific group of accountants, namely trainees.



## Chapter 4: A synthesised model of ethical decision-making

### 4.1 Introduction

The literature on ethical decision making is primarily conceptual. There is widespread agreement (Randall and Gibson, 1990; Jones, 1991; Ford and Richardson, 1994) that what is needed to advance the understanding of ethical decision making is empirical testing of the existing broad frameworks outlined in chapter 2. An extreme view of the relationship between conceptual and empirical work in ethical decision making is that there is no need for further theory development until empirical studies have explored/validated the multitude of existing untested models. This thesis will demonstrate, however, that theory *can* usefully be defined and extended in order to make it more testable and thus to help break the present conceptual log jam. Empirical testing to date, although limited, has provided some support for the main ideas incorporated in the models. The aim of the current study is to develop and test an existing framework, using insights from existing empirical work for guidance, for example, in the development of specific research hypotheses. Formal model and hypothesis development is characteristic of research conducted in the functionalist, empirical paradigm. The adoption of this approach represents the choice of a particular philosophical perspective regarding the nature of knowledge which is fully discussed and justified in chapter 5.

The original contribution to theory offered by this thesis derives from two areas. The first involves the use of values as the main driver of ethical judgement, instead of the commonly discussed CMD or moral philosophy bases. This chapter develops the theoretical basis for the inclusion of values in ethical judgement, and then generates related testable research hypotheses. The second area in which a conceptual contribution is made by the current study lies in its exploration of the role of time in ethical decision making. Although a number of theoretical models have incorporated dynamic elements through the use of feedback loops, the subject of how ethical decision making changes over time has not received much attention, conceptually or empirically. The contribution of this study involves the adaptation and development of an existing framework of ethical decision making to incorporate dynamic components. The thesis offers further original contributions in respect of operationalisation and empirical testing of the ethical decision making model, incorporating the values basis and the dynamic elements, and in respect of the new empirical context (UK graduate trainee accountants). These will be discussed in more detail in chapters 5 and 6.

The purposes of this chapter are first, to outline and justify the theoretical framework chosen as the basis for the current study and to establish which particular component of the framework it develops and tests (section 4.2.1.). Secondly, section 4.2.2 discusses the theoretical extension to the framework which is developed to accommodate a values basis for ethical judgement and dynamic components. Finally, in section 4.2.3, the adapted, values-based model is used to generate cross-sectional and dynamic hypotheses for testing.

## **4.2 Model development**

### **4.2.1. Theoretical basis**

The framework selected is Jones' (1991) synthesis model of ethical decision making. This has yet to be verified empirically, but it synthesises the models of Rest (1986), Trevino (1986), Dubinsky and Loken (1989), Ferrell and Gresham (1985), and Hunt and Vitell (1986) which are widely regarded as representing the most important contributions to the understanding of ethical decision making. It uses the four-stage approach of James Rest, discussed in section 2.3.3. It was chosen firstly because it explores the ethical decision making process in detail using the stage approach rather than treating ethical decision making as a "black box", and secondly because it synthesises the major contributors while leaving open some key questions on which there is little agreement in the literature, particularly the issue of the most appropriate driver of ethical judgement. The model begins with awareness or the recognition that a moral issue is present. Recognition is influenced by environmental factors such as societal or organisational norms. The second stage involves making a judgement about the moral issue, followed by the determination stage which concerns the establishment of intention to act in a certain way (which may or may not be in accordance with moral judgement). The final stage is the action stage in which the individual engages in moral behaviour. Various individual and situational variables influence the judgement and determination stages, and moderate the relationships between judgement, determination and action. An important feature of Jones' synthesis model is the inclusion of the moral intensity construct which impacts on all stages of ethical decision making. Some empirical research has been conducted on moral intensity and, although further work is needed to establish the validity of Jones' precise conceptualisation, most contributors to the ethical decision making literature seem to accept as uncontroversial the notion that characteristics of the moral issue itself influence the ethical decision making process. The model offers a comprehensive theoretical understanding of ethical decision making. As discussed in section 2.3.3.3., it is, however, unrealistic to test the whole of the

model in a single study. For this reason, one particular component of the model was chosen as the focus for the current study.

The part of the Jones model selected for testing is the judgement stage. Moral judgement was chosen because, intuitively, it represents the heart of ethical decision making and the key element in the process of an individual deciding what is “just” or “right” or “ethical”. Pragmatically speaking, it is also the component of ethical decision making most readily operationalised using questionnaires. Attempting to measure intentions or behaviour in this way is either very difficult or impossible. Figure 4.1 reproduces the Jones’ model from chapter 2, using bold lines and italics to show the parts tested in this study. Most of the multivariate models specify a process for the judgement stage, usually cognitive moral development (Rest, 1986; Trevino, 1986). Others specify moral philosophy as the driver of ethical judgement (Ferrell and Gresham, 1985; Hunt and Vitell, 1986; Dubinsky and Loken, 1989). As we have seen in chapter 2, however, there is another approach to examining ethical judgement, that is a values-based approach. Chapter 2 discusses the role of values in decision making and gives a justification of the values-based approach. Repetition is not necessary here except to recall that moral judgement may be motivated by values, but precisely how values affect attitudes and decision making is dependent on interaction with other attitudes, plus other factors such as temperament and situational influences. In a work context, the situational influences are likely to be particularly strong. A model of ethical judgement of professional accountants has therefore been developed for this study. It is based on the Jones model but develops some of the relationships using a values-based framework. It is therefore a theoretical extension of Jones, and of the models which Jones synthesises. Figure 4.2 depicts this model - it gives a diagrammatic indication of the relationships which are used to derive specific hypotheses in section 4.3. The next section gives a descriptive outline of the model and a discussion of some dynamic issues.

#### **4.2.2. The model**

The model developed in this thesis posits that personal values drive ethical judgement. The decision on how to depict this relationship in Figure 4.2, however, was not an easy one. The difficulty arises in relation to theoretical uncertainty about the process by which personal values influence ethical decision making. Scholars using other bases for moral judgement, particularly

Figure 4.1: Jones' synthesis model of ethical decision making

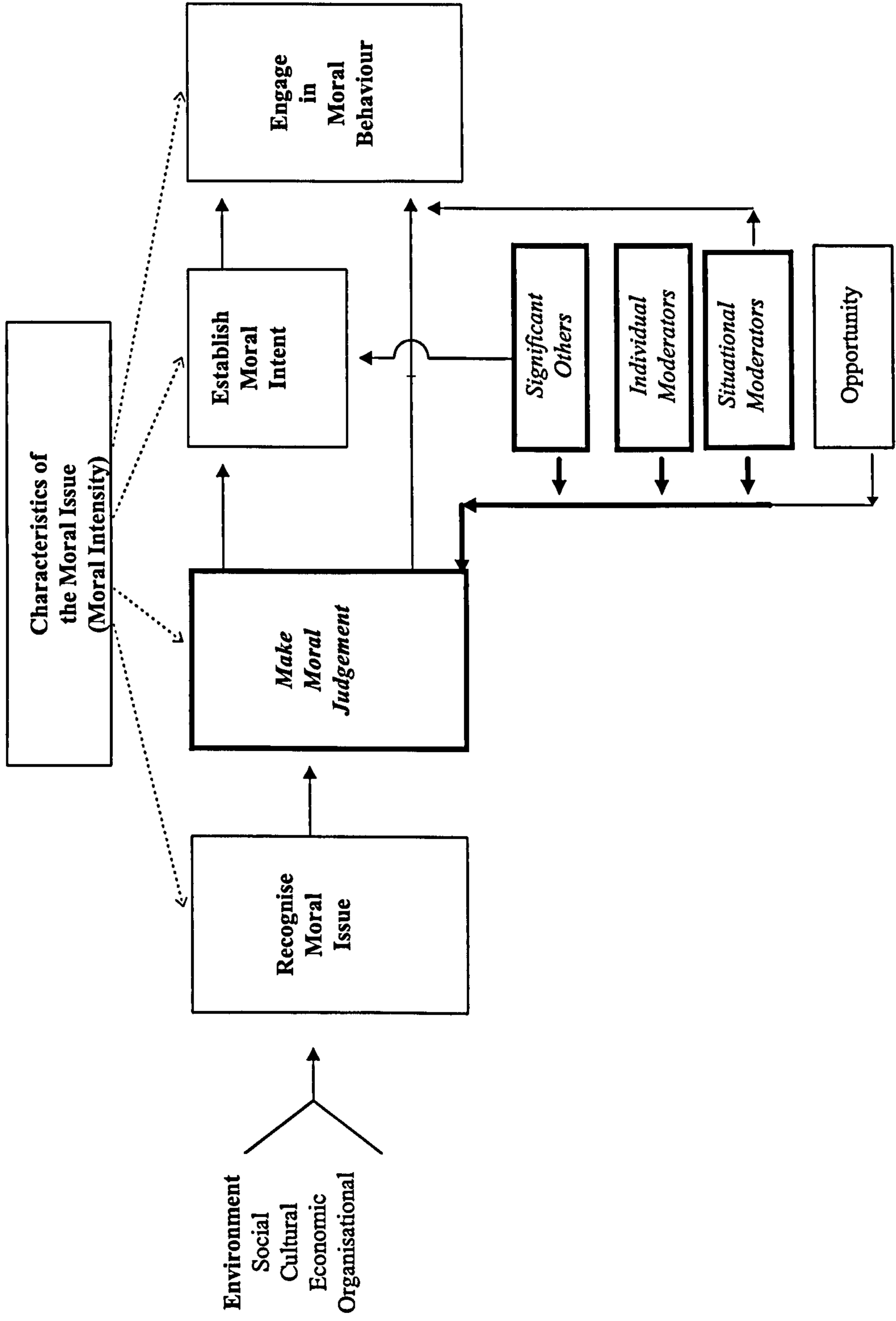
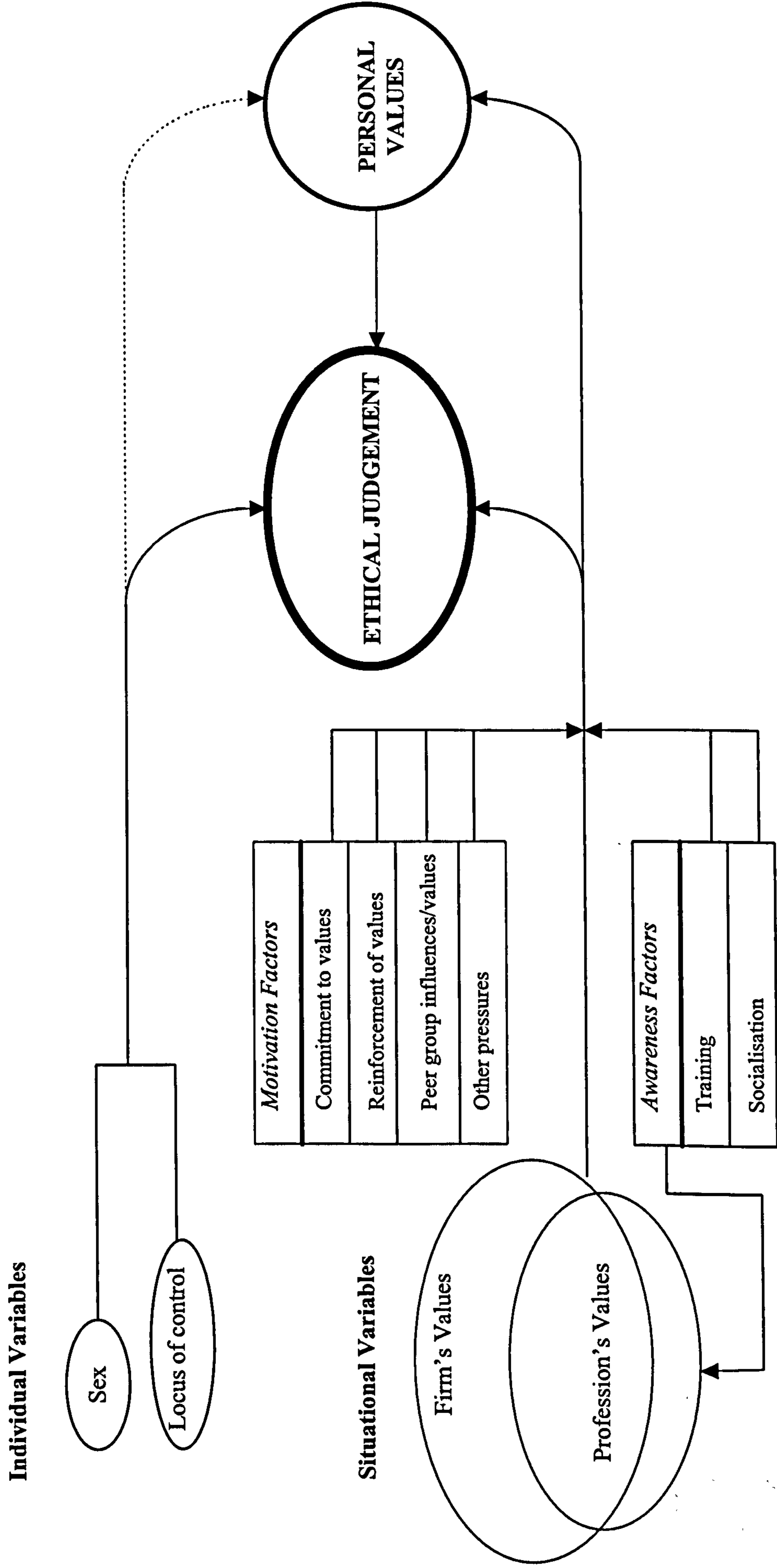


Figure 4.2: Model of the ethical judgement of accountants.



CMD, have had less uncertainty to deal with. Trevino (1986), for instance, characterises CMD as the process by which ethical judgement occurs<sup>1</sup>, and through which the effects of individual and situational variables are moderated. The relative maturity of the CMD literature allows Trevino to disregard the possibility that these other variables can influence ethical judgement directly. The model developed in this thesis posits that the personal values construct is the key driving force behind ethical judgement. The values literature, however, is less clear than the CMD literature about how personal values influence ethical judgement. The model developed for the current study expresses this uncertainty by allowing for the possibility that ethical judgement is influenced by personal values but that other influential variables can also affect ethical judgement directly. Furthermore, it allows the possibility that other factors can influence ethical judgement indirectly via personal values.

The model posits that personal values drive ethical judgement, but that there are two categories of variables which can influence ethical judgement either directly or via personal values. The first category consists of individual moderators. Variables in this category to be tested include gender and locus of control. The way the second group of moderators work is more complex. Sections 2.5.5. and 2.5.6. reviewed the general literature on organisational values and presented a justification of their importance in ethical decision making. The model therefore includes organisational values as a significant influence on moral judgement. As discussed in section 3.2.3, there are different sources of organisational values relevant to professional accountants notably profession-wide values and the values of particular firms. In the main, firms' values encompass the values of the profession. A substantial departure from this position would, over time, jeopardise a firm's reputation and therefore its commercial survival. The competitive realities of modern-day accounting, however, demand that firms hold additional values relating to their strategies as commercial organisations. Professional values are thus depicted in Figure 4.2 as intersecting sets with firm's values. The majority of professional values are also adopted by firms. The values which fall outside the professional values category are mainly concerned with the commercial success of the organisation. They might, but do not necessarily, conflict with the professional values in the inner box. An example of a conflict would be if a firm was aware of a material conflict of interest from a potentially lucrative new audit engagement. Acting according to professional values might mean declining the engagement which, using commercial values, could be defined as a good business opportunity. The professional values

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<sup>1</sup> It is nevertheless operationalised in the manner of a structural construct by measuring individuals' level of moral development, using it to signify the individual's adopted process of moral reasoning.

which do not coincide with firms' values represent values important, say, to the ICAEW but which are not of particular concern to individual firms, for example, maintaining the "brand value" of the Chartered Accountant title, or representing the interests of members in wider dealings with society. The model posits that individuals' perceptions of the importance of professional and firm-specific values and of any conflict between them is related, amongst other things, to various aspects of awareness or salience of the values. Specifically, this study includes training and socialisation as variables which might differentially affect awareness and perception of organisational values.

The next relationship for the model to address is that between organisational values and moral judgement. The model posits that organisational values influence the ethical judgement of individuals directly (section 2.5.5), but that organisational and personal values can be interrelated (section 2.5.6) i.e. organisational values can be compared with and/or incorporated into individuals' personal values. These two paths are reflected in Figure 4.2. There are two groups of variables included in the model which moderate the relationship between organisational values, personal values and ethical judgement. They are first, the awareness factors of training and socialisation mentioned above and second, factors associated with the motivation of the individual to adopt or conform to organisational values. The importance of training and socialisation has been discussed in chapter 3. The motivation factors deal with various aspects of motivation i.e. "what energises action; how action is directed; to what extent action is under voluntary control" (Vroom and Deci, 1992, p.9). The extent to which an individual is motivated to comply with or adopt organisational values moderates the potential impact of organisational values on personal values and on moral judgement. Factors included are commitment to professional and firm-specific values, reinforcement contingencies, peer group influence and other external pressures such as time, scarce resources, personal costs, or competition (Trevino, 1986). The model suggests that the awareness and motivation factors moderate the influence of organisational values both on personal values and on ethical judgement directly. However, in order to avoid excessive complexity, and to facilitate empirical testing, this thesis will examine the impact of organisational values on personal values. It will, however, limit its examination of the moderating effects of the awareness and motivation factors to the direct effect on ethical judgement which is the key variable being studied. Furthermore, the moral intensity construct is not included in the model. The focus of the study is the examination of change over time in ethical decision making of trainee accountants. This necessitated the use of the same scenarios in different time periods, thus

effectively controlling for moral intensity. Although moral intensity is an important and interesting subject for study, due to the risk of respondent fatigue and subsequent constraints on questionnaire length, its inclusion in the current study would have meant reduced opportunities to collect potentially important situational data.

The relationships outlined above have been discussed mainly in a cross-sectional or "snapshot" context. This is in accordance with most of the conceptual work on ethical decision making which seeks to explain the process of making an ethical decision at one point in time. Just as an individual's approach to general decision making might change over time, however, in response to various individual and particularly situational factors, ethical decision making can also be expected to change. Yet dynamic issues in ethical decision making have not really been addressed in the literature. This is probably because the field of ethical decision making in business is a relatively new one - the major conceptual advancements in understanding the ethical decision making process have come in the 80's and early 90's. A great deal more work needs to be done to arrive at more parsimonious versions of existing theories as well as working out how to operationalise and validate the theoretical relationships. Dynamic issues in ethical decision making have therefore received very little attention. Running parallel to the work on modelling ethical decision making, there is a strand of literature which explores changes in ethical reasoning (mainly CMD) in response to various educational interventions. The part of this strand relevant to accountants has already been discussed in chapter 3. Further, there are studies examining factors which influence the personal values adults hold such as the values of reference groups, religion-church influence and functional need for values. For a review of these studies, see Kilby (1993). The point here is that although the two types of research have been conducted, modelling ethical decision making and examining various antecedents to changed values or levels of CMD, they have not yet been integrated. The ultimate aim of integrating them might be to gain an understanding of the *process* of change in ethical decision making in addition to understanding the ethical decision making process itself. The professional training experience of graduate accountants in the current study provides a particular process of change. In view of the lack of theoretical guidance, it is unrealistic to expect that this thesis can offer a detailed understanding of the process by which the training experience causes ethical decision making to change. It can, however, examine ethical decision making outcomes in a dynamic way, rather than relying solely on looking at ethical decision making at one point in time. Specifically, we can examine two aspects of change. The first involves looking at factors influencing ethical decision making and seeing if they change,



becoming more or less important, over time. The second concerns time interdependence of ethical decision making, e.g. whether ethical decision making in one time period is influenced by ethical decision making in the previous period, or by other factors which have happened over time.

### **4.3 Development of hypotheses**

#### **4.3.1. Introduction**

By definition, situational variables are those which are only relevant to the situation in which ethical decision making is taking place. The extent to which an individual is influenced by them is affected by his/her involvement in, and experience of, that situation. For example, a brand new trainee is likely to be influenced very differently by situational variables than an experienced manager. Most of the literature, however, does not discuss the dynamic context. Rather it investigates relationships between individual and situational/organisational factors and ethical decision making by taking a cross-sectional “snap shot”. This is perfectly valid if the situational influences are fairly stable as they are in many studies of behaviour in organisations. Where the dynamic context becomes more important is where the impact of situational influences is not stable, rather it is changing relatively quickly. This is almost certainly the case in the current study since it deals with new recruits to the organisational setting. For this reason, two types of hypothesis are raised in the following sections, cross-sectional and dynamic. The first type deals with relationships which, from the literature, one would expect to exist in a single period of time. In the current study, these hypotheses are empirically tested mainly by using cross-sectional data. Where a full set of data is not available for the time period in question, e.g. locus of control data was only gathered in year 1, longitudinal data can also be used, but only as a proxy for the missing data<sup>1</sup>. The second type, dynamic hypotheses, deal with relationships which the literature suggests or implies will change over time. The dynamic hypotheses can broadly be characterised as dealing with the various effects of experience of the professional accounting environment. They can be tested by means of comparing a set of cross sections in different time periods, or by “true” longitudinal testing which examines time interdependence of the constructs.

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<sup>1</sup> The data is missing essentially because of limited space on the questionnaire. Some of the more stable constructs were only included in one questionnaire to allow space for other changing situational variables in subsequent years. This issue is discussed in more detail in section 5.4.4.1. “Proxy” data is only used in hypothesis testing where there is support in the literature for the notion that the missing data is a relatively stable construct over time such as locus of control.

The following sections generate specific hypotheses which deal with the relationships described in section 4.2.2 above, drawing on literature reviewed in chapters 2 and 3. All hypotheses are stated in their alternative form. Hypotheses are marked according to whether they deal with cross-sectional relationships -  $H^C1$ ,  $H^C2$ , etc., or with relationships which might be expected to change over time -  $H^D1$ ,  $H^D2$ , etc.

### 4.3.2. Individual variables

This section examines the first of two categories of postulated influences on ethical decision making, those associated with the individual decision maker.

#### 4.3.2.1. Personal values

Section 2.5.4. argued that personal values influence ethical judgement in business, just as they do in other contexts. As we have already seen, however, there are very few empirical studies linking personal values and ethical judgement in the business context which can be used to generate research hypotheses. Those that do exist tend to support the existence of a positive relationship (e.g. Carlson and Kacmar, 1997; McCabe et al., 1991). Ford and Richardson report that out of a number of studies of the effects on ethical standards of different aspects of religious values such as religious value orientation, denomination, frequency of church attendance and strength of religious belief, the only significant predictor was strength of belief (McNichols and Zimmerer, 1985). This finding is supportive of Kilby's (1993) assertion that an individual's strength of conviction about values will help determine whether a value concept will actually affect judgement and behaviour. The following hypothesis is therefore suggested:

**$H^C1$ :** Individuals with strongly held personal values will make judgements of a more ethical nature in situations which involve ethical issues than individuals with weakly held personal values.

Personal values are specified as an evaluative set of generally accepted, intrinsically valued<sup>1</sup>, desired states as suggested by Rokeach in his widely-used Rokeach Values Survey (1973)<sup>2</sup> e.g.

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<sup>1</sup> Intrinsic value refers to something being valued "for its own sake" as opposed to things which are instrumentally valuable which are valued "for the sake of something else" (Werhane and Freeman, 1997).

<sup>2</sup> The Rokeach Value Survey will be discussed in more detail in chapter 5 in the context of operationalisation.

pleasure, wisdom, equality. The hypothesis encapsulates the basic idea about what is driving ethical judgement. As has already been discussed, however, there are other complicating individual and situational factors which may moderate or alter this relationship. These will be addressed in the appropriate sections below.

#### **4.3.2.2. Additional individual variables**

*Age.* Ford and Richardson (1994) in their review of empirical studies report mixed results regarding differences in ethical reasoning and ability by age; some studies find older age groups to have more ethical tendencies, some find the reverse and some find no significant correlations. Furthermore, the subjects in the current study are mostly of very similar ages. For these two reasons, age is unlikely to provide significant explanation of variance in ethical decision making, and no hypothesis is suggested.

*Sex.* Ford and Richardson note that sex is reported in more empirical studies than any other single variable. Not all but most of these studies reveal that females are likely to think and act more ethically than males. There has been much discussion of the possibility of a fundamental difference between men and women in their approach to resolving moral conflict. Much of the debate stems from the work of Carol Gilligan (1977, Gilligan et al., 1988) who criticised the theory of cognitive moral development for its reliance on Kohlberg's justice perspective. She argued that a "care" perspective was more likely to be used by women. Whilst Rest (1986) has argued that Gilligan's view regarding gender difference is not supported by DIT research, other studies (e.g. Arlow, 1991) have continued to report that females use a different mode of ethical decision making. These include St. Pierre et al.'s (1990) and Jones and Hildebeitel's (1995) studies of professional accountants. Further, as discussed in section 3.3, there is a growing number of studies to support the view that female accountants' ethical intentions, orientations, and levels of moral reasoning are higher than equivalent male accountants. Based on both theoretical and empirical research, therefore, there appears to be considerable agreement for the notion that women are more advanced ethically than their male counterparts. More specifically:

**H<sup>C</sup>2:** Female professional accountants will exhibit higher levels of ethical judgement than males.

There is also a dynamic issue regarding gender. Some studies have suggested that gender difference may be context specific (Derry, 1989; Gilligan and Attanucci, 1988) and that they may be mitigated over time by strong organisational cultures (Mason and Mudrack, 1996; Trevino, 1992; Weber, 1990a). Chapter 3 discussed the debate about whether gender differences in ethical decision making “survive” the forces of organisational socialisation into the strong culture of most professional accounting firms. Although there are other possible explanations discussed in section 3.3, the increase in ethical homogeneity with increasing seniority found by Ponemon (1990) may indicate that gender differences are mitigated by the organisational environment. Based on this discussion, the following hypothesis is suggested:

**H<sup>D</sup>1:** Gender differences in ethical judgement will become less apparent over time as trainees are socialised into organisationally determined norms and roles.

*Locus of control.* The personality variable locus of control (Rotter, 1966) has been included in, or the subject of, numerous studies of behaviour in recent years. A review of chapter 2 will remind the reader of the studies which have included locus of control in studies of ethical behaviour in business (e.g. Tsui and Gul, 1996; Trevino, 1986; Trevino and Youngblood, 1990; Jones, 1991, etc.). The majority of studies of locus of control have reported that internals are more ethical than externals, and they tend to make ethical decisions more frequently than externals. The reasoning behind this (Trevino, 1986; Tsui and Gul, 1996) is that internals regard themselves as being in control of their own destiny, and are therefore more likely to do what they think is right and to take responsibility for such decisions. Externals, on the other hand, rely on luck, fate, and chance which predisposes them against taking responsibility in their determination of right and wrong. Locus of control has thus been significant in explaining the variance in ethical behaviour and it is relatively uncontentious to suggest the following hypothesis:

**H<sup>C</sup>3a:** Subjects with internal locus of control are likely to make ethical judgements of a more ethical nature than those with external locus of control.

In chapter 2, the notion of ethical conflicts between individual and organisational values (Liedtka, 1989) was introduced. The multidimensional measurement scale to be used in the current study (discussed in detail in section 5.4.3.11) has the potential to provide evidence of such conflicts. It is part of the original contribution of this thesis to investigate the notion

that there is a relationship between locus of control and conflicts in ethical judgement. Because internals are predisposed towards taking responsibility for the determination of right and wrong, it seems likely that they will be more perceptive of situations in which their own values determine a judgement which does not agree with the judgement made according to organisationally-determined ethical standards or rules:

**H<sup>C</sup>3b:** Subjects with internal locus of control are likely to experience more conflict between personal and organisational aspects of ethical judgement than subjects with external locus of control.

So far, in H<sup>C</sup>3a and H<sup>C</sup>3b, the focus has been the effect of locus of control on aspects of ethical judgement directly. Interestingly, several studies have also investigated the relationship of locus of control and the moral reasoning process itself (Janzen and Boersma, 1976; Tsui 1994). Tsui's study provides evidence of a relationship between locus of control and level of CMD, specifically that level of CMD moderates the relationship between locus of control and ethical behaviour. Thus, locus of control interacts with moral reasoning to affect ethical behaviour. This discussion raises the question of whether there is a relationship between locus of control and personal values. Although the literature offers no precedent for the interaction of personal values and locus of control, one might reasonably argue that values held with great conviction might be in accordance with the notion of an internally controlled individual. The notion that locus of control interacts with personal values to affect ethical behaviour is therefore investigated in a two-stage, path analytic manner. H<sup>C</sup>3c, which follows, examines the effect of locus of control on personal values and H<sup>C</sup>1 investigates the effect of personal values on ethical judgement. Given that the link between locus of control and personal values has not previously been investigated, the following hypothesis is suggested as part of the original contribution of this thesis:

**H<sup>C</sup>3c:** Locus of control interacts with personal values to affect ethical behaviour in the following manner: Individuals with internal locus of control orientation are more likely to have strong personal values (and therefore higher levels of ethical judgement - H<sup>C</sup>1) than external individuals.

*Other factors.* Ford and Richardson (1994) note that the impact on ethical decision making of factors such as education, number of years employed, socio-demographic background (e.g.

parents' occupation) and income level are seldom reported in empirical studies. They conclude that further research is needed despite the fact that existing empirical evidence suggests that such factors are unlikely to hold much explanatory power. Therefore, although the current study collected some information on educational background, years of prior full-time employment and marital status, the literature does not support the raising of specific research hypotheses. In any case, many of these socio-demographic factors are effectively controlled for by the study since, being graduate recruits, most of the subjects have similar employment and educational backgrounds. Furthermore, they are mostly of UK origin: The number of subjects in the sample with non-UK childhood homes was not large enough to allow statistically meaningful comparisons of cultural differences to be made. Ford and Richardson also highlight the small number of studies investigating personality-based factors on ethical decision making. They cite studies on Machiavellianism, locus of control, and values, all of which are dealt with elsewhere in this thesis. It appears that there are no other major studies of personality and ethical decision making which are relevant here.

### **4.3.3. Situational variables**

This section examines the second of two categories of postulated influences on ethical decision making. It consists of variables associated with the framing and definition of the situation in which the individual makes ethical decisions.

#### **4.3.3.1. Organisational values: Firm and professional**

The general importance in ethical decision making of organisational values has already been discussed. Organisational values are important, however, only to the extent that they are recognised, known, or understood i.e. to the extent that individual decision makers are aware of them. The current study's unique context of a longitudinal examination of graduate recruits affords the opportunity to examine the impact of changing perceptions of organisational values during the initial years of organisational life. The role of socialisation in the accountancy profession in developing and changing graduates' values so that they conform to professional and organisational values has been discussed at length in section 3.4.3. One conclusion of this discussion was that socialisation is particularly intense for graduate accountants in the first few years after joining the profession i.e. the period covered by this study. The intensity may be due to the high frequency of socialisation encounters (Reichers, 1987) embedded in early on-the-job and formal training. Furthermore, literature reviewed in chapter 3 supports the notion that organisational values relating to the commercial success become more influential as

accountants progress up the organisational ladder. This notion is supported by the literature in two ways. First, the discussion, in section 3.2.3, of features of the profession with implications for ethical behaviour concluded that ethical values tend to be effectively de-emphasised in favour of values relating to “value creation” and “practice development” (McNair, 1991; Schlacter, 1990; Westra, 1986). Second, the literature on selection-socialisation reviewed in section 3.4.3 implied that individuals with values similar to management tend to be successful in accounting firms. Organisational values can be described as being influential in two ways. First, the individual’s knowledge of organisational values may have a direct bearing on their ethical judgement. Second, organisational values can influence ethical judgement indirectly through personal values.

*The influence of organisational values on ethical judgement.* As all the firms in the current study are members of the ICAEW, the organisational values relating to the profession are the same for each one. Profession’s values as a direct influence on ethical judgement are therefore effectively controlled for. Differences in the perceptions of the profession’s ethics may, however, arise as a result of firm-specific influences. These are covered in the examination of the moderating effects of awareness and motivation, dealt with in sections 4.3.3.2 and 4.3.3.3. The following hypotheses relate mainly to firm-specific factors. Literature reviewed in section 2.4.5 supports the development of the following hypotheses about the direct impact of organisational values on ethical judgement. In the context of accountancy, support for the inclusion of the hypotheses is found in Finn et al. (1988) who concluded that the attitude and commitment of local partners to ethical standards greatly influenced the ethical attitudes and behaviour of their subordinates:

**H<sup>C</sup>4:** Ethical judgement is positively related to firms’ support of ethics.

**H<sup>C</sup>5:** Firms which have strong organisational values and goals are likely to generate judgements of a more ethical nature than firms with weaker organisational values.

*The influence of organisational values on personal values.* It has been argued that organisational and personal values are interrelated. The possibility of organisational support for ethics having a positive impact on moral reasoning of individuals has been supported in various studies. There are no studies directly examining the impact of organisational values on personal values. However, the interrelationship between the two constructs has been demonstrated (see

section 2.5.6.) and is an important theme in the literature on organisational socialisation. According to Schein (1988, p.54), socialisation is the process by which a new recruit “learns the value system” of the organisation he/she is joining. As discussed in section 3.4.3, the process is said to be particularly strong in the first few years of graduate accountancy training. The tendency of accounting firms’ values to be perpetuated through successive generations of accountants is itself a testament to the efficacy of the socialisation process and is consistent with Ponemon’s ethical selection-socialisation theory (Ponemon, 1992), also discussed in chapter 3. A general conclusion from a review of the literature on socialisation in the accountancy profession is that through socialisation, new recruits are initiated into the values of accounting firms. Many socialisation researchers assert that the outcome of socialisation is more than a mere awareness of organisational values, but that it involves adaptation of individuals’ personal values to bring them in line with organisational values. The following dynamic hypothesis is therefore suggested:

**H<sup>D</sup>2:** Personal and organisational values become interrelated during the initial years of organisational life.

One of the implications of the organisational socialisation literature is that the effectiveness of socialisation is strongly linked to the strength of culture and values which the organisation is seeking to perpetuate. Further, the strength and nature of organisational values may vary between firms, and therefore may influence the personal values of members of the sample in different ways. It seems relatively uncontroversial, therefore, to suggest the following:

**H<sup>C</sup>6a:** An individual’s personal strength of conviction about values is positively related to perceived strength of conviction on the part of the organisation about its values and goals.

**H<sup>C</sup>6b:** Self-orientated values are strengthened by perceptions of strong organisational values relating to commercial success.

**H<sup>C</sup>6c:** Other-orientated values will be strengthened by strongly held service-type organisational values.



Chapter 2 also addressed the possibility of conflict between personal and organisational values. Mason and Mudrack (1997) concluded that higher moral reasoners will experience greater conflict at work between their own personal principles and those demanded by an organisation than lower moral reasoners. Although their study uses DIT scores, it is interesting to apply the same reasoning in the current study in the context of values as follows:

**H<sup>C</sup>7:** Individuals with strongly held personal values experience greater conflict between organisational and personal considerations in ethical judgement.

The model posits that the extent to which professional and/or firms' values influence ethical judgements is affected first by individuals' awareness of the values and second, by their motivation to adopt or conform to these sets of values. These two categories of moderating variables are dealt with next.

#### **4.3.3.2. Moderating variables: Awareness**

*Socialisation.* Through the processes of socialisation, organisational values can have an increasing impact on behaviour. This may be through an individual's external knowledge of organisational standards or through an internalisation of those standards such that they become part of the individual's own values (see H<sup>C</sup>6 and H<sup>D</sup>5). Socialisation is included in the model as a variable which moderates the relationship between organisational values and ethical judgement. In other words, socialisation may have a contingent effect on the relationship. It may allow distinctions to be drawn in two ways, first, cross-sectionally between subjects who are more actively socialised into strong organisational cultures e.g. in large firms perhaps, and second, longitudinally, from entry of the graduates through the intense socialisation stage (Aranya and Ferris, 1984; Lampe and Finn, 1992) of the first few years of work. Lampe and Finn (1992) conclude that effects on ethical decision making of socialisation occur in the first two years following entry into the profession. Coffey (1994) argues that the process of adopting organisational values necessary for survival and success in a particular organisational context is an important result of the socialisation process. In terms of ethics, the likely result is the adoption of the organisational value that a "whiter than white" approach to ethical considerations is automatically expected, even taken for granted in the accountancy profession (Schlacter, 1990) if individuals are to be successful.

Based on the notion that socialisation is the main process by which organisational values influence ethical judgement, the following hypotheses are raised:

**H<sup>C</sup>8:** The influence of organisational values over ethical judgement is greater for graduate accountants who are subject to intense socialisation processes than for those who are not.

**H<sup>D</sup>3:** Organisational values will become increasingly influential on graduate trainees' ethical judgement over the training contract period.

*Training.* As discussed in chapter 3, one of the defining features of a profession is a code of professional ethics. The UK accountancy profession is no exception. The existence of a code alone, however, cannot be relied upon to change individuals' ethical conduct. Discussing general moral codes, Schlacter (1990) comments that the more general and abstract the code, the less influential it is likely to be because it is remote from everyday life and work and can be interpreted to suit differing circumstances. He argues that a code can only have a profound effect on behaviour if it is individually internalised. Studies of ethics training support the notion that training can be a way of making codes effective e.g. Jones and Hildebeitel (1995) provide evidence that ethics training can improve ethical decision making of accountants. In the UK, training received by graduate accountants can take a number of forms. It can be specifically directed at passing the professional exams, usually provided by firms or external tutors, or it can be provided by the firms themselves. Firm-provided training can be exam-related but is more often concerned with improving the performance of trainees in their fee-earning, day-to-day work as accountants or auditors. Although a significant proportion of training implicitly relies upon notions of professional ethics and "professionalism", only a very small proportion of training specifically examines ethics and therefore has any potential to develop trainees' abilities to resolve ethical dilemmas. Furthermore, literature reviewed in chapter 3 is critical of existing ethics training (which tends to form part of professional examination preparation) for generating a rule-following approach by reliance on surface rather than deep learning strategies (e.g. Gray et al., 1994; Fleming 1996). This literature suggests that improvement in trainees' ethical abilities, if there is any, will derive from ethics training provided outside the professional examination context. The model for this study therefore posits that non-exam related ethical training is an awareness variable which moderates the relationship between organisational values and ethical judgement in the following manner:

**H<sup>C</sup>9:** Ethical judgement is positively related to the extent of non-exam-related ethics training.

#### **4.3.3.3. Moderating variables: Motivation**

*Commitment.* The commitment of an individual to an organisation can be characterised as a strong belief in an organisation's goals and values and a strong desire to maintain membership of the organisation (Mowday et al., 1979). Literature reviewed in chapter 3 on professional socialisation in general (e.g. Schein, 1988), and of accountants in particular (e.g. Aranya et al., 1982; Coffey, 1993; Shaub et al., 1993), proposes that one of the key features of the initial years of professional training is an increase in the level of commitment of new recruits from the time they join throughout the intensive socialisation period. As background to the inclusion of commitment as a variable which moderates the impact of organisational values on ethical judgement, it is important first to examine whether commitment was found to increase in the current study:

**H<sup>D</sup>4:** Organisational commitment of graduate accountants increases over the training period.

There are various arguments for including commitment as a moderating variable. First, it is well-established that referent others in an organisation can influence ethical decision making (Ford and Richardson, 1994; Trevino, 1986). The extent to which top management are seen as referent others can be assessed by measuring organisational commitment. Similarly, the extent to which professional values are seen as important can be assessed by measuring professional commitment. Second, an important aspect of professional commitment is said to be acceptance of the goals and values of the profession (Aranya et al., 1981; Aranya and Ferris, 1984). It has been suggested that if an auditor is committed to values of the profession or organisation, he/she is more likely to be sensitive to its ethical values, and to situations which may run counter to those values (Shaub et al., 1993). The third reason for suggesting a link between commitment and ethical judgement is based on the notion that another aspect of commitment, desire to maintain organisational membership (Aranya et al., 1981; Aranya and Ferris, 1984), is likely to discourage highly committed individuals from engaging in ethically dubious practices. Thus we might expect to observe two relationships. The first is a positive relationship between

the extent of organisational commitment<sup>1</sup> (specifically the change in organisational commitment over the training period) and the influence that organisational values have on personal values. So, where commitment has increased over the training period, one would expect to see that organisational values have a greater influence on personal values than if commitment had fallen over the period. In hypothesis form, this relationship is expressed as follows:

**H<sup>D</sup>5:** The influence of organisational values on personal values at the end of the formal training period is moderated by the extent and direction of change in organisational commitment.

Second, one would expect to see a relationship between levels of organisational commitment and the application of organisational values in ethical judgement situations: Where commitment is high, we might expect to find that individuals rank the organisation's values, including those relevant to ethics, highly in their own decision making. It is, therefore, hypothesised that levels of commitment will moderate the relationship between organisational values and ethical judgement:

**H<sup>C</sup>10:** The adoption of organisational values in ethical judgement is positively related to commitment to that organisation.

*Reinforcement* Reinforcement theory suggests that an organisation can significantly influence individuals' ethical behaviour by specific rewards and punishments for ethical/unethical behaviour (Trevino et al., 1985; Trevino, 1986; Hegarty and Sims, 1978). Studies have shown that reward for ethical behaviour and/or punishment for unethical behaviour can improve ethical decision making at the individual level. Trevino (1986) includes reinforcement as a moderating variable between CMD and ethical behaviour. However, the model for this study posits that reinforcement can also have an impact on the judgement stage of ethical decision

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<sup>1</sup> Although the original literature on organisational commitment in the accounting profession (Sorensen and Sorensen, 1974) suggested that there was a tension between firm and professional commitment based on the notion that organisational and professional goals were substantially different, subsequent studies (Aranya and Ferris, 1984; Lachman and Aranya, 1986, Shaub et al., 1993) have found high levels of organisational and professional commitment amongst professional accountants and have suggested that there is actually a high degree of goal congruence between accounting firms and the accounting profession. Based on this notion of goal congruence, which fits in with the discussion of organisational and professional goals earlier in this chapter, the argument in the current paragraph relating professional commitment to ethical awareness and sensitivity also applies to organisational commitment.

making itself. The reasoning behind this is that judgement takes place in the context of what would normally be considered acceptable in a particular organisational context. Reinforcement contingencies play an important role in defining what is normally accepted. Reinforcement is included in the model as a motivator to adopt organisational values in ethical judgement. Several writers have discussed the particularly negative sanction environment which exists in the accountancy profession. In the context of ethics, this emphasis on “the downside” means that ethical shortcomings tend to receive a great deal of attention whilst principled behaviour receives little or none (Schlacter, 1990). Most accountants and their employers would therefore expect high ethical standards of themselves and would expect any ethical lapses to be punished firmly.

**H<sup>C</sup>11:** Professional accountants’ ethical judgement will be significantly influenced by reinforcement contingencies, particularly negative ones.

*Peer group influence.* Studies have found that peer groups can act as a significant referent other. Zey-Ferrell et al, (1979) found that influence of peers beliefs about unethical behaviour was more significant than the beliefs of top management. Ford and Richardson (1994) conclude that “the direct influence of the person’s peers increases as the intensity and frequency of contact ... increases” (p. 212). Trevino (1986) notes that peer group influence can be particularly strong in the absence of other guidance, for example, if organisational values are weak. In the context of accountancy, Coffey’s (1994a) work suggests that trainee accountants regard membership of the year group of peers as particularly important. However, as time passes, contact with the peer group typically becomes more limited. In fact, Coffey (1994a) concluded that despite the success of the group influence as the site for intense socialisation of graduate accountants (discussed in sections 3.4.3 and 5.4.3.5), its declining influence after the initial years could be attributed to the fact that the group was the centre of competition as well as cooperation. Ultimately, factors and strategies relating to the individual’s success within the firm were kept at the level of the individual rather than the group - this effectively weakened the influence of peers over time. The following hypotheses are therefore raised:

**H<sup>C</sup>12:** The opinions of peers will be significant in ethical judgement, especially where other behavioural cues such as organisational values are weak.

**H<sup>D</sup>6:** The opinions of peers will become less influential with increasing seniority within the firm.

*Other pressures.* Research has suggested that situational, including performance pressures can have a negative effect on ethical behaviour (Posner and Schmidt, 1987; Rest, 1984; Staw and Szwajkowski, 1975). The model posits that such pressures can act as disincentives to adopt organisational values in ethical decision making. Trevino's (1986) research hypothesis is therefore adapted for use here:

**H<sup>C</sup>13:** Individuals' ethical judgement will be influenced negatively by external pressures of time, scarce resources, and competition.

#### **4.4 Summary and conclusion**

Consideration of the literature surrounding ethical decision making has led to the development of a series of cross-sectional and dynamic research hypotheses concerning the influences on ethical judgement of various individual and situational factors. Tables 4.1 and 4.2 provide a summary of the hypotheses. Some of the hypotheses have clear theoretical and empirical derivations, while many others have been discussed in theoretical studies and have anecdotal evidence to support them, but need rigorous empirical validation. Some have been derived from the theoretical extension in this thesis of the Jones model to incorporate a values basis and dynamic issues while others are derived directly from other literature e.g. the hypotheses dealing with gender and locus of control. All the hypotheses are to be tested empirically at least once using data collected in this three year study. The aim is to try and build up a picture of the factors which influence the ethical decision making of graduate accountants as they progress through the training process. In chapters 7 and 8, the results of the study will be presented and discussed in terms of whether the data support each of the hypotheses.

The next chapter discusses general methodological issues and it outlines and justifies the methodology chosen for the study. It also provides details on the development and use of the research instrument and on sampling issues.

*Table 4.1: Summary of cross-sectional research hypotheses*

<b>H<sup>C</sup><sub>1</sub></b>	Individuals with strongly held personal values will make judgements of a more ethical nature in situations which involve ethical issues than individuals with weakly held personal values.
<b>H<sup>C</sup><sub>2</sub></b>	Females will exhibit higher levels of ethical judgement than males.
<b>H<sup>C</sup><sub>3a</sub></b>	Subjects with internal locus of control are likely to make ethical judgements of a more ethical nature than those with external locus of control
<b>H<sup>C</sup><sub>3b</sub></b>	Subjects with internal locus of control are likely to experience more conflict between personal and organisational aspects of ethical judgement than subjects with external locus of control
<b>H<sup>C</sup><sub>3c</sub></b>	Locus of control interacts with personal values to affect ethical behaviour in the following manner: Individuals with internal locus of control orientation are more likely to have strong personal values (and therefore higher levels of ethical judgement - H <sup>C</sup> <sub>1</sub> ) than external individuals.
<b>H<sup>C</sup><sub>4</sub></b>	Ethical judgement is positively related to firms' support of ethics.
<b>H<sup>C</sup><sub>5</sub></b>	Firms which have strong organisational values and goals are likely to generate judgements of a more ethical nature than firms with weaker organisational values.
<b>H<sup>C</sup><sub>6a</sub></b>	An individual's personal strength of conviction about values is positively related to perceived strength of conviction on the part of the organisation about its values and goals.
<b>H<sup>C</sup><sub>6b</sub></b>	Self-orientated values are strengthened by perceptions of strong organisational values relating to commercial success.
<b>H<sup>C</sup><sub>6c</sub></b>	Other-orientated values will be strengthened by strongly held service-type organisational values.
<b>H<sup>C</sup><sub>7</sub></b>	Individuals with strongly held personal values experience greater conflict between organisational and personal considerations in ethical judgement.
<b>H<sup>C</sup><sub>8</sub></b>	The influence of organisational values over ethical judgement is greater for graduate accountants who are subject to intense socialisation processes than for those who are not.
<b>H<sup>C</sup><sub>9</sub></b>	Ethical judgement is positively related to the extent of non-exam-related ethics training.
<b>H<sup>C</sup><sub>10</sub></b>	The adoption of organisational values in ethical judgement is positively related to commitment to that organisation.
<b>H<sup>C</sup><sub>11</sub></b>	Professional accountants' ethical judgement will be significantly influenced by reinforcement contingencies, particularly negative ones.
<b>H<sup>C</sup><sub>12</sub></b>	The opinions of peers will be significant in ethical judgement, especially where other behavioural cues such as organisational values are weak
<b>H<sup>C</sup><sub>13</sub></b>	Individuals' ethical judgement will be influenced negatively by external pressures of time, scarce resources, and competition.

*Table 4.2: Summary of dynamic research hypotheses*

<b>H<sup>D</sup>1</b>	Gender differences in ethical judgement will become less apparent over time as trainees are socialised into organisationally determined norms and roles.
<b>H<sup>D</sup>2</b>	Personal and organisational values become interrelated during the initial years of organisational life.
<b>H<sup>D</sup>3</b>	Organisational values will become increasingly influential on graduate trainees' ethical judgement over the training contract period.
<b>H<sup>D</sup>4</b>	Organisational commitment of graduate accountants increases over the training period.
<b>H<sup>D</sup>5</b>	The influence of organisational values on personal values at the end of the formal training period is moderated by the extent and direction of change in organisational commitment.
<b>H<sup>D</sup>6</b>	The opinions of peers will become less influential with increasing seniority within the firm.



## Chapter 5: Methodology

### 5.1 Introduction

The last chapter developed a model of ethical judgement from existing literature and raised testable research hypotheses from it. The purpose of this chapter is to begin the process of explaining how they are to be tested by examining fundamental and detailed methodological issues. Methodology can be described as “the philosophical study of scientific method”<sup>1</sup>. It is concerned with the philosophical debate which surrounds the choice of method. This is largely an epistemological debate which examines the nature of truth and knowledge. Any research study requires the researcher to make methodological decisions at its inception which impact on the conduct of the stages of the research process. Ethical decision making has been investigated according to a number of different methodologies, some of which were outlined in chapters 2 and 3 of this thesis. This chapter will outline the alternative methodologies, offering criteria for their assessment, and will attempt to justify the choices made in this study.

Methodology is also concerned with the soundness and validity of the methods used at each stage in the research process. In their assessment of methodology in business ethics research, Randall and Gibson (1990, p. 469) conclude:

“Research in any area involves trade-offs between the desirable and the practical (Bailey, 1982). Due to difficulties presented by such a sensitive research topic as business ethics, researchers may never be able to approach the study of business ethics with an “ideal” scientific research process. However, with complete reporting of methodological decisions .. a solid methodological foundation can be established...”.

The aim of this chapter is to establish just such a solid foundation.

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<sup>1</sup> Methodology is thus described in *The Oxford Companion to Philosophy*, ed. T. Honderich, Oxford University Press, New York, 1995, p.565.

Section 5.2 outlines the philosophical issues involved in choosing between alternative methodologies and describes and justifies the approach taken in this study. Section 5.3 discusses various theoretical perspectives on the use and design of survey questionnaires, the method chosen to collect data for this thesis. In order to explain how the questionnaires were designed, it is necessary to discuss conceptualisation and operationalisation. Section 5.4 does this first by defining the meaning of some of the key constructs included in the model which had not already been defined in chapter 4, then describing the various characteristics of the questionnaire format adopted before detailing how the constructs in the hypotheses were made operational using various measurement scales. The final part of section 5.4 discusses each of the three questionnaires used, explaining the timing of the measures included at different stages. In section 5.5, sampling issues are addressed. The selection of the sampling frame and of the actual sample are discussed and assessed vis a vis their appropriateness for the testing of the research hypotheses. Finally, in section 5.6, conclusions are drawn.

## **5.2 The methodology debate**

The approach taken by a researcher attempting to address a set of research questions will crucially depend on ontological and epistemological considerations, that is, on one's view of the nature of the reality being investigated and on how we should best come to know that reality. This is the realm of metatheoretical frameworks or paradigms (Kuhn, 1962). This section will address two paradigmatic conflicts or debates relevant to business ethics research. The first is the distinction *within* the social sciences discipline between the objective/positivist paradigm and the subjective/phenomenological paradigm. The second concerns the debate about contributions to business ethics from the two very different disciplines of empirical social science (psychology, sociology, anthropology and organisational science) and normative ethical theory (philosophy and theology). These paradigms have different purposes and underlying assumptions, often about the nature of human agency<sup>1</sup> (Trevino and Weaver, 1994), different methods of theory building and evaluation, and different language. These different paradigms represent opposing ontological positions on the conception of reality. If, as is sometimes the case among

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<sup>1</sup> According to Trevino and Weaver (1994), the human agency assumption concerns the amount of autonomy and responsibility the individual has for his/her actions. They state: "The philosopher believes that ethically significant action is normally autonomous while the social scientist invokes a more deterministic multiple influences perspective" (1994, p. 118)

organisational researchers, a strong view is taken of the role of these metatheoretical frameworks, then the paradigms can be seen as incommensurable (e.g. Burrell and Morgan, 1979), that is, there are insurmountable problems in communication and understanding between them.

The first debate to be covered is between the positivist and the phenomenological positions within the social sciences. The positivist view regards the world essentially as a knowable entity, guided by universal laws and relationships which can be discovered by research. The focus of this view is on observing and describing patterns and relationships in a "value-free" manner - research is an experimental or quasi-experimental activity in which theories or models of reality are tested against "real" observations which validate or falsify the theory. The positivist paradigm typically employs quantitative empirical analysis to process data and discern patterns, although personal interviews can also be used in a positivist manner (for example, using protocol analysis - see Liedtka, 1992, for discussion). At the other extreme, the phenomenological paradigm denies that the world is a knowable entity, asserting instead that it is largely socially constructed. There is no truth to observe objectively - reality is subjective and therefore accessible only to individuals in particular contexts. The role of the social science researcher under this paradigm is typically to conduct in-depth investigation of meaning and metaphor in social situations with the aim of understanding the dynamics of individual cases as fully as possible. Theory constructs are developed "from the ground up" (Brigley, 1995) i.e. they are grounded in particular contexts and are developed from there. As a result, no replicability or comparability is generally claimed. The most frequently used research methods are those which facilitate the generation of in-depth, qualitative data such as case studies, focus groups and personal interviews.

Business ethics research has been dominated by the positivist paradigm and by empirical research methods (Bain, 1995; Randall and Gibson, 1990; Trevino and Weaver, 1994). For the most part, the suitability of the empirical, positivist approach appears to have been widely accepted, especially in the US. Even in the US, however, there are a small number of studies which assert that there are alternatives to empirical business ethics which are better able to deal with the complexity inherent in the subject (e.g. Liedtka, 1992). In the UK, the debate about the suitability of empirical approaches has received more attention. A number of business ethics researchers have been highly critical of the positivist methodology in general, and of survey-based research in particular (e.g. Bain, 1995; Brigley, 1995; Crane, 1999).

Instead, these authors have typically advocated the use of ethnographic methods, interviews, focus groups, etc. It is important to examine these criticisms in relation to the legitimacy of the choice of a largely survey-based, quantitative methodology for this study.

Most of the studies critical of the use of survey-based methodologies go to considerable lengths to highlight methodological weaknesses in the literature e.g. reliance on self-reporting, convenience sampling, low response rates, etc. These criticisms are also found in reviews of the state of research in business ethics by researchers themselves involved in survey-based research such as Randall and Gibson (1991) and Robertson (1993). This type of criticism does not, however, represent a rejection of positivist methodology. In fact, it can be seen as a critical attempt to improve the reliability and validity of such work. Further attention will be given to the methodological weaknesses and failures later in this section and elsewhere in this thesis. More fundamentally, however, advocates of alternative approaches have questioned whether survey-based research can ever be suitable for business ethics investigations. The crucial concern is with surveys which typically include scenarios, statements or questions about ethical problems. These are said to be inherently vague and general and therefore not “fully representative of the detail and complexity of everyday decisions which confront social actors in business” (Brigley, 1995, p. 219). This lack of ability of scenarios, etc. to deal with complexity emerges as the most common critical theme in attacks on quantitative approaches in business ethics (Bain, 1995; Brigley, 1995; Liedtka, 1992; Vyakaram, 1995). Justifying this criticism, Brigley highlights a number of problems with scenarios. First, they are usually used in conjunction with “forced-choice” responses reflecting different possible courses of action in response to the scenario which, Brigley argues, neglect the context in which the decision is made and which gives meaning to the decision. The data generated by these responses are unable, for example, to reveal a variety of meanings attached to the same response. Second, Brigley claims that the use of Likert type response categories implicitly involves assuming, mistakenly, that there is a standard ethical profile against which people can be measured. The Likert scale is therefore used in some sort of quest for a ‘global measure’ (Tsalikis and Fritzsche, 1989). Again, it is argued that this ignores contextuality. Third, Brigley is sceptical of empirical researchers’ attempts to include more contextual details in scenarios leading them to claim that the scenarios are ‘meaningful’ to subjects. Rarely, he argues, are these claims defended or verified - the fact that verification is impossible without reference to research into systems of belief, intention and decision *in the specific context* renders such claims meaningless.

Further criticism of the empirical approach emerges in connection with the suitability of particular methodologies for theory building. Liedtka (1992) and Bain (1995) argue that business ethics is still a relatively new field and is still at the theory-building stage. In this case, personal interviews are necessarily the most appropriate tool to explore the organisational context and its links to the processes of ethical decision making. In Brigley's terms, theory needs to be developed through induction because deduction cannot allow research questions to be "framed in the language of the social reality under investigation" (1995, p. 221). He therefore advocates a grounded approach to theory development.

It is apparent to this researcher that there is a good deal of validity in the criticisms of the empirical approach and moreover, many benefits in adopting an ethnographic approach to business ethics research. The main advantages of the latter are that it allows the subjects of the study to speak for themselves, revealing the character of the context in which ethical decision making occurs and that it avoids the potential pressure in empiricism to make sweeping generalisations from results which may not always be methodologically sound enough to justify it. Nevertheless, some of the negative claims made about survey-based research need to be refuted. It is certainly the case that empirical research which is inadequately framed, theorised and operationalised can fall into the traps suggested in particular by Brigley. It is this researcher's view, however, that if a quantitative study is well-designed, it can answer most of the criticisms. For example, it can be designed to consider contextual factors. Sensitivity to contextual variation is a matter of degrees: Whilst survey-based methods can never be as sensitive as ethnographic methods, that is not to say that they are completely insensitive. A good piece of empirical research does not have to seek a 'global measure' of ethicality. Rather it can use response scales which allow multidimensionality and actually facilitate the investigation of contextuality using multivariate statistical analysis. Further, a piece of research which is fundamentally grounded in one methodology can still draw on complementary theories and methodologies to help capture greater complexity. This type of approach has been advocated in other fields of organisational research such as agency theory. For example, Eisenhardt (1989) argues that the use of different but complementary theoretical perspectives in agency theory research, which in her view tends to represent only a partial exploration of organisational reality, can facilitate the exploration of complexity still *within* the agency theory framework. Metatheoretical justification of such an approach can also be seen in Weaver and Gioia's

(1994) appeal for the use of “Giddens’ structurationist metatheory [e.g. 1976] as a means to honour both calls for a broader, more unified perspective [in organisation studies] *and* demands for metatheoretical theoretical pluralism, without resorting to the self-stultifying incommensurability thesis”. In the current study, some of the perspectives of phenomenological approaches to business ethics are incorporated into the research design to complement the primarily empirical approach. Thus, whilst it is self-evident that no measurement scale can uncover multiple meanings to a single response, this weakness can be at least partially mitigated, for example, by the use of small numbers of interviews at the pilot stage and running along side the research project to discover typical reasoning behind responses.

Vyakarnam (1995) and others have highlighted the crucial need to fit the right methodology to the research question. Pragmatically speaking, however, the role of the researcher in the research cannot be ignored. Integrity would be sacrificed if, for example, a phenomenologist were to adopt a positivist methodology for a particular project. These two imperatives, the methodology-fits-research question and the methodology-fits-researcher, must be balanced. Further, although, the incommensurability thesis is commonplace, there are a number of organisational researchers who do not believe that metatheoretical differences between paradigms need necessarily mean systematic inability to communicate (Kuhn, 1990; Robertson, 1993; Weaver and Gioia, 1994; Weaver and Trevino, 1994; Werhane, 1994). Under this assumption, it is conceivable that ethnographic inquiry can, for instance, reveal the importance of understanding context-specificity and the need to let subjects “speak for themselves”, which may guide the design of an empirical research study. The two methodologies remain conceptually distinct in terms of principles, assumptions and methods, yet they can communicate on such things as the research agenda and the applicability of theory since they are both concerned with ethical business behaviour.

Following the reasoning outlined in the previous paragraph, the approach taken to the choice of paradigm and research methodology for the current study is as follows: The study is located primarily in the positivist, empirical paradigm, recognising that the researcher has a background and definite leaning in this direction. Despite the criticisms of qualitative scholars, the researcher takes the mainstream approach, founded on the precedent from the majority of business ethics research studies, that the positivist approach is not inherently unsuitable for enquiries into ethical decision making. This position, however, accepts and

recognises the criticisms of empiricism in business ethics and has sought interparadigmatic guidance on the conduct of the study. For instance, a small number of in-depth interviews with trainees were conducted at the same time as the questionnaires were sent out to the main sample. The aim of the interviews was to explore the same issues as the questionnaire covered, but in a manner which allowed for the discovery of language, meaning and contextuality. Data from the interviews are included in chapters 7 and 8. Another example of how insights from the qualitative research tradition were utilised was in the choice of scales to cover a large number of context-specific factors and multidimensional categories in the scenario responses. The method of using exploratory factor analysis to examine the scenario responses also minimised the chance that the data would be “forced to tell a particular story”. Further, the researcher also believes that much of the fashionable criticism of empiricism is concerned with the quality of detailed application of the methodology, rather than of the metatheoretical framework itself. Careful attention to the ways in which critics have suggested that methodology in business ethics research could be improved at every stage of the research project may be able to answer many, although certainly not all, of the criticisms levelled at empiricism. Studies discussing possible improvements in empirical methodology are considered next.

There are a number of avenues that have been suggested for empirical business ethics. The one which has sparked the most debate concerns the relationship of *empirical*, social science-based business ethics with *normative* business ethics which has its academic home in philosophy and liberal arts departments (Trevino and Weaver, 1994). A number of writers have claimed that integration of the two approaches is the way for business ethics research to advance ethical behaviour in business (Collier, 1995; Kahn, 1990; Robertson, 1993; Victor and Stephens, 1994; Weaver and Trevino, 1994). This debate will be summarised first, before continuing to discuss other guidelines for the improvement of empirical methodology which have been suggested in the literature.

The relationship between normative and empirical approaches to business ethics are discussed in terms ranging from friendly debate to conflict. The relationship between the two tends, however, to be characterised by confusion, lack of communication or understanding. Although a number of writers had highlighted the existence of the two approaches (e.g. Fleming, 1987; Kahn, 1990), Trevino and Weaver (1994) were the first to

**Table 5.1: Trevino and Weaver's (1994) normative and empirical approaches to studying business ethics**

<b>Category</b>	<b>Normative approach</b>	<b>Empirical approach</b>
1. Academic home	Philosophy, theology, liberal arts	Management Social sciences
2. Language: Definition of ethical behaviour/action	Evaluative Action that is right, just and fair	Descriptive Ethical choices/decisions - right or wrong
3. Underlying assumption: Human moral agency	Autonomy Responsibility	More deterministic Reciprocal causation
4. Theory purpose, scope and application	Prescription Abstract analysis and critique	Explanation and prediction "Concrete" and measurable
5. Theory evaluation	Reflection on business practice Rational critique of moral judgement	Empirical study of practice Ability to explain, predict and solve business problems

systematically examine the causes of this state of affairs. Their study is summarised here because it deals with the metatheoretical and methodological differences between normative and empirical<sup>1</sup> business ethics. They delineate the differences according to five categories. Trevino and Weaver's summary table is reproduced in Table 5.1. The first is "academic home". The normative approach comes from an academic background which focuses on what ought to be i.e. it is value-driven whereas the empirical approach tends to be based in the functionalist paradigm in which researchers are concerned with what is, rather than what ought to be. Further, being value-free and objective is a necessity. According to Robertson (1993, p. 586):

"Empiricists do not specify how people ought to act, but instead specify the conditions under which individuals are likely to act in particular ways."

In empiricism, formalised methodological procedures concerning hypothesis testing and quantitative analysis are well-established, whereas with normative analysis, formalised methodologies are rare. The second category is language. Trevino and Weaver highlight a fundamentally different understanding, for instance, of "ethical behaviour" in the two

<sup>1</sup> Trevino and Weaver (1994) are essentially comparing the social science and philosophy bases of business ethics. They note that whilst social science cannot be characterised unidimensionally as empirical, due to the existence of other methodologies within the discipline, only the empirical approach is considered in their account to simplify the discussion, as it is the dominant paradigm.



approaches. Normatively, ethical behaviour refers to morally proper behaviour. To an empiricist, however, ethical behaviour tends to mean any behaviour of individuals facing ethical decisions - i.e. the term is used descriptively. These type of differences lead to communication difficulties between the disciplines. The third of Trevino and Weaver's categories represents a fundamental ontological matter concerning the nature of human moral agency, that is, the extent to which a moral actor is responsible for his/her actions and choices. Trevino and Weaver assert that the fundamental assumption of the normative approach is that morally significant acts are performed with responsibility and autonomy. According to this assumption the search for causal conditions associated with ethical or unethical behaviour may be misplaced. Although there is a wide range of beliefs amongst empiricists ranging from libertarians ( - people make their own choices, constrained by ability or external barriers) to determinists ( - all behaviour is externally determined by social/contextual influences), Trevino and Weaver suggest that the majority of social scientists would take a middle position on the spectrum, asserting basic individual responsibility but acknowledging the importance of social factors. If this assumption is correct, then social scientists would tend to see enquiry into causal conditions as necessary.

The fourth difference concerns the purpose of theory under the two disciplines. Social science theory provides a conceptual basis for examining regularities and relationships which, through hypothesis testing, can lead to generalisations about organisational behaviour - these can be used to explain and predict. The purpose of normative theory, on the other hand, is to provide the tools by which "the real" can be criticised "by reference to the ideal". Finally, there are differences between the disciplines on the grounds for establishing and evaluating theory. Whereas empirically-based theory is built incrementally and deductively based on logic and existing literature, "the method of (normative) ethical theory commonly involves achieving a reflective equilibrium between theoretical constructions and considered moral judgements" (Trevino and Weaver, 1994; Rawls, 1971). The five categories underline the fundamental differences between the two approaches. Yet it is common to encounter calls for the two fields to be integrated. A number of authors have discussed the theoretical possibility of this happening and the levels at which such integration might occur. These are reviewed next.

Weaver and Trevino (1994) set out three possible levels of integration of the normative and empirical approaches to business ethics. The first they term "parallelism" in which there is

actually no integration. The two fields are kept separate out of conceptual necessity arising from the assumption of the strong form of paradigmatic incommensurability (discussed earlier in this section). It is rare to find business ethics researchers who support the parallelist's position. From the empiricist's perspective, this is probably because it would require that all normative issues in research be ignored. In practice, it is widely agreed (e.g. Goodpaster, 1984; Robertson, 1993; Victor and Stephens, 1994; Weaver and Trevino, 1994) that this is impossible, because, at the very least, there are normative ideas guiding the choice of research question, the consideration of its worth to society and the interpretation of results (Forsyth and Pope, 1984; Robertson, 1993). Weaver and Trevino say that parallelist empirical enquiry actually hides normative issues rather than avoiding them. Robertson (1993) says that empirical research must make these implicit normative issues explicit by stating its assumptions or normative basis for determining what constitutes ethical behaviour.

The second level of integration is characterised by a symbiotic relationship in which each discipline takes cues and ideas from the other regarding the research agenda and the applicability of theory, but they remain self-contained in terms of theories, assumptions and methodologies. This approach maintains that communication between the disciplines is pragmatically valuable and essential to both. This is equivalent to Robertson's (1993) two-stage research process whereby normative research establishes a basis for evaluating right and wrong in a particular business setting, which empirical research states as given then proceeds to explain/describe the conditions under which such behaviour might occur. The most prominent supporter of the symbiotic position is the philosopher Donaldson (1994). He argues that the cores of the two disciplines must be kept separate because the logic of prescription is fundamentally different to that of description.

The third and "highest" level of integration is hybridisation or theoretical integration i.e. the creation of new theory by "comingling" the existing theoretical cores. At the least, this involves conceptual importation where one field brings concepts from the other into its theories. For Robertson (1993), this type of integration demands research that investigates the ethical dimensions of business behaviour (normative research) *at the same time* that it examines the organisational conditions under which the behaviour occurs (empirical research). Many other business ethics researchers support some version of theoretical integration position (Collier, 1995; Goodpaster, 1984; Victor and Stephens, 1994; Werhane, 1994). At a metatheoretical level, Victor and Stephens (1994) reject the assumptions of the

positivist paradigm that facts are distinct from values and that the social scientist's search for the objective truth, independent of value judgements, has no normative implications. They claim that "there is no absolute demarcation between facts and values, all science entails value-laden decisions about what to study, and social reality is inarguably open to multiple interpretations" (Victor and Stephens, 1994, p. 148). To illustrate this, they discuss several examples of seminal theoretical work in which normative and empirical research has been integrated such as Kohlberg's psychologically descriptive theory of CMD (1969) which is normatively grounded in Rawls'(1971) theory of the construct of justice. According to Werhane (1994, pp. 178-179), however, the most important aspect of the debate about the potential for integration of the normative and empirical bases of business ethics is the very fact that it points to the differences and similarities of the two approaches:

"Thus we have made progress to integration - not of the normative and empirical - but progress in recognising the importance of each, how each is dependent on the other, and how neither is singularly The Approach to business ethics. It is on this level of analysis that philosophers and social scientists can communicate with each other and enrich each others points of view" since "it is on this level that we become self-conscious of the perspectives and presumptions that are the basis for the adoption of a particular methodology".

The notion of theoretical integration is supported in the current study. This has a number of theoretical and practical implications. First the researcher has a responsibility to make explicit the normative implications of her choice of the research topic. The researcher's interest in graduate accountancy training stems from personal experience of the training in the 80's. The study was motivated in part by a desire to reflect on, and make sense of, the ethical effects of the training experience. This experience included facing a number of difficult ethical situations coupled with the feeling that the context of accountancy training was not working in such a way as to produce the most ethical response. The normative implications of this are reasonably obvious - that the researcher is interested in whether the graduate accountancy training context (training plus organisational experience) has a negative (note the value judgement) effect on individuals' ethical reasoning and judgement.

The second implication of the assumption of the theoretical integration perspective in this thesis concerns the measurement and interpretation of ethical judgement. This research was

conducted primarily in the positivist, empirical paradigm<sup>1</sup> - a model and research hypotheses were developed and tested using quantitative analysis. In line with the empirical tradition, the model is concerned with describing how people make ethical judgements with reference to various individual and situational factors. In theory, at least, it might be possible to discuss the resulting data purely descriptively. To attempt to interpret them, however, or to draw out the implications of the research without any reference to what type of behaviour constitutes more or less ethical would risk rendering the study meaningless or amoral (Victor and Stephens, 1994). The researcher therefore agrees with Robertson (1993, p. 585) that "clarity about what is ethical is essential to empirical efforts which seek to understand conditions under which individuals behave ethically" and that a normative basis for determining right and wrong is needed. According to Robertson, there are two possible ways of doing this. First, in the two-stage approach, normative analysis establishes what is right or wrong which then feeds as a "given" into empirical analysis. The problem with this approach is that there is no room for ethical "grey areas" or conflict situations, for it requires a black-or-white-style judgement of ethicality. This research is interested in situations where it would be impossible to reach agreement from a normative perspective on what was right or wrong because of the nature of the scenarios chosen. One could rehearse the standard philosophical positions in the context of the scenarios, but would end up with a series of different judgements based on a series of different rationales. In short, such normative analysis would be likely to prove inconclusive. The second "method" of integration is to attempt to identify the ethical dimensions of the scenarios at the same time as investigating the contextual influences. This is a significant challenge. Nevertheless, it is the approach adopted in the thesis. It will be operationalised by using a multi-item philosophy-based response scale to the scenarios (see section 5.4.3.11).

Incorporating normative perspectives into empirical research is a major way the literature suggests that empirical methodology can be improved. There are, however, a number of other suggestions. As mentioned in chapter two in the context of the review of empirical literature, Randall and Gibson (1990) reviewed the general state of methodology in business ethics research and found it to be lacking in rigour. They raised criticisms concerning inadequacies in the use and development of theoretical frameworks and hypotheses, insufficient conceptualisation, lack of concern for reliability and validity of research

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<sup>1</sup> Although, as already discussed, the methodology chosen has also been informed by criticisms and suggestions made by business ethics researchers from the qualitative tradition.

instruments, high reliance on convenience sampling, lack of attention to low response rates and excessive reliance on very basic unsophisticated analytic techniques. Table 5.2 summarises the different stages in the research process which they discussed and the main criticisms they raised. Most of these criticisms are addressed in the individual sections of this thesis. The table therefore also includes the relevant section or chapter number where discussion can be found. This researcher has attempted to address all of Randall and Gibson's concerns and implement their suggestions. For example, when response rates are found to be low, the possibility of non-response bias is thoroughly investigated. In many areas, however, the comprehensive nature of this thesis meant that Randall and Gibson's criticisms were addressed by the general design of the study e.g. theoretic framework, hypothesis development, and use of multivariate analysis. Most of Robertson's (1993) suggestions for the future of the empirical business ethics research agenda have been reviewed in the research agenda discussion in chapter 1. Robertson does, however, make one suggestion specifically about methodology, namely that the methodological base of business ethics should be expanded to include methodologies other than surveys. Surveys were, nevertheless, used in this study. The next section attempts to justify this choice.

*Table 5.2: Randall and Gibson's criticisms of methodology in business ethics research*

Methodological decision	Main criticisms (not found in all, but in a significant number of studies)	Section or chapter number where discussed in this thesis
Theoretic framework	<ul style="list-style-type: none"> <li>• No theoretical framework specified</li> <li>• No or weak theory development</li> </ul>	Chapter 4
Hypothesis offered	<ul style="list-style-type: none"> <li>• No testable hypotheses specified</li> </ul>	Chapter 4
Conceptualisation	<ul style="list-style-type: none"> <li>• No definition of the meaning of theoretical constructs</li> </ul>	Section 5.4.1
Research design/method	e.g. Scenario vagueness and generality, use of close-ended questions in survey research. Insufficient details of results given in interview research.	Sections 5.3, 5.4.2.4, and 5.4.3.11
Operationalisation	Lack of concern for reliability or validity and limited pretesting.	5.4.3 and chapter 6. Piloting: 5.4.2.4
Study population	None	
Sample design	<ul style="list-style-type: none"> <li>• Too many convenience samples</li> <li>• Not enough random samples</li> <li>• Not enough careful consideration given to the issue of sample size</li> </ul>	Section 6.2
Response rate	Typically low response rates to surveys	6.2.4 and 6.3.2
Analytic techniques	Too much reliance on univariate and bivariate statistics	Chapters 7 and 8

### **5.3 The choice of data collection method**

Randall and Gibson (1991) report that survey research is the most common research design used in business ethics field, compared to alternatives such as “lab” experiments, simulations and interviews. Robertson (1993) has suggested that these alternatives should be used more frequently in order to broaden the methodological base of business ethics research. The selection of data collection method should ideally be determined with reference to appropriateness to the research question (Oppenheim, 1992). Often, however, researchers have to use methods which are feasible rather than ideal. The main reason for the choice of surveys for the current study over experimental or interview-based approaches was essentially a practical one. The benefit of surveys is their efficiency in collecting, and allowing the analysis of a large amount of information. An important focus of this research was the repeated collection of data from the same subjects at different times during training. This would have been prohibitively time-consuming, for the researcher and the subjects, to conduct such research with anything other than surveys. It is also highly unlikely that access to the subjects would have been granted on the basis, say, of a set of longitudinal interviews. Such access is not completely unprecedented - Coffey (1993) conducted qualitative research with a group of UK trainee accountants, but its duration was only one year and it was with only one firm. Given the choice of paradigm for this research, and the access limitations, surveys were considered the only practical method.

The primary source of data from questionnaires was, however, supplemented by data from a small group of longitudinal interviews with trainees. Four trainees from three offices not participating in the survey data collection part of the study were interviewed to coincide with the distribution of the main survey instrument. The three offices represented two “big 6” firms who were also participating in the survey work but at offices elsewhere in the country. The four interviewees were selected from a list of University of Nottingham graduates known to have joined the accountancy profession. Semi-structured interviews were used covering the same type of issues addressed by the survey work. The aim of the interviews was twofold. First, they provided a type of triangulation i.e. an alternative source of information and evidence on the phenomena covered by the questionnaire. This allowed some cross-checking between empirical findings from the survey data and the interview data, thereby adding further weight to the results of the study. Second, they allowed the researcher to explore, albeit to a limited extent, the more detailed meanings attached by a number of individuals to their experiences in different situations. This allowed some of the criticisms

raised in the earlier part of this chapter concerning the use of the empirical methodology in business ethics research to be partially addressed. The results of the interviews are presented in chapters 7 and 8. As interview data were intended for triangulation and to provide contextual detail and understanding, rather than as the main source of the thesis' results, they have not been presented as a separate chapter. Rather, they take the form of quotations which are used to illustrate empirical findings presented in the results chapters. They tend to be most relevant in the sections which present univariate and descriptive statistics.

## **5.4 Conceptualisation and operationalisation**

This section discusses how the questionnaires used in this study were designed. The design was a result of conceptualisation of hypothesis constructs and subsequent operationalisation of the constructs. Section 5.4.1 therefore gives a summary of the conceptualisation of some of the key theoretical constructs. This is followed by section 5.4.2 which provides general information about the characteristics of the questionnaires, including their length, format and the piloting procedures used to pre-test them. Following this, section 5.4.3 discusses the questionnaires including a justification for the choice of measures included in each one. Finally, section 5.4.4 provides the detail on operationalisation of the constructs. Some of the measures included in the questionnaires, and therefore covered in this section, are surplus to the specific requirements of hypothesis operationalisation, but were thought to be potentially important *ex ante*.

### **5.4.1 Summary of conceptualisation of hypothesis constructs**

Randall and Gibson (1990) describe conceptualisation as the stage of the research process which defines the theoretical constructs involved in hypotheses. Much of this has been done in chapter 4. Before proceeding, however, to consider detailed operationalisation issues, it is useful to summarise the way key constructs have been conceptualised. Randall and Gibson note that conceptualisation is particularly difficult in business ethics as there is very little agreement about what constitutes ethical behaviour and further that ethical standards may change depending on the situation. Yet conceptual clarity is a requirement of rigorous empirical testing. There is an inherent tension here, which the current study hopes to accommodate, between the need for clarity on one hand and the need to try to understand complexity on the other. The remainder of this short section gives a summary of the conceptualisation of each of the theoretic constructs in the research hypotheses which require

further definition. Conceptualisation of other constructs not included here is thought to be relatively straightforward and is made explicit from an examination of the way these constructs have been operationalised e.g. firm commitment, job characteristics, locus of control, etc., using established measurement scales.

*Ethical judgement.* This is defined as the process of making a judgement about an issue which contains an ethical or moral dimension. The main aim of this thesis is to examine the various factors which can influence the process of ethical judgement. In order to do this, we do not need to define the ethical judgement process itself. However, clarity is still required about how we can ascertain what differentiates between different types or outcomes of ethical judgement. Randall and Gibson (1990) are scathing about studies based on assessments of “more/less ethical” decision making or “good/bad ethics” which offer no definition of these terms. An alternative approach is to define ethics in terms of a particular response to a scenario i.e. to predetermine according to a particular set of rules or principles that one response is the “ethical” response and the alternative is the “unethical” response. The difficulty with this approach is that it requires *a priori* ethical judgement on the part of the researcher. Whilst elements of such judgement cannot and should not be avoided particularly in the discussion and interpretation of results, it would be more satisfactory to use a definition of the outcomes of ethical judgement which first allowed for an investigation of its complexity. The approach taken in this thesis, therefore, is to conceptualise ethical judgement as a multidimensional construct. That is, there are a number of different ways to assess the rightness or wrongness of a single situation which may lead to different, even conflicting judgements of ethicality. This conceptualisation affects operationalisation, which will employ literature on the multidimensional nature of ethical decision making, and data analysis of scenario responses which will look for the existence of the hypothesised dimensions and for any other evidence of strong dimensionality in the responses. The detailed definition of dimensions of ethical judgement are addressed in section 5.4.3. where some of the themes discussed here will be developed.

*Personal values.* Personal values are conceptualised as a set of “conceptions of the desirable” (Kilby, 1993, p.32) held by an individual which influences his/her attitudes, beliefs, decisions and actions. The values can be diverse in nature, including, for example, culture-wide moral values and limited-domain values which operate in specific environments such as institutions.



*Organisational values.* These are conceptualised as the set of “conceptions of the desirable” held collectively by an organisation. They can dominate the way people think and behave in organisations. As discussed in chapter 2, Liedtka (1989) says that organisational values dominate the selection of organisational goals and form the “givens” which frame the possibilities and alternatives in decision making. Organisational values therefore form an important part of the context or situation in which ethical decision making occurs.

*Socialisation.* This is conceptualised, as described in section 4.3.3.2 of this thesis, as a process by which newcomers are assimilated into occupations or organisations. Through socialisation, organisational values typically have an increasing impact on individuals’ behaviour. Assimilation can happen through many different mechanisms, few of which are well-understood. Relevant to the context of the present study, however, is the notion discussed in the occupational socialisation literature (Becker, 1961; Coffey, 1994a) that the ‘group perspective’ can help new recruits develop a collective identity with shared values. This idea has been discussed in chapter 3 and will be used in this chapter to guide operationalisation of the socialisation construct.

*Reinforcement contingencies.* As discussed in section 3.3.3 of chapter 4, these are conceptualised as explicit or implicit rewards and punishments offered by organisations contingent upon certain types of behaviour. Reinforcement theory posits that through individuals’ knowledge and awareness of reinforcement contingencies, organisations can have the power to influence individuals’ behaviour.

## **5.4.2. General questionnaire design**

### **5.4.2.1 Introduction**

The design of a questionnaire can have a huge influence on the response rates achieved, on the meaningfulness of the data and on the results. Much literature exists about achieving good questionnaire design. Before the first question can be written, there are a number of general issues which it is advisable to consider in the questionnaire planning stage. Oppenheim (1992) suggests a number of considerations including the build-up and ordering of question sequences within the questionnaire, the order of questions within each module, and the type of question to be used (e.g. close-ended versus free response categories). Generally, module and question ordering should be chosen according to the internal logic of the questionnaire or depending on the subjects’ likely responses. For example, the ethical

decision scenarios were left to the end of the questionnaire since they represent quite a sensitive subject which may “put subjects off” if included near the start. Further, questions which were likely to be easier and quicker to answer i.e. individual rather than situational variables, were put at the beginning to give the subjects the feeling they were making fast progress through the long questionnaire, etc. The type of question used is a rather more complex issue which is addressed next.

The type of question used is often determined by the type of data being sought by the researcher. The main distinction of relevance here is between open and closed questions. Open questions allow subjects the freedom to provide a response to a question in their own words and terms. This has clear advantages in that it avoids the risk of the researcher predetermining the outcome by their choice of response categories as in closed questions. Open questions do, however, have significant drawbacks. They do not present all respondents with standard stimuli which makes comparison of subjects methodologically troublesome. Open questions are demanding and time-consuming for respondents. This can result in incomplete answers or partially completed questionnaires which would impact on the response rate. From the researcher’s perspective, open questions are difficult and time-consuming to encode and analyse, and can introduce an additional element of subjectivity into the research. The alternative is closed questions which have none of these drawbacks. The main general criticism of closed questions is that the researcher can, relatively easily and often unconsciously, introduce bias into the data by “prompting responses in a way that reflects the reality of the researcher” (Marshall and Dewe, 1997, p 253). Restricted response scales can also irritate subjects who feel that their opinion is not represented amongst the choices. The specific criticism made of closed questions in business ethics research is that closed questions fail to take into account the importance of the context in which ethical decisions are made, resulting in low within subject reliability and external validity (Bain, 1995). This issue has already been discussed in section 5.2. Closed questions are used extensively, but not exclusively, in this study. This choice is justified with reference to the discussion in 5.2, essentially that, if carefully constructed, closed questions can still be useful in obtaining information and attitudes. Furthermore, there is a distinct part of the business ethics research agenda which encourages the empirical testing of models of ethical decision making using quantitative, multivariate data analysis (e.g. Collier, 1995; Randall and Gibson, 1990; Robertson, 1993). It would have been impractical, even impossible, to collect the amount of data necessary to do this using open questions.

A final issue on questionnaire design is question wording. The aim of a questionnaire is to gather information about individuals' views with as little distortion as possible. Oppenheim (1992) suggest a number of rules to guide the lengthy but creative process of questionnaire design, redesign, piloting, etc.: Questions should not be too long (maximum, say, 20 words), double-barrelled questions (two questions in one), double negatives and proverbs should be avoided, "don't know" or "not sure"-type responses should be included where relevant, simple words should be used and jargon, abbreviations and technical terms should be avoided. Oppenheim also suggests wariness of emotionally coloured words such as free, healthy, natural, modern, etc., as they can provoke responses not so much to the question as to the word itself. These type of words can contribute to social desirability bias (see section 6.3.3). There is obvious potential to use such words in a field such as business ethics. Once aware of the problem, according to Oppenheim, researchers can use their ingenuity to rephrase questions using less loaded terms. An example in this study is the use in the scenario responses of acceptable and unacceptable in the place of ethical and unethical (used in many empirical studies).

This section has introduced some of the general considerations in questionnaire design. The remainder of section 5.4.2 addresses some issues which are more specific to questionnaire design for this particular study. The length and format of the questionnaires is considered in section 5.4.2.2, followed by issues created by the longitudinal design in section 5.4.2.3. The appropriateness and use of scenarios in business ethics research is discussed in section 5.4.2.4. Finally, in section 5.4.2.5, the procedures for piloting or pretesting the questionnaires are described.

#### **5.4.2.2 Length and format**

It was clear from the beginning of the study design process that a reasonably long questionnaire would be required to collect reliable and valid information on variables posited in the literature to be related to ethical judgement. An important consideration therefore arose as to the maximum length (of questionnaire and time) that could be employed without jeopardising response rates. During the piloting process, discussed in section 5.4.2.4, subjects were asked about this issue. Most expressed willingness to spend a maximum of 15 to 20 minutes completing a questionnaire of this sort, particularly if they were informed in the introductory paragraph that 15 to 20 minutes was the normal or expected completion time. This length of time was found to equate to a three-page, double-sided questionnaire.

The first side was used to collect 'neutral' socio-demographic information. The back page contained the two ethical judgement scenarios and the multidimensional response scales. The remaining pages covered all the other individual and situational variables.

#### **5.4.2.3 Longitudinal design**

The three questionnaires were very similar, both in terms of format and measures included. This was to enable change over time to be assessed. With research of this nature, especially scenario-based research, there is a danger that subjects will become very familiar with the questionnaire material and that this familiarity might affect their responses in such a way as to damage the quality of the data, for example, if they remember what their responses to the same question on the previous questionnaire, and simply repeat it. Various factors in the current research design, however, mitigated against this danger. First, the periods of time between interventions were over a year. It is, therefore, unlikely that subjects would remember their responses to particular questions. In addition, the length of time was thought to be long enough so that subjects addressed the questions almost as if for the first time, as much of the material on the fairly lengthy questionnaires would have been forgotten. Second, all responses were on multi-point scales, making it even less likely that particular responses could be remembered.

#### **5.4.2.4 The use of scenarios**

The use of scenarios or vignettes has substantial precedent in decision making research generally and ethical decision making specifically. Many writers have discussed their suitability for ethical decision making research (Alexander and Becker, 1978; Hunt and Vitell, 1986; Murphy and Laczniak, 1981; Randall and Gibson, 1990; Robertson, 1993) The majority of empirical studies of frameworks of ethical decision making have adopted this approach (see Table 2.4 which provides a summary of these studies). Alexander and Becker (1978, p. 103) concluded that "the use of vignettes helps to standardise the social stimulus across respondents and at the same time makes the decision-making situation more real". Further, it can help overcome the problem of socially desirable responding, a major problem of ethics research (Singhapakdi et al., 1996). Social desirability is the tendency of subjects to present themselves according to what they consider to be acceptable to others, rather than according to their own judgements. Schlacter (1990) argues that social desirability bias is particularly bad in professions as a result of strong professional expectations of ethical behaviour - indirect questioning can overcome. In the light of this bias, many researchers

have advocated the use of indirect questioning methods to elicit subjects' ethical judgements. Scenarios do this by presenting subjects with a hypothetical situation which they are asked to assess. This avoids the need for subjects to report either their own actual ethical/unethical behaviour, or, if the scenarios are worded appropriately, what they would do in the situation described. They are asked only to report their opinions of a hypothetical person's actions. Social desirability bias is considered in more detail in section 6.3.2.

Despite the frequent use of scenarios in ethical decision making research, a number of concerns have been raised, some of which have already been discussed in section 5.2. In their critical review of methodology in business ethics research, Randall and Gibson (1990) identify the major problem of scenario formats as vagueness and generality. As has already been discussed in section 5.2, Randall and Gibson expressed concern that the scenarios they reviewed tended not to reflect realistic situations. Further, that they did not include sufficient detail to allow realistic decision making i.e. that they presented the world in a simplified form which did not reflect the complexities of ethical decision making. While to an extent, this is an inevitable problem for research using scenarios, first, it must be weighed against the benefits of using scenarios, discussed above, and second, efforts must be made in the choice of scenarios, and in pretesting them, to ensure that they are recognisable, salient and interesting to subjects. These efforts were made in the current study and are described in section 5.4.3.11. Randall and Gibson also highlight a secondary problem of the heavy use of closed-ended questions used for assessment of scenarios i.e. the respondent does not have to devise a solution to an ethical problem, instead choosing from a range of options. Subsequent work by Reidenbach and Robin (1990) and Hansen (1992) on multi-dimensional response scales, employed in the current study, may have helped alleviate this problem. This is discussed further in the context of the specific approach to the use of scenarios adopted in this study (see section 5.4.3.11).

#### **5.4.2.5 Questionnaire piloting**

Piloting or pretesting is one of the methods commonly relied upon to help increase reliability and validity of measures. Piloting also encourages the scrutiny of question wording, ordering and response categories (Bailey, 1982). It has the potential to eliminate inappropriate or confusing material from the research instrument. Piloting is important not only in the case of newly developed measures, but also established measures being used in new contexts. It should be conducted on the target population (Randall and Gibson, 1990), whilst ensuring

that it does not include any of the subjects in the study's sample.

The current study employed various types of pilot subjects. The first group consisted of some accounting academics at the University of Nottingham, the second, a small convenience sample of accounting practitioners who had all passed through the chartered accountancy training process, and the final and most significant group, a number of graduate trainees in two different training firms in the East Midlands not participating in the main study. In each case, pilot subjects were presented with the questionnaires and asked to complete them. The time taken to complete them was noted to ensure that the questionnaire was not excessively long. Then in small group discussions with the researcher, pilot subjects were asked to comment on any areas or particular items in the questionnaire which they found unclear, confusing or misleading. Subjects were also asked to highlight any areas which they had found particularly difficult or slow to complete, and to comment on question wording and ordering. As has already been discussed above, it is important to establish that scenarios used in questionnaires are understandable and realistic. An important function of piloting was to check the appropriateness of the particular scenarios chosen. Subjects were therefore asked to comment on the information given in the scenarios, to ensure that they provided realistic and sufficient detail to facilitate an ethical judgement, and on the response categories of the multidimensional scale.

Each of the three questionnaires was pretested by the above groups. This was because each of the three questionnaires contained new questions or measurement scales not included in the others. For instance, the second questionnaire included a socialisation scale not included in the first, and the third questionnaire included questions about the training experience not included in either of the preceding questionnaires. The piloting process in the first year was the most lengthy because it was at this stage that most of the problems were sorted out. Details of the amendments made in response to the piloting process are given in section 5.4.4 when detailed operationalisation is discussed.

### **5.4.3 Operationalisation of constructs**

Randall and Gibson (1990, p.462) describe operationalisation as taking "decisions (which) involve finding reliable and valid measures for theoretical constructs". While the issues of reliability and validity are introduced and discussed in chapter 6, the concern of this section is to discuss and justify the measures chosen to represent the theoretical constructs included

in hypotheses raised in chapter 4. Generally, the scales should conform as closely as possible to the conceptualisation of the construct used in the research study. It tends to be the case that pre-established scales generate more reliable and valid data. In the current study, it was therefore considered desirable to find and use pre-established scales where possible. In a relatively new field such as business ethics there are many ideas and constructs for which no such scales exist. In the case of such constructs, operationalisation involved finding “proxy” measures in order to use a pre-validated scale, and in one case, using the theoretical literature to develop a scale because no existing scale came close to representing the construct (socialisation - section 5.4.3.5). Such “second best” solutions are a good example of the trade-off between the desirable and the practical (Bailey, 1982) discussed in the introduction to this chapter. Where well-established scales were used, the precise response categories which had been validated by previous researchers were also used. This meant that the social power scale, for example, was used in conjunction with a five-point Likert response scale, whereas other scales such as role ambiguity and conflict were used with a seven-point scale.

#### **5.4.3.1 Personal values**

Personal values are conceptualised as the important principles which guide one’s behaviour, or “conceptions of the desirable”. To measure personal values, the well-established Rokeach Value Survey (RVS) was used as a basis (Rokeach, 1968 and 1973). Rokeach is one of the few psychologists who have studied values rather than specific attitudes. The survey was used to elicit individual’s value systems by asking them to rank values within two sets of 18 values. One set represents terminal values, or desired end states of living e.g. pleasure, wisdom, and the other set represents instrumental values, or desired ways of living e.g. intellectual, independent. By its very nature, the survey was an investigation of evaluative rather than worth values. It has subsequently been used in many different contexts including extensively in the marketing/consumer research domain. Space constraints on the questionnaire meant that the full RVS was not very practical. The reduced set of 10 terminal values (McQuarrie and Langmeyer, 1985) were therefore used. The original RVS asks subjects to rank values in order of importance as guiding principles in their life. Subsequent studies have, however, recognised the methodological shortcomings associated with the ipsative nature of the RVS which can arise due to subjects’ difficulty in ranking a large number of items, and have employed alternative scaling formats including the Likert format (Munson and McIntyre, 1979; Reynolds and Jolly, 1980; McQuarrie and Langmeyer, 1985).

This study employed a 7-point Likert scale anchored at “very important” and “very unimportant”.

Investigation of the data from the 10-items scale in year one using cluster analysis revealed one item as an outlier (salvation), with the other items clustering quite closely. This may be explained by the notion of saliency of values. Kilby (1993) notes that values may assume different importance, or salience, at different times or under different life circumstances. For example, Rokeach (1973) found that poor people were more likely to rate “comfortable life” higher than the more affluent, black people more likely to rate “equality” higher than whites, and older people were more likely to rank “salvation” higher than younger people. It was, therefore, decided to exclude salvation when the personal values scale was used again in year 3, as the sample could all be considered young.

As a supplement to the personal values scale, materialism was also measured using Richins’ 6-item materialism measure (Richins, 1987). Richins conceptualises materialism as an important consumer value. As such, it involves beliefs and attitudes so centrally held that they guide individuals’ conduct in life. The measurement of this specific value is therefore included in the current study to supplement the general personal values scale discussed above. Intuitively, materialism was thought to be salient to the study population of new graduates. The scale captures the happiness dimension of materialism, that is, the belief that possessions are essential to satisfaction and well-being in life (Richins and Dawson, 1992). The items are scored on a 7 point Likert format from strongly agree to strongly disagree.

#### **5.4.3.2 Locus of control**

The locus of control personality construct was measured using the scale developed and refined by Rotter (1966). This scale has been used successfully in numerous studies some of which were discussed in chapter 2 and summarised in chapter 4 (section 4.3.2.2). It has been shown to measure the locus of control construct consistently in a wide range of situations. The original scale consists of 23 forced choice items plus 6 filler items designed to make the test’s purpose more ambiguous. Each item asks subjects to choose one of two alternatives representing the internal and external orientations. The test attempts to measure the subjects’ belief about the nature of the world, in particular, their belief about whether events in life are contingent on their behaviour (internal orientation) or on chance, fate, etc. (external orientation). There was insufficient space on the questionnaire to allow the use of the full



29-item scale; 10 items were selected by systematically eliminating the filler items and items which were of a repetitive nature. Pilot testing indicated that in the context of the questionnaire's nature and length, subjects quickly became fatigued by individual scales, particularly those with repetitive elements, and that 10 was about the maximum tolerable length for the locus of control measure. The score is the total number of external choices.

#### **5.4.3.3 Turnover intentions**

Turnover intentions were only included in the third questionnaire when trainees would typically be thinking about what they wanted to do after qualification. A single-item measure was designed specifically for graduate accounting trainees. It asked them to select one from a series of career options in response to the question "What do you hope to do in the next 2 to 3 years career-wise after qualifying?". The options included staying with the current firm, moving to another accountancy practice, moving into industry, business or commerce, "other", and "don't yet know". This information thus provided was used to determine whether respondents were likely to stay (including the "don't knows") or leave (all other options).

#### **5.4.3.4 Organisational commitment**

The commitment of an individual to an organisation can be characterised as a strong belief in an organisation's goals and values and a strong desire to maintain membership of the organisation (Mowday et al., 1979). A high degree of commitment of an individual to the firm implies that the firm is likely to influence his/her behaviour, and that the individual is likely to be highly susceptible to the influences of the firm's normative structure. Both commitment to the firm and to the profession were measured using the Organizational Commitment Questionnaire (OCQ) developed by Mowday et al. (1979). To achieve this, the word organisation was replaced with either "firm" or "profession" as appropriate. The same approach has been taken in other studies of commitment in the accountancy profession e.g. Aranya and Ferris (1984).

The original OCQ contained 15 items, but a reduced 9-item version of the scale was also used and reported. As with materialism, the items were scored on a 7 point Likert format from strongly agree to strongly disagree. The scale was originally designed to capture three dimensions. These comprise first, a strong belief in, and acceptance of the organisation's goals and values, second, a willingness to exert effort on behalf of the organisation, and third,

a desire to maintain membership within the organisation. Mowday et al's data (1979), however, only revealed one single general dimension. Due to the desire to minimise respondent fatigue, space was at a premium in the present questionnaire. Hence 7 of the reduced 9-item scale were used to measure commitment to the firm and 6 items were used to measure commitment to the profession. The items for exclusion were chosen on the basis of eliminating elements of repetition within the scale.

#### **5.4.3.5 Organisational socialisation**

The literature reviewed in chapter 3 is quite clear that individuals are subject to a process of socialisation on entering a new organisation. This is perhaps especially true for graduates entering the workplace for the first time on completing undergraduate studies. Socialisation, as conceptualised in the current study, is a process through which organisational values can influence individuals' values, judgement and behaviour. The link between socialisation and *ethical* judgement becomes more apparent if one considers the tendency of firms to rely deliberately on on-the-job training as a specific part of their ethics training strategy (Hull et al., 1999). Such training *relies on* the assimilation of the firm's ethical values by individuals. It was therefore considered important to include an instrument to measure aspects of the socialisation process in the current study. There are, however, no suitable pre-established socialisation measurement scales, as most research in the area of socialisation of graduates into the UK accountancy profession has been qualitative in nature (Power, 1991; Coffey, 1993 and 1994a). The results of these qualitative studies indicate that socialisation processes are very context specific, thus rendering more general socialisation scales inappropriate. The only remaining option available was to design a measurement scale specifically for the current study using the limited accountancy socialisation literature as a guide.

The starting point for the development of the scale was Coffey's (1994a) notion that an important mechanism by which graduate accountants are assimilated into the profession is the development of a 'group perspective' which helps new recruits develop a collective identity with shared values. The basis of Coffey's belief in the role of the group in socialisation is not based on the simple notion that individuals learn about organisational values and norms directly from other group members. The appropriateness of the use of the group perspective as a proxy measure for socialisation does not, therefore, rely on the peer group themselves already being socialised. Rather, it reflects the importance attached by Coffey to the notion of *collective identity*. She argues that a key aspect of graduate

socialisation is the formation of a group identity which is used both by the trainees and by firms. Trainees use the group to cope with the pressures and trials of training by using it for problem solving, both for individual struggling group members and for the whole group e.g. by forming study groups. Trainees also use the group to make sense of training by comparing new experiences, and as a means by which they can collectively establish their position in the firm as a whole. The “natural” formation of this collective identity is encouraged and used by the firm to “sell” a distinct, strong organisational identity by emphasising the distinctiveness (superiority) of the firm, thus reinforcing the group’s feeling of collectivity. Coffey’s focus on the group perspective suggests that the socialisation of individuals into the ways of the organisation happens indirectly through organisational influences on the collective rather than the individual’s identity.

Scale items were designed to measure the importance attached by individuals to issues around collective identity. The resulting scale can be seen in the questionnaires reproduced in the Appendix, and also in Table 5.3 below for ease of reference. Item numbers 6 and 9 were designed to be reverse coded. The wording of the items reflected specific issues discussed by interview subjects in Coffey’s study (1994a), all of which were corroborated by discussions with the group of trainees who piloted the current study’s questionnaires and by reference to the researcher’s own experience<sup>1</sup>. Particular attention was paid to the scale during the piloting process to ensure that there could be minimal confusion about the wording or meaning of the items. All the trainee pilot subjects indicated that the items in the scale had resonance with their own experiences. A further, two-item established scale was also included in the questionnaire to measure acceptance by co-workers (Dubinsky et al, 1986). This was to provide a check on group membership and identity. While there are other aspects of socialisation reported in the sociology literature, the scales discussed here cover the domain of the socialisation construct which the literature has highlighted as relevant to the current study of ethical judgement of trainee accountants.

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<sup>1</sup> Although taking an ethnographic approach to understanding the way graduate accountant are trained, Power (1991) proposes that drawing on personal experience in the research process is “hermeneutically important”. This is founded on the notion that, from an epistemological point of view, the autobiographical approach is equally as appropriate as, say, the participant observer basis.

*Table 5.3: The socialisation measurement scale*

Item label	Scale item
soczn1	As a year group, most of us care about how the others are getting along
soczn2	Work is made more enjoyable through being part of a group
soczn3	The support of my year group is important to me at work
soczn4	I spend most of my social life with my year group
soczn5	I feel like I belong to, and am a part of my firm
soczn6	Socially, I try to get away from work and colleagues
soczn7	As a group, we're all in this together and try to help each other pull through
soczn8	If I have a problem with some exam study, I ask another member of the group for help before asking a tutor
soczn9	The way we do things in this firm is pretty much the same as in other similar sized firms

#### **5.4.3.6 Peer group influence**

Socialisation has been operationalised in terms of group identity, membership and belonging, rather than peer group influence. The scales used to measure peer group influence attempted to capture the direct influence on trainees' behaviour of the opinions of colleagues. Due to the possibility of overlap in the measurement of the two related constructs, particular care is taken in examining the diagnostic details at the data analysis stage. The first scale measured susceptibility to peer group influence using a reduced version of the conformity motivation scale (Lennox and Wolfe, 1984). This was originally a 13-item scale. For reasons of space, the scale was reduced to 3 items by eliminating all items which related to general rather than work-based conformity motivation. A second, single-item was designed to use as a cross-check with the conformity motivation scale. Incorporated with the role ambiguity scale, it asked subjects to rate the truthfulness (7-point scale anchored on "very true" and "very false") of the statement "I take account of the opinions of my peer group when deciding how to carry out my job".

#### **5.4.3.7 Organisational values**

Organisational values were operationalised using England's scale (1967). This scale has been used successfully to operationalise organisational values in previous studies (e.g. Akaah and Lund, 1994; England, 1967). The original scale presented subjects with 11 items representing 11 types of organisational goal. For each item, respondents were asked to rate

the importance of the goal on a 7-point scale anchored at “not at all important” and “highly important”. This format was replicated in the current study except for the omission of 2 items. The first was “high productivity” which was not thought to be particularly relevant in the context of non-manufacturing firms. The second item, “organisational effectiveness”, was omitted to avoid confusion after pilot subjects expressed uncertainty about the distinction between effectiveness and efficiency, one of the other items. In previous studies, the values have been reduced to three dimensions, service, productivity and leadership values. The two service values are “service to the public” and “organisation’s value to the community”. These values also appear to have a corporate social responsibility/business ethics interpretation which will be used in later chapters of this thesis.

#### **5.4.3.8 Reinforcement contingencies**

The role of trainee accountants within the organisation could be said to be characterised by power, dependence and uncertainty of success. Most are aware that their career progression and job security is dependent upon professional examination success. Furthermore, individuals are dependent upon their employers to provide financial support and study leave. They have few strategic options, as it is very unusual for trainees to change firms during their training contract. Power is related to strategic vulnerability and insecurity (Kennedy and Lawton, 1993). Firms are therefore in a position of power over their trainees which, through reinforcement contingencies, may cause pressure on ethical decision-making. According to this fairly widely-accepted conceptualisation, reinforcement contingencies can be operationalised by measuring the extent of various types of power held by firms over trainees.

Reinforcement contingencies are operationalised using the Social Power Scales developed by Swasy (1979) to measure the 6 types of interpersonal social power relevant to organisations conceptualised by French and Raven (1959). The first is reward power based on the ability to mediate positive outcomes and to remove/decrease negative outcomes. The second is coercive power based on the ability to punish for non-compliance. Referent power is third, and is based on feelings of identification and the desire to maintain similarity while legitimate power, fourth, concerns the right of influence or the right to be obeyed held by individuals in an organisation. The fifth type of power is expert power which is about the attribution of superior skills or knowledge to another. Finally, informational power stems from the importance of the communication provided by the influencing agent. The complete

scale has 31 items split across the 6 power types with an 18-item reduced version consisting of 3 items for each type. This study used a further-condensed, 11-item version. Informational power was omitted on the grounds that it was not especially relevant in the ethical decision-making context. Two items were included for four of the remaining categories, and three for coercive power.

#### **5.4.3.9 Firm's support of ethics**

A firm's support of ethics is conceptualised as its attitude towards unethical actions, including the approach taken to rewarding/punishing ethical/unethical behaviour. Scale development in the area of the ethical values of organisations has been hindered by the difficulties arising from context specificity. However, Hunt et al. (1989) developed a unidimensional 5-item scale which attempts to capture the broader principles concerning whether an organisation is interested in ethical issues rather than focusing on context-specific issues. A reduced version of this scale is used to operationalise firm's support of ethics in the current study. Due to space considerations, it was decided not to use the whole scale but to use the 2 items which attempt to capture "reward systems"; Hunt et al. recognise the importance of reward systems in the shaping and maintenance of behaviour and therefore include items which attempt to capture the extent to which employees perceive that ethical behaviour is rewarded or punished in the organisation. In the second and third questionnaire, the scale was expanded by one item which captured perceptions of partners' general attitude toward the acceptability of unethical behaviour.

#### **5.4.3.10 External pressures**

The model developed in chapter 4 posits that certain pressures can act as disincentives to the adoption of organisational values in ethical decision making. Trevino (1986) specified these pressures as being associated with time, scarce resources, and competition. There has been, however, very little empirical examination of these types of relationship. It seems likely that there are numerous situational factors, including the ones hypothesised by Trevino, which have the potential to put pressure on ethical judgement. The approach taken to operationalising external pressures was, therefore, to attempt to assess a range of features of the trainee accountants job. Two different measures were used to do this. The first was a scale capturing role conflict and ambiguity. These constructs represent potentially pressurising influences in the immediate job context. Role conflict is defined in terms of conflict between internal standards and the defined role behaviour, or the conflict between

time, resources and capabilities and the defined role behaviour, or conflicting expectations arising from incompatible policies or conflicting requests. Role ambiguity is defined in terms of predictability of the outcome or the response to one's behaviour (Rizzo, House and Lirtzman, 1970). They act as a measure of the uncertainty and insecurity implicit in the role of trainee accountant, discussed under social power, above. The second measurement instrument used to assess job-related pressure was a well-established job characteristics scale. The literature offers little guidance as to which specific job characteristics might negatively affect ethical decision making. This scale was therefore included in the questionnaires in order to explore this issue.

Role ambiguity and conflict were measured using the scale developed by Rizzo, House and Lirtzman (1970) comprising 6 items for role ambiguity (RA) and 8 for role conflict (RC). As before, concerns about respondent fatigue, especially towards the end of the questionnaire, made a reduction in the length prudent; the 8-item RC scale was reduced to 6. The two items for omission were selected as a result of piloting the questionnaire which highlighted 2 items which were thought to be repetitive. The original format for scoring consisted of a 17 point scale from very true to very false. This was felt to be rather unwieldy and a 7 point scale anchored with the same words was used instead.

Job characteristics were operationalised using the Job Characteristics Inventory (JCI) developed by Sims, Szilagyi, and Keller (1979) and supplemented by the job satisfaction scale developed by Wood, Chonko and Hunt (1986). The JCI measures characteristics of job satisfaction and performance in six dimensions - variety, autonomy, task identity, feedback, dealing with others and friendship opportunities. In its original form, it uses 30 items scored on a 5-point Likert scale from very little to very much. Wood et al.'s scale draws items from the JCI and adds items relating to pay and security. With the space constraint in mind, 2 items were selected from the JCI for each of 5 dimensions and 1 item for task identity. Only one item was deemed to suffice for task identity since all the items for this dimension were very similar. Wood et al.'s 2 items for satisfaction with pay and security were used to supplement the JCI, with their other 3 dimensions having been covered by the JCI. Following previous research, the composite scale was scored using a Likert format of (1) very much to (7) very little.

#### **5.4.3.11 Ethical judgement**

This study employed three scenarios to measure ethical judgement. Each questionnaire included two of these. Pretesting with the trainees showed that they would be unwilling to complete any more than this. As noted by Hunt and Vitell (1990), the ideal way to test a model of ethical judgement would be to employ multiple scenarios. Their study, however, used just one scenario (about double the length of the scenarios used here) as pretesting had also revealed that subjects became quickly fatigued when scenarios were combined with multidimensional response scales.

The main criteria for the selection of scenarios were sufficiency of detail and realism of the situation described, in response to the concerns raised in section 5.4.2.4. It was also considered important to use scenarios from previous research as an aid to cross-validation of results. The use of pre-existing scenarios has been commended in the literature as a means by which analysis of results from a systematic programme of research can contribute cumulatively to business ethics knowledge (Robertson, 1993; Weber, 1992). The full text of the scenarios are on the final pages of the reproduced questionnaires in appendix 1. The first, the case of the flammable pyjamas (FP case), was developed by Karnes et al (1989) and used to analyse cultural differences between Taiwanese and U.S. accountants. It was selected for its inherent interest and its potential conflict of interest between personal and professional ethics. The second scenario, the tax referral case, was developed by Loeb (1971) and has been used by subsequent researchers (Ward et al., 1993) in accounting ethics research in the US. It required an ethical assessment of a Chartered Accountant paying a small compensation to a client for a tax referral. This scenario was somewhat more subtle, representing a situation in which professional obligation was less clearly defined. The third scenario was developed by Schlacter (1990) as part of a larger instrument containing situations of inherent moral conflict faced by practising accountants. It sets up the potential for conflict by describing a situation in which an audit trainee has to choose between doing overtime or signing-off audit tests marginally prematurely in order to go home and prepare for an important professional examination the next day. Pretesting confirmed that this sort of situation was very common in the experience of trainees. It was therefore expected to raise interest and feelings of involvement on the part of questionnaire respondents. Schlacter assessed responses by presenting subjects with various suggested solutions and asking them to consider the impact of each on their chances of career progression (single-item scale anchored on “detrimental” and “helpful”). For the current study, one of these solutions was



incorporated in the scenario and subjects were asked to assess the solution using the multidimensional ethics scale discussed below. As a result of pretesting, which revealed that the scenario was rather short, some further details were provided based on discussion with the pilot subjects and on the researcher's own personal experience. Pilot subjects commented that the scenarios, particularly the third, were realistic and detailed enough to allow them to form judgements.

The scenarios having been selected, an important decision remained about how to measure responses to them. Ward, Ward and Deck used a single-item Likert scale of 1 to 5 with 1 being totally acceptable and 5 being totally unacceptable. As has been discussed, however, this study required a scale which would allow the investigation of complexity by assessing different aspects of ethical judgement, rather than a general single item scale. Different aspects arise from the different rationales that can be used in making ethical judgements. Work on scale development by Reidenbach and Robin (1990) and later by Hansen (1992), based on the different types of normative moral philosophy, has produced multi-dimensional ethics scales to replace the single-item measure. Reidenbach and Robin include three constructs in their scale: The first is a broad-based moral equity construct, dominated by the notions of fairness, justice and 'that which is right', the second is a relativistic dimension, concerned with guidelines and requirements of social and cultural systems, and the third is a contractualism dimension comprising notions of obligation, duty and contract. Subsequently, Hansen used Reidenbach and Robin's work as a starting point for refinement of the scale which resulted in the retention of the broad-based ethical judgement, but which redefined the other constructs into deontological judgement ("inherent rightness/wrongness" - Hansen, 1992, p. 532), teleological judgement (evaluation of consequences) and social contract judgement ("whether any of the alternatives would violate an unwritten contract or unspoken promise" - Hansen, 1992, p. 533). It is clear that these scales still need to be tested and refined further. However, for the purposes of this study, a combination of Reidenbach and Robin's and Hansen's approaches was used to produce a composite measurement scale. Table 5.4 shows how the approaches were combined to produce six scale items derived from the literature (items 2 to 7) plus one item representing the traditional single-item approach (item 1). Various wordings were tried, the final ones being the result of the piloting process.

**Table 5.4: A synthesised multi-dimensional ethics scale**

Scale item in the current study	Construct measured	Author
1. Acceptable/Unacceptable	General	--
2. Morally right/Not morally right	Broad-based equity	Reidenbach and Robin
3. Acceptable/Unacceptable to your family	Broad-based equity	Reidenbach and Robin
4. Is/Is not in the best interests of the firm	Teleological judgement	Hansen
5. Socially responsible/Not socially responsible	Social contract	Hansen Reidenbach and Robin
6. Professionally acceptable/Unacceptable	Relativistic	Reidenbach and Robin
7. He was/Was not obliged to act in this way	Deontological judgement	Hansen

As has already been discussed, the main benefit of using a multidimensional ethics scale is that it allows complexity in ethical judgement to be explored. It does this by importing normative approaches to business ethics into what is primarily an empirical study, in answer to calls for the two fields to be integrated (discussed in section 5.2). The response scale allows for the possibility that different philosophical components might emerge in the responses. Although the scale consists of a series of closed-ended questions, an additional benefit of a multidimensional scale may be to mitigate against the problems of closed-ended questions, discussed in section 5.4.2.1, by presenting subjects with a range of ways of assessing the scenario, stimulating them to address the scenario in a more considered manner than the single-item scale. It goes some way towards answering some of the criticisms of empirical methodology raised by qualitative researchers.

#### **5.4.3.12 Training**

Accountancy training can affect ethical attitudes directly or indirectly. Direct methods include the use of formal, classroom-based training covering professional ethics, either as part of the professional examination process at external tutors or as part of the in-house training package typically provided by firms with trainees. Another direct method of affecting trainees' ethical awareness is by provision of the firms' reference manuals which typically incorporate ICAEW guidance on matters of professional ethics which trainees are expected to read and digest (in their own time). Indirect methods include the use of on-the-job training and discussion of ethical issues as they arise and reliance on the professional ethos/culture of the organisation to transmit ethical expectations to trainees. These indirect

methods can be used intentionally or unintentionally to influence ethical attitudes. Finally, UK literature, reviewed in chapter 3, argues that the technical, supposedly value-free focus underlying the whole training process has ethical implications.

Previous studies of education- or training-generated change in ethics have mainly been concerned with assessing the impact of specific, discrete interventions. These studies are not an appropriate source of pre-established measurement scales for use in this study. Operationalisation of the training experience was, therefore, a challenge for this study. A variety of methods were designed to gain as broad a coverage of the different facets of training as possible. They include the use of closed and open questions, descriptive or factual questions and questions requiring statements of opinion. In the first questionnaire, subjects were only asked to indicate the number of hours training or teaching they had received in professional ethics since joining. This was thought to be adequate because of the timing of the questionnaire. The subsequent questionnaires, contained more detailed questions on training. First, trainees were asked to indicate the extent of *non-exam-related* training provided by their firms in various areas including professional ethics (“firm sup”). Second, they were asked to assess the adequacy of professional ethics guidance and/or training since joining on a five point scale (“extent ethics”: none, not enough, about right, a bit too much, too much). Third, trainees were asked to indicate the nature of training on a five point scale ranging from “formal/classroom based training only” to “on-the-job training only”, and how formal training had been delivered e.g. reference material, external tutors, partners/managers. Finally, subjects were offered the opportunity to briefly describe formal and on-the-job training. All these questions were successfully pretested, with minor alterations to wording. The data they generated were used first, to produce descriptive statistics to provide a picture of trainees’ perceptions of professional ethics training, and second, as explanatory variables in multivariate testing of the model developed in chapter 4.

#### **5.4.3.13 Other measures**

##### *CMD*

As discussed in chapter 2, values were chosen from a number of bases for ethical judgement. Many other studies have used the CMD basis using the well-known Defining Issue Test (Rest, 1979) to operationalise it. In this study, it was originally intended to include this measure of CMD in the questionnaires in addition to values measures in order to facilitate comparison between the two conceptualisations of ethical judgement. To this end, the four-

scenario version of the DIT was pilot tested with the same first year trainees as were the other measurement scales. Piloting, however, revealed insurmountable problems. Faced with the DIT, many pilot subjects expressed considerable frustration at their lack of understanding of the purpose behind the test, and many felt unable or unwilling to complete it. This problem was found both in piloting with the researcher present, and in piloting by mail. Graduate accountants are typically subjected to reasonably sophisticated selection processes involving psychometric testing, and are used to being familiar with the aims of such instruments. Further, they tend to be amongst the most academically able graduates, having a high degree of intellectual curiosity and desire to understand. The pilot subjects seemed unwilling to accept that they could not understand the DIT and quickly became frustrated - this was obviously going to damage the quality of the resulting data had the DIT been included in the main research instruments. Other studies with accountants have also reported difficulties with the DIT. Shaub (1994), for example, reported unusually low DIT scores for a group of CPAs. Shaub suggests a number of possible reasons for the results including lack of understanding of items in the DIT measure, an other-than-justice moral orientation<sup>1</sup>, and religious or political conservatism (leading to adoption of rule-following approaches). For the current study, it was decided that the full DIT could not be used to produce reliable and valid data. Instead, a very much simplified and condensed version of the DIT was developed using seven short, direct scale items (see table 5.2) in response to the question "If you were faced with a general moral dilemma e.g. stealing from someone who was very rich (and who wouldn't notice the difference) in order to save the life of a loved one, to what extent would the outcome of your decision depend upon the following?". The simplified scale was developed first by identifying the meaning behind each of the items in the original DIT using the original reference (Rest, 1979) and reviewing Rest's basic statements of Kohlberg's six stages of moral development, upon which the DIT is based. Statements were then devised to reflect the notions contained in the Rest's basic statements for stages 2 to 5. The decision to omit stages 1 and 6 reflects the contention in the CMD literature that not many adults are at stage 1 and not many accountants are at stage 6. Furthermore, for the purposes of the study, a stage 5 principled level is adequate to discriminate between groups. The basic statements of the stages (based on Rest, 1979) are included in Table 5.5 as are the items devised to reflect them. The items were scored on a 5-

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<sup>1</sup> This reflects a major criticism of CMD theory, discussed in section 2.4.3, that the reliance on justice as the root of morality and moral reasoning ignores other possible moral motivations such as caring (Gilligan, 1982).

point Likert format from 'not at all' to 'very much'. The simplified scale was successfully repiloted but, for reasons explained in section 6.5.2, it was only included in the first year questionnaire.

*Table 5.5: Measurement of Cognitive Moral Development*

Stage	Rest's central concept for determination of moral rights and responsibilities	New scale item
Stage 1	The morality of obedience: "Do what you're told."	None
Stage 2	The morality of instrumental egoism and simple exchange: "Let's make a deal."	"What is in my own best interests".
Stage 3	The morality of interpersonal concordance: "Be considerate, nice, and kind and you'll get along with people."	"What is in the best interests of my friends/family." "What is acceptable to my peers."
Stage 4	The morality of law and duty to the social order: "Everyone in society is obligated and protected by the law."	"What the law requires." "What society would think if all the details of the dilemma were known."
Stage 5	The morality of societal consensus: "You are obligated by whatever arrangements are agreed by due process procedures."	"Whether some overall good justifies doing something wrong" "What satisfies basic human rights."
Stage 6	The morality of non-arbitrary social cooperation: "How rational and impartial people would organise cooperation is moral."	None

### *Social desirability*

This study uses a 6-item version of the Marlowe-Crowne (Crowne and Marlowe, 1964) scale to measure social desirability bias. The MC scale has been used in many studies to measure respondents desire "to look good" and, therefore, to assess the bias this may cause to the data. It is commonly understood that social desirability can be split into two factors: self-deception and other-deception, sometimes called impression management (Paulhus, 1984). The MC scale is easily the most popular of a number of scales (see Paulhus, 1984 for a review of others). Marlowe and Crowne contended that it measured a need for social approval. Various validity problems have been raised with regard to this contention (Nederhof, 1985; Randall and Fernandes, 1991). Despite these validity problems, however, Nederhof concludes that the MC scale is best suited to measuring other-deception. Further, Paulhus (1984) provides evidence supporting the notion that a reduced MC scale can utilise scale items which focus on other-deception and impression management. Paulhus examined the

loadings of scale items from several of the social desirability scales on the two factors (self- and other-deception). He reports the highest loading individual items on the two factors from all the scales and although he states that the MC scale measures both factors, the three high-loading items from the Marlowe-Crowne scale all loaded on the impression management factor. Two of these three items have been included in the shortened version of the MC scale (see below). The scale used in this study has therefore been adapted to address the various criticisms which have been directed at the full scale (Randall and Fernandes, 1991). It does seem, therefore, that the MC scale used here is a valid measure of impression management which is of particular concern in ethics research (Randall and Fernandes, 1991).

The full MC scale consists of 38 items, which was too many to include in the research instrument. Greenwald and Satow (1970), however, offered a methodology for reducing the scale to suit time available for testing, likely fatigue and attention span of the subjects whilst maintaining most of its power. In this study, Greenwald and Satow's methodology was adopted to generate a six item scale, two of which were included in Paulhus' list of items which loaded highly on the other-deception factor, as discussed above. The issue of social desirability is discussed in more detail in paragraph 6.3.3.

#### **5.4.4 The questionnaires**

As mentioned above, the three questionnaires were not identical, although many scales were included in each questionnaire to allow the investigation of dynamic issues. Each questionnaire asked for subjects' sex and date of birth. In addition, the first questionnaire collected other socio-demographic information concerning educational and social backgrounds, marital status and nationality. In general, the questionnaires were partitioned into five sections. The first section collected socio-demographic and background information. The second section collected information concerning the training experience of the subjects. The third and fourth sections were concerned with individual and situational variables, employing the categorisation discussed in chapter 2. The final section consisted of various dimensions of ethical judgement elicited from the scenarios. A summary of measures included in each questionnaire falling into the third, fourth and final sections is provided in Table 5.6. The table also gives the paragraph number in the previous section (5.4.3) of detailed discussion of operationalisation. Details of the measurement of training are not included in Table 5.6, but are discussed in paragraph 5.4.3.12. Each of the three questionnaires are reproduced in full in appendix 1. The remainder of this section provides

discussion of, and justification for, the timing of inclusion of the various measures in the questionnaires.

#### **5.4.4.1 Questionnaire 1: Winter 1994/5**

The focus of the first questionnaire was mainly on individual variables. This was because many of the situational variables only became important once trainees had had time to perceive them. There was, therefore, more space available on the first questionnaire to collect data concerning the respondents as individuals, some of which could be expected to remain fairly stable over time. All the individual variables were collected in this first questionnaire except the MC social desirability scale. In addition, to facilitate investigation of dynamic issues, it was necessary to include some situational variables and the ethical judgement scenarios. Data were, therefore, collected on power of the firm, job characteristics, role ambiguity and conflict and firm's ethical values. Although the socialisation and conformity motivation scales were not included, a single-item measure of the importance of peer group opinion ("peer pwr chk") was included in all three years. In the first year, the idea was that this would provide a crude estimate of the reference power of the peer group and, in subsequent years, could be used as a cross-check with socialisation and conformity motivation.

The two scenarios used in the first questionnaire were the flammable pyjamas (FP) case and the tax referral scenario. In the choice of scenarios for each questionnaire, there was a balance between needing to include the same scenario in order to examine change over time, and the need to ensure that subjects did not remember the scenarios and repeat previous years by giving them new stimuli in new scenarios. As a result, it was decided to include one scenario for all three years, and to change the second in the second year to the premature audit sign-off case. Preliminary analysis of the responses to the FP case for the first and second questionnaires, however, did not indicate that subjects were remembering their responses. It was therefore considered safe to repeat the audit sign-off case in the third questionnaire.

#### **5.4.4.2 Questionnaire 2: Spring 1996**

The second questionnaire collected data on all the situational variables including those in the first questionnaire plus the socialisation and organisational values scales. By the spring of 1996, trainees had been employed for nearly 18 months and had therefore had time to form

**Table 5.6: Questionnaire Control List**

Measurement scale/ <i>construct</i>	Number of scale items	Paragraph number	Time 1	Time 2	Time 3
<b><i>Individual variables</i></b>					
Materialism/ <i>personal values</i>	6	5.4.3.1	✓		✓
<i>Firm commitment</i>	7	5.4.3.4	✓	✓	✓
<i>Professional commitment</i>	6	5.4.3.4	✓		
<i>Locus of control</i>	10	5.4.3.2	✓		
<i>Personal values</i>	9	5.4.3.1	✓		✓
CMD	7	5.4.3.13	✓		
Social desirability (bias)		5.4.3.13		✓	
<b><i>Situational variables</i></b>					
Power of the firm/ <i>Reinforcement</i>	11	5.4.3.8	✓	✓	✓
Role ambiguity/conflict/ <i>External pressures</i>	6/6	5.4.3.10	✓	✓	✓
Job characteristics/ <i>External pressures</i>	11/3	5.4.3.10	✓	✓	✓
Firms' goals/ <i>Organis' al values</i>	9	5.4.3.7		✓	✓
Firm's ethical values/ <i>Support of ethics</i>	2	5.4.3.9	✓	✓	✓
<i>Organisational socialisation</i>	8	5.4.3.5		✓	✓
Acceptance by co-workers/ <i>Peer group influence/socialisation</i>	2	5.4.3.5/6		✓	✓
Conformity motivation/ <i>Peer group influence/socialisation</i>	3	5.4.3.5/6		✓	✓
<b><i>Ethical judgement vignettes</i></b>					
Flammable pyjamas scenario	7	5.4.3.11	✓	✓	✓
Tax referral scenario	7	5.4.3.11	✓		
Premature audit sign-off scenario	7	5.4.3.11		✓	✓

Normal text indicates the measurement scale which is followed the construct it measures in *italics*. Where there is only italic text, this indicates that construct and measurement scale share the same name/title.



opinions and perceptions of the culture of their firms and of “the way things work around here”. The additional situational variables included in this questionnaire reduced the amount of space available for individual variables all of which were excluded except the MC social desirability scale and commitment to the firm. The latter was kept in as it was thought firm commitment might show significant change over relatively short time periods. Constructs such as personal values and locus of control, on the other hand, might be expected to remain relatively stable. As discussed in the paragraph above, the scenarios included in the second questionnaire were the FP and audit sign-off cases.

#### **5.4.4.3 Questionnaire 3: Summer 1997**

The third questionnaire repeated the collection of personal values, as this construct was central to the model of ethical judgement, materialism and firm commitment. Space constraints meant that professional commitment had to be omitted. As in the second questionnaire all the situational variables were included, as were the FP and audit sign-off scenarios.

### **5.5 Sampling**

#### **5.5.1 Study population**

In general, the population for the current study is the group of trainee chartered accountancy training under the auspices of the ICAEW. Accountants in the UK are trained in a number of different ways. A large group of trainees are employed by “normal” industrial or commercial organisations, typically to work in accounts departments. Their functional roles in these organisations provide the trainees with an arena in which to practice the accounting skills they learn whilst on external block release training courses. These trainees include management accountants and certified accountants. This group is not the subject of the current study. Another large group of trainees are employed by partnership-based firms of chartered accountants engaged in “public practice”. These firms come under the umbrella of a geographically-determined governing body such as the Institute of Chartered Accountants in England and Wales (ICAEW) or the Institute of Chartered Accountants in Scotland (ICAS). Trainees typically enter into a three year Training Contract with the governing body, for which the individual firm is the accredited training agent. While a growing number of these firms chose to put their trainees through the ACCA qualification process (ICAEW, 1999), the majority in England and Wales still train for the chartered accountancy

qualification under the ICAEW and are therefore worthy of separate study. By focusing purely on chartered accountancy trainees, it is easier to control for training factors and therefore to examine relationships between other individual and situational factors and ethical judgement. The decision to focus only on ICAEW (English and Welsh) trainees, and not to include ICAS (Scottish) trainees, for example, was made on a purely practical basis, in that the study needed to be restricted to a size and scope that could be managed by a single researcher. Given the complications presented by the longitudinal design, it was realistic to concentrate purely on ICAEW trainees.

Typically, training firms have a portfolio of clients to whom they offer a range of services which have tended to centre around the core services of auditing and taxation planning and compliance. Recent years have, however, seen a significant expansion into other areas such as financial and other types of consultancy, corporate finance and insolvency services. The majority of trainees in these firms work in the audit department, although a number are recruited specifically to work in taxation or other areas<sup>1</sup>. During the three year period of the Training Contract, some trainees, particularly in the larger firms, may also have opportunities for short secondments to other departments to widen their experience. Regardless of which department they are working in, a large part of the working lives of these trainees consists of time spent working at a series of clients to which they are allocated. For many, this means spending the majority of time working at different clients' premises rather than being office-based. They spend relatively short periods of time on each assignment, typically between one and three weeks, before moving on to the next client. This client-based work is interspersed with training for the professional examinations, which tends to be provided by external tutoring firms, paid for by the partnerships, and some job-related training which tends to be provided "in-house". The training experience of chartered accountants is therefore sufficiently different to that of management accountants, for example, to warrant a separate study. Thus, this study focuses solely on chartered accountancy graduate trainees. Similar studies on other groups of trainees may be warranted, but are outside the scope of this study.

Specifically, the population for the study is a particular cohort of graduate trainee chartered accountants, those joining the profession in England and Wales in the autumn of 1994.

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<sup>1</sup> The exception to this is a very small minority of chartered accountancy trainees who are employed by commercial organisations who are accredited by the ICAEW to train graduates outside public practice (TOPP).

Traditionally, autumn is the main starting time for students who have just graduated, although smaller groups of graduates may join at different times of the year. Starting times are usually co-ordinated across a group of graduates to facilitate the training process. In 1994, the total number of graduates who entered Training Contracts with the ICAEW was 3520 in approximately 500 offices. This is the population for the study.

### **5.5.2 Sample design**

The sample was based on a larger, computer-generated random sample used by the Department of Professional Ethics at ICAEW for a separate study. In the ICAEW study, training partners were asked if they were willing to participate in the current study being conducted at the University of Nottingham. The list of the 136 firms who were willing was supplied to this researcher by the ICAEW. The firms represented on the list therefore represented the sampling frame for the current study. The training partners in these firms had agreed to distribute a series of questionnaires to their trainees during their training period. The sample was already stratified by the ICAEW according to size of firm. This was determined by number of partners in the firm<sup>1</sup>. There were four strata, large, medium and small firms and a group of two training outside public practice or TOPP firms (see footnote 1).

### **5.5.3 Longitudinal issues in sampling**

The longitudinal dimension of this study requires consideration of various sampling issues related to the passage of time. First, the timing of the questionnaires is important. By its nature, longitudinal research is interested in whether and why things are changing over time. Attention needs to be given to whether there are particular events which are behind the expected changes. Questionnaires would need to be distributed appropriately to accommodate this. In this study, however, it was unlikely that any particular, discrete events were more influential than the longer term processes of socialisation in the culture of the organisations. Questionnaires were therefore distributed at roughly fixed intervals at the start, middle and end of subjects' formal training contracts. Second, longitudinal investigation requires that individual respondents can be located across time. While some drop-out from the sample was inevitable for various reasons, e.g. lack of professional

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<sup>1</sup> Large firms were defined as having 15 or more partners, medium firms as having between 4 and 15 partners and small firms as having less than 4 partners.

examination success, the majority of individuals could be located easily as a result of their continuing employment at the participating firms. The third longitudinal sampling issue concerns the potential problem of non-response. Typically, non-response needs to be addressed earlier in the research process than in cross-sectional studies, because longitudinal drop-out rates are notoriously problematic. Because this study has cross-sectional as well as longitudinal aims, however, the approach to sampling needed to maintain the longitudinal panel whilst also attempting to maximise cross-sectional response. The response rates achieved in this study and the procedures used to try and maintain response rates are described in section 6.2.4, and the investigation of the data for the existence of non-response bias is discussed in section 6.3.2

## **5.6 Summary and conclusion**

This chapter began by introducing the philosophical debate about methodology and outlining the approach taken in this thesis. Although the research is conducted primarily in the functionalist, empirical paradigm, with the data to be used in hypothesis testing being generated by surveys, the criticisms of other paradigms have been considered and the research design formulated with these in mind. For example, multidimensional response scales, the measurement of situational variables, and parallel interviews respond to criticisms from the qualitative social science paradigm. A degree of theoretical integration of the normative and empirical business ethics fields is achieved in the design of the approach to analysing scenario responses.

Following the discussion of interparadigmatic differences and debates in section 5.2, the choice of surveys as the main method of data collection was discussed briefly in section 5.3. The remainder of the chapter attempted to offer a detailed report of the methodological decisions taken at the outset, and during the course of this research in order to provide the reader with a platform from which to assess the legitimacy of the research and its findings. This included further conceptualisation of some of the constructs included in the theoretical model, detailed discussion of how and why the questionnaires were designed as they were, including information on operationalisation of hypothesis constructs, and finally, discussion of sampling issues. The next chapter continues the methodological theme, but is more concerned with assessing the acceptability, reliability and validity of various aspects of the data generated by the questionnaires. It considers response rates, potential non-response bias

and social desirability bias, and gives details of exploratory analysis and reduction of the data collected by the measurement scales.

## **Chapter 6: Preliminary analysis**

### **6.1 Introduction**

In the last chapter, general methodology issues were discussed, and a description and justification was offered for the methodology chosen for the current study. In the final section of chapter 5, sampling issues were discussed. Chapter 6 provides a logical progression from chapter 5 first addressing how the research instruments were distributed to the members of the sample, the size of the sample and response rates to each of the questionnaires. Section 6.3 addresses the question of representativeness, dealing with the major threats to representativeness of non-response and social desirability. This section includes investigation of the data for the existence of these types of bias. An introduction to reliability and validity of measurement scales and results is given in section 6.4, and the approach taken to investigating these concerns in this thesis is outlined. In section 6.5, the results of exploratory data analysis are given. The objectives of this analysis were the assessment of reliability and validity and the reduction of the data in order to facilitate further statistical analysis in subsequent chapters. Finally, in section 6.6, the cross-product methodology, which will be used in the next two chapters to test hypotheses involving independent variables which have an interactive effect on the dependent variable, is explained.

### **6.2 Distribution, sample size and response rates**

#### **6.2.1 Introduction**

Section 6.2 addresses questionnaire administration issues and methods. The purpose of this introductory section is to outline the ways in which questionnaire administration can influence the quality and quantity of response. The remainder of section 6.2 describes the actual methods used and the sample size and response rates achieved.

Inadequate response rates by accounting practitioners has been acknowledged as a major problem facing accounting researchers (Collier and Olusegun Wallace, 1992). Some studies have used students as surrogates for practitioners in order to overcome this problem. This, however, is generally thought to be an inadequate approach. In the light of the problem, it

makes sense to design studies in ways which maximise the chances of achieving reasonable response rates, rather than relying only on the detecting and dealing with non-response bias after collecting the data. There are many studies which have empirically examined factors associated with improved response rates. Yu and Cooper (1983) conclude that prepaid monetary incentives, the offer of non-monetary rewards, notifying respondents prior to the survey, and addressing letters to specific individuals are effective ways of improving response rates. In accounting research, Collier and Olusegun Wallace (1992) suggest factors influencing speed and rates of response include a properly designed and pretested questionnaire which incorporates an appeal for assistance, guaranteed anonymity and advertisement of the support of a reputable institution. While the design of the current study does incorporate some of these elements such as careful design and pretesting (discussed in chapter 5), guaranteed anonymity, advertisement of ICAEW and University of Nottingham support, there are other variables such as offering rewards, addressing letters to individuals, etc. that could not be employed. In fact, many decisions regarding questionnaire administration methods used in this study were dictated by the nature of the access available to the trainee accountants. The lack of empirical studies of UK trainees is testimony to the fact that it has been very difficult to obtain access to them. The essentially practical approach taken in this study was to employ as many of the methods of obtaining and maintaining a decent response rate described above within the constraints of the nature of the access granted by the ICAEW.

### **6.2.2 Distribution**

Access to the trainee Chartered Accountants was granted by their employing firms, and more specifically, by the training partners. The questionnaires were colour coded for size of firm - large, medium or small depending on the number of partners. Bundles of questionnaires were sent to participating firms for distribution to the subjects by the training partners. The researcher therefore had no direct control over the specific conditions in which the questionnaires were completed. The training partners were, however, asked to instruct trainees to complete them in their own time. In the view of the way time is treated as a precious resource in the profession (Coffey, 1994b), it is likely that the majority of questionnaires were therefore self-administered. Questionnaires were returned by trainees directly to the researcher in a reply-paid envelope, one of which was included with every copy of the questionnaire. This ensured that potential bias arising from the possibility of partners viewing individuals' responses was avoided.

The first questionnaire was administered in January 1995, the second in April 1996 and the third in August 1997. In order to divide up the Training Contract period strictly equally, questionnaires would have been administered in September 1994, March 1996 and September 1997. There were various reasons why the research did not follow this strict pattern. In the first instance, training partners could not guarantee questionnaire distribution to trainees until they had returned from their induction courses. Many firms send trainees on intensive study courses at external tutors immediately on joining. These courses typically do not end until Christmas. Questionnaires were therefore administered to the whole group in January 1995. Recognising that a potentially important period of three months would thus be omitted from the study, a control test was designed. A local firm granted permission to interview a number of graduate trainees immediately on joining in September 1994 and then again in January 1995. The interviews were of a semi-structured nature, covering the same range of issues as were included on the first questionnaire. Their purpose was to assess the possibility of significant change in ethical or general work attitudes over the four month period. Analysis of the interview transcripts reveals no such change<sup>1</sup>. The remaining two questionnaires were then distributed so as to divide up the remaining time period while ensuring that all subjects would receive the final questionnaire before their Training Contracts were completed.

### 6.2.3 Sample size

The first questionnaire was distributed to 136 firms. The total number of firms participating in the study decreased to 131 for the second intervention, and then to 116 by the third. The majority of firms who withdrew did so due to trainees leaving and there being no remaining trainees. Trainees left their firms for a variety of reasons, some associated with lack of success in the professional examinations. Information regarding the trainees' reasons for withdrawal was not available to the researcher.

It is not possible to give exact numbers for sample size, as the researcher did not know the number of trainees employed by each participating firm. Sample sizes were, however, estimated based on the number of questionnaires distributed and the number of excess copies returned blank by training partners. This is discussed further in the next section.

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<sup>1</sup> Interviewees responses to questions in January nevertheless indicated that the four month period was sufficiently long for them to have forgotten their previous answers.



#### 6.2.4 Response rates

The number of trainees employed by each participating firm was not known and could not be supplied by the ICAEW without significant cost. The number of questionnaires required by each firm therefore had to be estimated. In order to ensure each firm had sufficient copies, generous estimates were made, resulting in the number of questionnaires distributed being greater than the number required. Firms were not requested to return excess questionnaires. However, some firms did so, and the number thus returned were subtracted from the total distributed in the response rate calculations. Tables 6.1 to 6.3 give details of the number of questionnaires distributed, the number of excess copies returned, the number of completed returns, and response rates for each questionnaire split between the different firm sizes.

*Table 6.1: Year 1 questionnaires*

Firm size	No. of firms	No. of questionnaires	No. of excess copies returned	No. of completed returns	Percentage (%) response
TOPP	2	30	--	13	43.3
Small	42	235	24	48	22.7
Medium	58	700	157	100	18.4
Large	34	1380	307	232	21.6
<b>Total</b>	<b>136</b>	<b>2345</b>	<b>488</b>	<b>393</b>	<b>21.2</b>

*Table 6.2: Year 2 questionnaires*

Firm size	No. of firms	No. of questionnaires	No. of excess copies returned	No. of completed returns	Percentage (%) response
TOPP	2	21	--	6	28.6
Small	37	115	25	15	16.7
Medium	55	407	82	57	17.5
Large	37	994	250	121	16.3
<b>Total</b>	<b>131</b>	<b>1537</b>	<b>357</b>	<b>199</b>	<b>16.9</b>

*Table 6.3: Year 3 questionnaires*

<b>Firm size</b>	<b>No. of firms</b>	<b>No. of questionnaires</b>	<b>No. of excess copies returned</b>	<b>No. of completed returns</b>	<b>Percentage (%)response</b>
TOPP	2	21	-	4	19.0
Small	32	92	25	12	17.9
Medium	48	219	95	32	25.8
Large	34	786	226	87	15.5
<b>Total</b>	<b>116</b>	<b>1118</b>	<b>346</b>	<b>135</b>	<b>17.5</b>

Table 6.4 summarises information on the final data set, including response rates for each year and calculation of the response as a percentage of the total population. The estimated response rates using the method described above were 21.2%, 16.9% and 17.5% for years one, two and three respectively. The response rates for the second and third questionnaires are likely to be significantly more realistic than for the first questionnaire. This is because the researcher was able to assess the number of questionnaires likely to be needed by firms with a degree more accuracy - the number of questionnaires distributed therefore fell significantly, without the sample size having decreased. The “real” response rate in the first time period is therefore likely to be significantly higher than 21.2%. This explains why the halving of the response rate calculated as a percentage of the total population is not observed in the response rate calculated as a percentage of the sample.

Often in survey research, the time taken to return a questionnaire can be used to investigate possible non-response bias. Due to the method of distribution it was impossible to know when subjects actually received the questionnaire nor, therefore, when they completed it. Furthermore, the distribution method made it difficult to use traditional direct approaches to increasing the response rate e.g. follow-up letters, although follow-up letters were sent to the training partners to remind them to distribute the questionnaires if they had not already done so. Response rates are discussed further in section 6.3.2 when the issue of representativeness is addressed.

**Table 6.4: The Final Data Set**

<b>Years: Response</b>	<b>Group number</b>	<b>Year 1: no. of cases</b>	<b>Year 2: no. of cases</b>	<b>Year 3: no. of cases</b>
1 + 2 + 3	1	51	51	51
1 + 3	2	24	-	24
1 + 2	3	59	59	-
1	4	259	-	-
2	5	-	89	-
3	6	-	-	60
<b>Total</b>		<b>393</b>	<b>199</b>	<b>135</b>
Conservative response rate		21.2%	16.9%	17.5%
Total population		3520	-	2740
Approx. no. of firms in population		500	-	300
<b>Response as % of population</b>		<b>11.2%</b>	<b>-</b>	<b>4.9%</b>

### 6.2.5 Longitudinal matching

An important aspect of this research was the use of date of birth to allow the matching of respondents' questionnaires across the three interventions so that change at the *individual* level could be monitored. This was performed using the SPSS(X) merge file procedure. Each match was verified by reference to *place of birth* and, in some cases, the hand-writing on the questionnaire. Spurious matches were deleted (between 2 and 5 each year). A single data file was therefore created which contained every response. To allow different types of cross sectional and longitudinal analysis, they were grouped as detailed in Table 6.4 above - group 1 contained only subjects who had responded in all three years, groups 2 and 3 consisted of subjects who replied twice and the remaining groups 4, 5 and 6 held subjects who had replied in one year only. A total of 110 of the original 393 respondents completed the second questionnaire (groups 1 and 3), and of the 110, a further 59 dropped out leaving 51 who had completed all three questionnaires. There were, however, 75 subjects present at the start and the end of the study (groups 1 and 2).

## **6.3 Representativeness**

### **6.3.1 Introduction**

The issue of representativeness concerns whether the responses of the study's sample are representative of the population as a whole. In scientific research, a Chi-square test of the population is commonly used to assess representativeness. However, this is problematic in the social sciences due to lack of information about the population. Furthermore, the importance of representativeness in the strictest statistical sense can diminish depending on the nature of the research. For instance, the aim of this research is to explore the nature of the relationships between ethical decision-making and various influential factors, not necessarily to formally predict the characteristics of the population itself. Nevertheless, the issue of representativeness is concerned with the way errors can arise as a result of the research process. These potential errors must be investigated to ensure that conclusions drawn from the study are well-founded.

There are two main sources of error of measurement. Sampling is the first source of error. Sampling error represents the possibility that the characteristics of the sample may be significantly different in some way to those of the population from which the sample is drawn. It arises from errors in selecting the sample e.g. inappropriate sampling frame, insufficient sample size, lack of randomness, etc. The second source of error is non-sampling error which arises either from missing people (non-response), missing data (important variables omitted from the research instrument) or misleading data (measurement error). Measurement error can be random, resulting from careless completion of questionnaires, or systematic as in the case of biases such as social desirability or common method variance.

The sampling process for this study was described in detail in chapter 5. The chances of this process generating any significant sampling error are thought to be minimal for a number of reasons. First, the sampling frame consists purely of trainee chartered accountants who are members of the total population of trainee chartered accountants. A subset of the population is therefore being examined directly, rather than using, for example, a convenience sample of students as a proxy for population members. Second, there is no reason why the intake year of 1994 should not be typical of graduate recruits to the profession in the 90's, say. Third, a large sample was used. The initial imputed sample size of about 1800 students represents

about half of the total population of 3520. Any problems concerning sample size are more likely to arise from non-response, discussed separately later in this section. The only realistic possible source of sampling error arises because the sampling frame consists of firms who had agreed in advance that they were willing to participate in an ethics study<sup>1</sup>. It is argued that this is unlikely to cause sampling error as it was the partner who expressed an interest in ethics rather than the trainees who would actually be participating in the current study. Further, there were no particular patterns in terms of firm size or location present in the self-selected sample: There was a good spread of size and types of firm from across England and Wales, including 4 of the “big 6” firms<sup>2</sup>. Tables 6.1 to 6.3 give the split of numbers of small, medium and large firms, classified by number of partners, for each year. These were not predominantly London offices, rather they were spread across the country.

The second source of error is non-sampling error. The next sections address different types of non-sampling error which might arise in the current study. Sections 6.3.2 and 6.3.3 address non-response bias and social desirability bias. A rigorous approach to, and examination of, the latter is particularly important in the field of ethics research. Measurement error is the other main threat to representativeness. It is discussed in section 6.4 in the context of addressing the issues of reliability and validity.

### 6.3.2 Non-response bias

The non-response rate in this study is quite high (ranging between 79% and 83%). Whenever non-response is significant, there is potential for non-response bias. The bias can arise because it is not possible to know with any certainty what the responses would have been for those subjects if they had participated in the study. In the context of ethics research, there is a question of whether the subjects who did respond are ethically distinct from those who did not respond, perhaps by being more interested or concerned about ethics, and therefore more likely to respond. Preliminary examination of the data, however, indicated little evidence of any particular type of ethical profile emerging from the responses as all questionnaire items had a full spread of responses.

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<sup>1</sup> These firms formed a subset of another random sample of firms used by the ICAEW.

<sup>2</sup> A small number of firms recruited very few trainees, perhaps only one or two. Questionnaire respondents were directed to ignore the peer group and socialisation variables where they had no fellow recruits. The effect of this is to reduce the sample size available for regression analysis which includes these variables as predictors. The researcher considers it very unlikely that this has significantly biased the results of the study.

The problem of non-response is quite commonly encountered in large mail surveys, especially in those dealing with a sensitive subject such as ethics. Response rates of 20 to 25%, i.e. a similar magnitude as are found in this study, are commonly reported in the business ethics literature (e.g. Singhapakdi and Vitell, 1993; Nwachukwu and Vitell, 1997; Zaid, 1997). Perhaps a more instructive indication of this study's response rates, particularly with regard to maintenance of rates over time, is provided by the rates calculated with reference to the whole population of ICAEW trainees. Table 6.4 shows that coverage of the total population was 11.2% at the beginning, dropping to 4.9% at the end. Drop-out rates of this magnitude are not unusual in longitudinal studies. For example, Bolton and Drew (1991) report a 44% drop-out from phone interviews over a two year period, LaBarbera and Mazursky (1983) report a 30% drop-out from a questionnaire-based study over only a 5 month period and McCabe et al. (1994) lost 68% of their original population over 1 year.

There are various ways of overcoming the potential research limitation posed by non-response. The most common include first, comparing non-respondents with respondents perhaps by means of an interview (Zaid, 1997) to establish reasons for non-response and second, comparing late responses to early ones for differences. It was not possible to compare early and late responses in this study, due to not knowing when the questionnaires were distributed by training partners. Nor was it possible to know who the non-respondents were, due to anonymity, or to gain access to any of the sample for interview. An alternative approach to examining non-response bias was devised employing the longitudinal research design. It follows a similar approach adopted in longitudinal research by McCabe et al. (1994). In year one, 51 subjects responded who subsequently responded in years two and three. However, 259 others responded who subsequently dropped out. Drop-outs were considered as an approximation to non-respondents. An investigation of any differences between their responses in year one and those of the 51 subjects is one way of investigating for non-response bias. By the same token, one can compare the 51 every-year respondents in year two/three with subjects who only responded in year two/three. Although this method is not ideal, it does provide an indication of potential non-response bias. This was done using independent samples t-tests; the items compared were the responses to the ethical vignettes (14 variables in each year). There were **no significant differences** found at the 5% significance level. Although this is not conclusive evidence of the lack of non-response bias, it is a good indication that the bias is unlikely to affect the data seriously or systematically.

By way of conclusion on the matter of non-response bias, whilst the possibility of non-response bias is a very real problem in business ethics research, there is perhaps a need for pragmatism in order for the research agenda to be moved forward. Hunt (1990) implies that the possibility of non-response bias has been an impediment to the publication of some very interesting work. In a response to Mayo and Marks' (1990) empirical test of the Hunt and Vitell model of ethical decision making, Hunt (1990) concludes that the Academy of Marketing Science "deserve accolades" for publishing the work despite the potential for non-response bias in the data.

### **6.3.3 Social desirability bias**

Social desirability bias is one of the most common sources of bias affecting the validity of survey research findings (Nederhof, 1985; Crowne and Marlowe, 1964). According to Nederhof (1985, p.264):

"Social desirability reflects the tendency on behalf of the subjects to deny socially undesirable traits and to claim socially desirable ones, and the tendency to say things which place the speaker in a favourable light."

In the context of ethics research, the potential for social desirability bias must clearly be taken very seriously. It is commonly understood that it can be split into two factors: self-deception and other-deception, sometimes called impression management (Paulhus, 1984). The distinction is important as it affects the various methods of reducing and detecting the bias.

Nederhof (1985) reviewed methods of preventing or reducing social desirability bias in research design. They are all concerned with methods of offering anonymity to respondents. Anonymity has been convincingly demonstrated to vary inversely with socially desirable responding (Bradburn et al, 1979; Nederhof, 1985; Paulhus, 1984; Randall and Fernandes, 1991). Some of the methods were not applicable to the research design of this study, such as forced-choice items, neutral questions or randomised response technique (RRT). The latter has been commended for use in ethical decision making research in accounting by Gibson and Frakes (1997). They used a scenario approach in which CPA subjects were asked to self-report unethical behaviour using RRT and using the direct self-report method. The comparison of results indicated that individuals were unwilling to directly report unethical

behaviour. A major practical problem with RRT, however, is the reduction of the size of the data set. Given the difficulty, anticipated from the outset of this study, of maintaining a reasonable number of respondents with a longitudinal research design, RRT was not considered practical.

Another method of offering anonymity to respondents discussed by Nederhof is self-administration of questionnaires. He concludes that there is less bias in mail surveys than personal or telephone interviews. In the context of research with trainee Chartered Accountants, it was very important to ensure that subjects' responses were not available to their superiors, either partners or managers. This was done by including post-paid return envelopes addressed directly to the researcher. Questionnaires were not collected by training partners. Furthermore, subjects were also anonymous to the researcher; they never met or spoke to the researcher, all instructions being given in writing. They were never asked to identify themselves by name. Although these measures do not guarantee the removal of social desirability bias (Randall and Fernandes, 1991), they provide practicable methods of reducing it.

Other aspects of the research design can have a potential impact on socially desirable responding. In line with much business ethics research, this study adopts a scenario approach. As already discussed in sections 5.2 and 5.4.2.4, there is a debate in the literature about the appropriateness of the use of scenarios. One of the issues it covers is the potential impact of scenarios in terms of social desirability bias. The main arguments are reviewed next. In their paper on the state of business ethics research, Randall and Gibson (1990) support the use of scenarios as long as they are relevant and realistic. Scenarios have the advantage of being indirect; subjects can be asked about other people's actions, which can help alleviate social desirability bias. Schlacter (1990) specifically recommends the use of such indirect questioning for ethics research in accountancy. He argues that there is likely to be strong social desirability bias in response to high professional expectations of ethical behaviour and that indirect questioning generates higher levels of validity than direct questioning. The benefit of reduction of social desirability bias by the use of scenarios must be weighed against the dangers arising from individual assessment of situations. For example, Marshall and Dewe (1997) conclude that scenarios are not appropriate for research into ethical decision making because they are not universally recognised as representing an ethical situation. It is intuitively obvious that a particular scenario can be interpreted and



understood in many different ways by different individuals. This might be a significant concern if subjects were being asked for a straightforward assessment of whether the scenario represented ethical or unethical behaviour. However, by using a multi-dimensional ethics scale (discussed in section 5.4.3.11), one can capture different aspects of assessment none of which rely on explicit recognition of an ethical situation. The extensive use of, and support for the use of scenarios in business ethics research (see chapter 2) is evidence of their efficacy and practicality. They are generally considered to be a good way of standardising stimulus across respondents and of making decision situations seem more real (Singhapakdi, Rao and Vitell, 1996). Furthermore, they are considered particularly appropriate to the sensitive nature of ethics research (Robertson, 1993).

Having designed the research to minimise socially desirable responses, it remains to attempt to assess the impact of the remaining bias. This study uses the Marlowe-Crowne scale, discussed in chapter 5, section 5.4.3.13, to measure social desirability bias. The Marlowe-Crowne (MC) scale has been used in many studies to measure respondents desire “to look good”, and therefore to assess the possible impact of this bias on their questionnaire responses. The six-item scale was included in the second questionnaire only (because of space limitations). After reversing three of the items where necessary, a total social desirability variable for the six items was calculated with a Cronbach’s alpha of 0.73<sup>1</sup>. This is acceptable as previous research (Crowne and Marlowe, 1964; Fisher, 1967; Paulhus, 1984) has reported average internal consistency (measured by alpha) of the full MC scale ranging between 0.73 and 0.88. On closer inspection, items 1 and 5 had very low item-total correlations. They were deleted and another average social desirability variable computed based on the four remaining items. The alpha for the shortened scale was calculated as 0.82, well within the acceptable range. A four-item sum variable was computed. The higher the score of this variable, the higher the bias. By means of a further check of possible non-response bias, the sum variable was compared, using independent samples t-tests, for the main longitudinal group of 51 subjects and the other 148 year two respondents. There was no evidence of significant difference of means. To investigate the possibility of the scale capturing two factors, self- and other-deception, exploratory factor analysis was used. Although this did produce a two-factor solution, it was very weak, with cross-loadings. It was therefore discarded as meaningless.

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<sup>1</sup> Cronbach’s alpha was calculated based on all 199 year two respondents.

**Table 6.5: Social desirability scale reliabilities**

<b>Scale Item (n=199)</b>	<b>Reverse</b>	<b>Item-Total Correlation</b>
1. No matter who I'm talking to, I'm always a good listener	Yes	0.34
2. I have sometimes taken unfair advantage of another person	No	0.68
3. I am always courteous even to people who are disagreeable	Yes	0.57
4. I sometimes try to get even, rather than forgive and forget	No	0.74
5. I am quick to admit making a mistake	Yes	-0.04
6. I sometimes feel resentful when I don't get my own way	No	0.52
	<b>Alpha</b>	
Alpha for 6-item scale	0.73	
Alpha for 4-item scale (1 and 5 deleted)	0.82	

Nederhof (1985) reports three ways in which social desirability scale data can be used. First, reject the data of high-scoring subjects. Second, correct the data of high scorers and third, merely register the impact of social desirability bias. The last method is appropriate where there is very little evidence of contamination of the data. The next stage was, therefore, to look for such evidence, and then decide upon the appropriate course of action. Correlations between the four-item sum variable and responses to the year two vignettes were examined for the 51 subjects. Correlations ranged between -0.10 and 0.26. None of the correlations were significant at the 5% level, and only one item was significant at 10% (flammable pyjamas item 7 - duty). Furthermore, there was no significant difference in the mean of the social desirability sum variable between male and female respondents<sup>1</sup>, a possibility recently suggested by Cohen et al. (1998) in the context of accounting research. These results provide very little evidence of social desirability contamination. The third method was therefore adopted: To register that there may be some social desirability bias, but that it is not likely to seriously contaminate the data. Any bias that does exist will, in any case, reduce self-reports of unethical judgements, and will therefore lead to a more prudent interpretation of the study results.

<sup>1</sup> Using an independent samples t-test on all year 2 respondents.

## 6.4 Introduction to reliability and validity

Measurement error can arise due to lack of reliability or validity of measurement instruments and results. This section defines these two concepts and outlines the ways in which they can and will be investigated and assessed in this thesis.

### 6.4.1. Reliability

In general terms, reliability is concerned with the extent to which agreement exists between different attempts to measure the same construct. Typically, one would be interested in the repeatability and stability of construct measurement time after time. Test-retest procedures provide the most obvious way of assessing reliability, but often prove impractical in social science research. Cronbach's alpha (Cronbach, 1951), derived from classical scaling theory, provides a more practical and popular way of checking reliability, where alpha is:

$$\alpha = \frac{n}{n - 1} (1 - \sum S_x^2 / S_t^2)$$

where

$n$  is the sample size

$S_x^2$  is the variance of item  $x$

$S_t^2$  is the total scale variance

Alpha assesses the internal consistency of a measurement scale by measuring the extent to which scale items are correlated with each other. The value of Cronbach's alpha varies between zero and one. Values of 0.5 and above are generally considered to be acceptable for exploratory research (Nunnally, 1978).

In this thesis, reliability is assessed in two ways. First Cronbach's alpha is calculated during exploratory data analysis for each factor solution in each time period. As discussed above, acceptable levels of alpha provide evidence of internal consistency of measurement scales. Second, the longitudinal context of the study affords the relatively rare opportunity to conduct some test-retest reliability procedures. Generally, consistent factor structures and regression results over time are an indication of test-retest reliability. The usefulness of such an approach to investigating reliability depends crucially on the time elapsing between

research interventions. If too short, subjects may repeat remembered responses. This is almost certainly **not** the case in this study. If too long, however, real changes in attitudes may alter factor structures and regression results, rendering test-retest procedures useless. Bearing in mind that the *a priori* expectation of this study is that some of the variables will change over what is a relatively long research time frame, test-retest analysis for reliability will be applied cautiously and with particular emphasis on relatively stable constructs such as personal values.

#### **6.4.2. Validity**

Validity is concerned with whether an instrument is measuring the intended construct. It is possible to conceive of a scale which is highly reliable in repeated trials, but about which there remains uncertainty over whether it really measures that which the researchers intended. In the case of factual questions, it is possible to use a range of external checks to assess validity. When the nature of the constructs are abstract, problems of assessing validity are greatly magnified. In all research, however, the validity of the conclusions are crucially dependent upon the validity of the measurement instruments. A subjective “common-sense” examination of the measurement scale items is sometimes adopted to provide “face validity”. This is generally not considered to provide adequate assurance of validity. Oppenheim (1992) categorises validity into four types:

1. *Content validity*- concerned with whether the questions used provide a well-balanced coverage of the domain of the theoretical construct.
2. *Concurrent validity* - concerned with the correlation of the measure with other validated measures of the same construct.
3. *Predictive validity* - concerned with how well the measure can be used to predict the results from another measure of the same construct.
4. *Construct validity* - concerned with how well the measure is linked with theoretical assumptions about the construct or “whether it measures what it is supposed to measure”.

It is generally accepted that the more difficult it is to find external checks or a strong theoretical basis by which to assess validity, the more researchers will focus on content and construct validity. Most of the scales used in this study have been developed elsewhere and used numerous times in previous research. It is, therefore, likely that content validity will be reasonably high. Further, pilot subjects' responses to questions about their understanding of scale items also gave evidence of content validity. Any scale items which were unclear or misunderstood were eliminated at the pilot stage. Concurrent and predictive validity could not be assessed as multiple measures of single constructs were mostly not available and certainly could not fit into the restricted space of the questionnaires. The fourth category is split by some authors (Campbell and Fiske, 1959) into two aspects, convergent validity which is the extent to which different measures of an identical construct give the same results, and discriminant validity which concerns the degree to which measures provide distinction between constructs. These can be judged by examining the results of factor analysis applied to measurement scales: A strong factor solution with few cross-loadings is indicative of discriminant validity as it suggests that the different dimensions are distinct from one another. Strong factor loadings of individual items within a dimension or scale can be taken as indicators of convergent validity.

## **6.5 Exploratory data analysis**

This section first discusses the methods of exploratory data analysis employed in this study, and the rationale for their use, in 6.5.1. Secondly, it provide detail on exploratory data analysis on a scale by scale basis. This is done in sections 6.5.2 and 6.5.3 which cover individual variables and situational variables respectively.

### **6.5.1 Objectives and methods**

The objectives of exploratory data analysis were threefold. The first was assessment of the reliability of the data. As discussed in section 6.4, reliability is concerned with repeatability of construct measurement time after time. Some evidence on the reliability of data used in the current study can therefore be gathered by examining the data generated by the same measurement scales in different years. Reliability can also be checked by examining the data for internal consistency. The second objective of exploratory data analysis was to assess validity, in particular, discriminant validity as discussed in section 6.4. The amount of data collected by the three reasonably lengthy questionnaires was large and somewhat unwieldy.

The third objective of exploratory data analysis was, therefore, data reduction. This was needed to facilitate the analysis of the data and the testing of hypotheses generated in chapter 4.

The main methods of exploratory data analysis were the application of exploratory factor analysis (EFA) and the calculation of Cronbach's alpha. EFA was used to explore the underlying dimensions in lengthy, multi-dimensional scales. No strict *a priori* constraints were imposed, although the results were compared to dimensions reported in previous research developing or using the scales. These conceptual insights were used to offer some help in the assessment of validity of the factor analysis results. In cases where previous research had reported unidimensionality of scales, EFA was used to confirm this. EFA was not used on simple, short scales (three items or less). On the basis of the discussion in section 6.3.1 which concluded that there were no significant differences between respondents and non-respondents, EFA was applied to the whole group in each year, rather than only to the longitudinal group of 51 subjects. This meant that potential problems arising from the relatively small sample size could be avoided for cross-sectional testing.

The scales were subjected to principal components factor analysis on SPSS using an orthogonal (VARIMAX) rather than an oblique rotation. Hair et al. (1995) note that there is no compelling reason to favour one rotational method over another, but that the choice should be made in the basis of the nature of the research. For example, they suggest that where factors are to be used in subsequent regression analysis, as is the case here, orthogonal rotations are most appropriate as they have the advantage of generating uncorrelated factors, thus reducing the potential for multicollinearity. The appropriateness of using factor analysis can be appraised with reference to two particular criteria. The first is the percentage of variance explained by the factors. Hair et al (1995) note that in the social sciences, values of 60% or greater are generally considered acceptable. The second measure is the Kaiser-Meyer-Olkin (KMO) statistic which measures the degree of correlation between variables. It is a measure of sampling adequacy, acceptable at values of 0.6 and above. The number of factors extracted was decided with reference to the "eigenvalues-greater-than-one" or latent root criteria, and to the scree plots. The main alternative to the latent root criteria is to specify in advance the number of factors to be extracted on the basis of a theory or hypothesis. While this has the advantage of eliminating spurious or meaningless factors which EFA can have a tendency to generate, it can deny the researcher the opportunity to

explore the full scope of the data. The approach taken in this thesis, therefore, is to adopt the traditional latent root criteria but to compare EFA results carefully to conceptually defined dimensions during the interpretation stage.

Regarding factor loadings, the relationship between variable and factor, Hair et al. (1995) provide guidelines as to appropriate loadings for different sample sizes. Guidelines relevant to the sample sizes in this study are reproduced in Table 6.6 below. Generally, lower factor loadings can only be considered significant with larger samples. Throughout exploratory factor analysis on current study data, Hair et al.'s guidelines regarding significant factor loadings are employed with the exception that 0.4 is the lowest significance accepted.

*Table 6.6: Hair et al.'s (1995) guidelines for identifying significant factor loadings*

<b>Factor loading</b>	<b>Sample size needed for significance</b>
0.30	350
0.40	200
0.50	120
0.65	70
0.75	50

Once factor structures had been produced, Cronbach's alpha was calculated for the factors as a primary indicator of reliability. Although one cannot calculate the correlation between scale items and the underlying dimension represented by the factor, one would expect a factor to be internally consistent in terms of its constituent variables. Rooted in classical scaling theory, Cronbach's alpha is the measure usually associated with internal consistency tests of reliability. Oppenheim (1992) states that the coefficient alpha, varying between 0 and 1, measures the proportion of the variance which is not caused by error; it therefore represents the reliability of the scale. For research of an exploratory nature, values for alpha of 0.5 and above are generally considered acceptable (Nunnally, 1978). Alpha values were calculated omitting cross-loading variables (where one variable loads onto more than one factor).

EFA's were performed for the measurement scales in each of the years for which data were available. In most cases, the application of EFA in different years generated different factor structures. This raised an important methodological problem - how to deal with varying

factor structures in subsequent empirical analysis. There is very little guidance in the literature on the best approach to take since there are so few empirical, longitudinal studies using attitudinal measurement scales. Various options were identified. First, a single factor structure from one of the years could be imposed on all three years' data. A major problem with this approach is that it can result in crude over-simplifications of the data. Second, different factor patterns arising in different years could be accepted, interpreted and factor means calculated. The main drawback of this approach is that it limits the degree of longitudinal comparability, which is a major focus of the current study's research design. A third approach is to conduct separate EFAs and compare the results to identify factorial dimensions common to each year. This approach has been used successfully in cross-cultural research to identify dimensions common to different cultural groups (e.g. Miller et al., 1981; Cui, 1997). This thesis contends that the approach can usefully be transposed to a longitudinal context and that it represents a practical methodological compromise. The main weakness of this approach is similar to, although not as serious as the problems of imposing a single factor structure to different sets of data. Namely, it can ignore valid, "real" changes in factor structure over time. Prior knowledge of this potential problem, however, enabled the researcher to look for evidence of changing factor structures during the procedure of identifying consistent factors across years. Such evidence was found in the case of one of the scales, the job characteristics index which is discussed further in section 6.5.4.

Four criteria were applied in the identification of scale items belonging to factor structures common to each year, henceforth called "emergent factors". First, there had to be a consistent relationship between the item and emergent factor in each year. Second, the item had to load significantly on the factor and third, it could not cross-load significantly on any other factor. Finally, the item had to be a member of a consistent group of items for each year. Once emergent factors had been identified, other scale items were eliminated and factor means calculated<sup>1</sup>. Initial reliability was assessed by calculating alpha values for the emergent factors and by conducting repeated EFAs on the reduced set of scale items. As a check on the emergent factor approach, "*a priori*" factor means were also calculated on the basis of conceptually defined dimensions.

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<sup>1</sup> Factor means were chosen over factor scores as they are more suitable, based on criteria discussed by Hair et al (1995), for the current study. Hair et al. note that factor means are probably best in situations where comparability between samples is required (such as in the current longitudinal context) and where only certain variables making up a factor e.g. the highest loading variables, are to be included in subsequent data analysis - this is the situation with the emergent factor approach described above.



The remainder of this chapter details the basic structure and statistics associated with the exploratory data analysis and the identification of the emergent factors. It proceeds in the order of Table 5.6. For ease of reference, a summary of the measurement scales is given in Table 6.7. In the case of simple scales, where scale development and previous research has not revealed any further dimensions, factor analysis was applied in the expectation of finding unidimensionality. In these cases, scale averages and alpha coefficients were calculated for the purposes of data reduction and checking internal consistency respectively. Subsequent use of factor solutions in hypothesis testing is covered in chapters 7 and 8. The main concerns of the remainder of this chapter are the general acceptability, reliability and validity of the scales.

### **6.5.2 Exploratory data analysis of individual variables**

#### *Materialism*

Richins' empirical analysis on his materialism scale generated two dimensions, a personal materialism factor and a general materialism factor. EFA on the current data in the first and third years only revealed one factor. The reliability of the 4 statements measuring personal materialism, however, was higher than that of the 6-item scale. A four-item factor mean was therefore calculated ("permat").

#### *Firm and professional commitment*

Firm commitment was measured in each time period whilst professional commitment was included only in the first year. EFA of professional commitment in year 1 and of firm commitment in years 1 and 2 revealed uni-dimensional structures, as expected from theory. In year 3, however, a second factor explaining 15.4% of the variance in firm commitment appeared. Details are given in Table 6.8. The second factor consisted of two items which capture the degree of willingness to make personal efforts for the firm. Alpha for this factor, however, was only 0.51. In the light of this, and in the absence of any conceptual basis for a multidimensional scale, it was decided to treat the scale as unidimensional (alpha=0.84). Recalling that the firm and professional commitment were shortened versions of previously validated scales, the reliability of the shortened scales appeared to be reasonable (alpha above 0.8 in all analyses). The item scores were therefore averaged to produce indices for firm and professional commitment ("fcommt1/2/3" and "pcommt").

*Table 6.7: The measurement scales*

<b>Construct(s)</b>	<b>Variables</b>	<b>Item statements</b>
<b><i>A priori factors</i></b>		
<u>Materialism</u> <i>Personal</i>	mat1 mat2 mat3 mat4	It is important to me to have really nice things. I would like to be rich enough to buy anything I want. I'd be happier if I could afford to buy more things.
<i>General</i>	mat5 mat6	It sometimes bothers me that I can't afford to buy all the things I want. People place too much emphasis on material things. It's really true than money can buy happiness.
<u>Firm commitment</u>	fcommt1 fcommt2 fcommt3 fcommt4 fcommt5 fcommt6 fcommt7	I am willing to put in a great deal of effort beyond that normally expected in order to help my firm be successful. I would accept almost any type of job assignment in order to keep working for my firm. I find that my values and the firm's values are very similar. I am proud to tell people that I am part of this firm. This firm really inspires the very best in me in the way of job performance. I am extremely glad that I chose this firm to work for over others I was considering at the time I joined. I really care about the fate of this firm.
<u>Social power</u> <i>Reward power</i>	pwr rwd1 pwr rwd2	If I do not comply with managers and partners in the firm I will not be rewarded e.g. with extra salary or appropriate career development. I want to do as the managers and partners suggest because of the good things they'll give me for complying e.g. salary rise, exam funding, etc.
<i>Reference power</i>	pwr ref1	In general the opinions and values of the managers and seniors-in-charge are similar to mine.
<i>Coercive power</i>	pwr ref2 pwr crc1 pwr crc2 pwr crc3	Being similar to my managers in my opinions and values is good. Partners and managers can harm me in some way if I do not do as they wish. If I do not do as staff senior to me in the firm tell me, they may hinder my career development or salary prospects. Something bad will happen to me if I don't do as the manager on a job requests and he finds out.
<i>Expert power</i>	pwr xpt1 pwr xpt2	I trust the judgement of managers and partners in this firm. On an audit issue, the manager's expertise makes him/her more likely to be right.
<i>Legitimate power</i>	pwr lgt1 pwr lgt2	It is my duty to comply with managers and partners in the firm. Because of the partners' positions they have the right to influence my behaviour.
<u>Role conflict/role ambiguity</u> <i>Role ambiguity</i>	ra1 ra2 ra3 ra4 ra5 ra6	I have enough time to complete my work. I feel certain about how much authority I do or do not have. There are clear, planned goals and objectives for my job. Generally, I know that I have divided my time appropriately in my job. I know exactly what is expected of me. Explanations of what has to be done in my job are clear.
<i>Role conflict</i>	rc1 rc2 rc3 rc4 rc5 rc6	I sometimes have to do things that I believe should be done differently. I sometimes have to bend a rule/policy in order to carry out an assignment. I work with two or more groups who operate quite differently. I do things that are apt to be accepted by one person and not accepted by another. I receive an assignment without adequate resources and materials to execute it. I work on unnecessary things.

**Table 6.7: The measurement scales (continued)**

<b>Construct(s)</b>	<b>Variables</b>	<b>Item statements</b>
<b><i>A priori factors</i></b>		
<b>Job characteristics</b>		
<i>Feedback</i>	jcifbk1 jcifbk2	To what extent do you find out how well you are doing on the job as you are working? To what extent do you receive information from your superior on your job performance?
<i>Autonomy</i>	jciaut1 jciaut2	How much are you left on your own to do your own work? To what extent are you able to act independently of your supervisor in performing your job function?
<i>Identity</i>	jciid	How often do you see projects or jobs through to completion?
<i>Variety</i>	jcivar1 jcivar2	How much variety is there in your job? How repetitious are your duties?
<i>Friendship</i>	jciami1  jciami2	How much opportunity is there in your job to meet individuals with whom you would like to develop friendships? To what extent do you have the opportunity to talk informally/socially with other employees while at work?
<i>Interpersonal</i>	jcioth1 jcioth2	How much of your job depends on your ability to work with others? To what extent is dealing with other people a part of your job?
<b>Organisational values</b>		
<i>Leadership value</i>	orgval1 orgval5 orgval6 orgval8	High staff morale The firm's stability Leadership within the firm The firm's reputation
<i>Productivity value</i>	orgval2 orgval4 orgval9	Efficiency of the firm Profit maximisation The growth of the firm
<i>Service value</i>	orgval3 orgval7	Firm's value to the community (business or general) Service to the public
<b>Firm's ethical values</b>	fethic1  fethic2	If an manager in my firm was discovered to have engaged in professionally unethical behaviour that resulted primarily in personal gain, I would expect that he/she would be promptly reprimanded. If an manager in my firm was discovered to have engaged in professionally unethical behaviour that resulted primarily in gain to the firm, I would expect that he/she would be promptly reprimanded.
<b>Socialisation</b>	soczn1 soczn2 soczn3 soczn4 soczn5 soczn6 soczn7 soczn8	As a year group, most of us care about how the others are getting along. Work is made more enjoyable through being part of a group. The support of my year group is important to me at work. I spend most of my social life with my year group I feel like I belong to, and am a part of my firm. Socially, I try to get away from work and colleagues. As a group, we're all in this together and try to help each other pull through. If I have a problem with some exam study, I ask another member of the group for help before asking a tutor.
<b>Acceptance by co-workers</b>	accpt1 accpt2	Members of my group try to involve me in conversations about things at work. I don't think members of the group feel relaxed when they are with me.
<b>Conformity motivation</b>	conform1 conform2  confrom3	I find that I pick up expressions and jargon used by other members of the group. If I'm not sure how to deal with a situation at work, the opinions of other group members act as a guide. It's important to me to fit in with my year group at work

**Table 6.8: Year 3 firm commitment EFA**

Scale item - firm commitment	Year 3: n=132	
	Factor 1	Factor 2
I am willing to put in a great deal of effort beyond that normally expected in order to help my firm be successful (fcommt1).		0.73
I would accept almost any type of job assignment in order to keep working for my firm (fcommt2).		0.84
I find that my values and the firm's values are very similar (fcommt3).	0.69	
I am proud to tell people that I am part of this firm (fcommt4).	0.82	
This firm really inspires the very best in me in the way of job performance (fcommt5).	0.82	
I am extremely glad that I chose this firm to work for over others I was considering at the time I joined (fcommt6).	0.78	
I really care about the fate of this firm (fcommt7).	0.82	
% of variance explained by factor	53.4	15.4
Alpha coefficient	0.87	0.51
Alpha for factors 1 and 2 together	0.84	
Sampling adequacy	0.84	

### *Locus of control*

No exploratory data analysis of locus of control data was necessary due to the nature of the scale. The score on Rotter's scale is a simple sum of the number of external choices ("locsum"). No test-retest analysis could be performed since the measure was included only in one questionnaire. The measure's reliability has, however, been demonstrated in the many studies in which it has been employed.

### *Personal values*

The personal values construct was central to the testing of a number of the hypotheses developed in chapter 4. It was important, therefore, that exploratory data analysis was conducted particularly thoroughly. Specifically, the reliability and validity of the scale needed to be assessed and decisions made about the most appropriate way to reduce the data it produced for subsequent analysis. The ten-item terminal values scale was included in the first year and nine of the ten in the last year. As discussed in section 5.4.3.1, "salvation" was omitted as it did not appear, on the basis of analysis of year one data, to be particularly salient to the young population.

Since personal values are thought to be relatively stable over time, test-retest reliability procedures could be applied to the scale. The results are presented in Table 6.9. First,

bivariate correlations were computed between identical scale items used in different time periods. All the correlations were significant at the 5% level and most at the 1% level. Second, coefficient alpha was calculated on an item-by-item basis generating nine two-item scales e.g. item one in years 1 and 3. The values ranged from 0.41 to 0.72. Third, overall reliability was examined by calculating alpha for the whole (9-item) scale in each period. This yielded values of 0.73 and 0.71 in the first and third years respectively. Although ideally, all the bivariate correlations would be significant at 1% and all coefficient alpha values high, taken together, the results create an overall picture of acceptable scale reliability. In the next paragraph, data reduction on the personal values scale are discussed. Exploratory factor analysis was used in the same manner as for other scales, to discover emergent factors. Whilst EFA results primarily in data reduction, the extent to which factor structures are consistent across time also provides further evidence of test-retest reliability.

*Table 6.9: Test-retest reliability statistics for the personal values scale*

Scale item - personal values	Correlation coefficient Year 1/Year 3		Significance (p)
A sense of accomplishment	0.57		0.00
Equality (equal opportunity for all)	0.57		0.00
Family security (taking care of loved ones)	0.55		0.00
Freedom (free choice, independence)	0.26		0.02
Inner harmony (peace of mind)	0.42		0.00
Pleasure (an enjoyable, leisurely life)	0.29		0.01
Self-respect	0.58		0.00
Social recognition	0.50		0.00
Wisdom (a mature understanding of life)	0.27		0.02
Scale average	0.66		0.00
Whole scale alpha	Yr 1: 0.73	Yr 3: 0.71	

As discussed in chapter 2, there are very few empirical studies of ethical decision making which employ values as the main driver of ethical judgement. As already discussed, there have been problems associated with the ipsative nature of the scale. This study, therefore, used a Likert format. Because of this alternative scaling approach, there were various

options available regarding exploration and reduction of the data. McCabe et al. (1991) note that previous research has tended to focus on unidimensional conceptions of values by examining the influence of specific, usually work-related, values on ethical decision making (e.g. Weber, 1991). They support the notion that different values may influence behaviour in different situations and that it is important, therefore, not to attempt to predict in advance which values might influence ethical decision making. With this consideration in mind, EFA was applied to the current study personal values data to investigate the possible existence of particular value dimensions or hierarchies. Results of EFA are given in Table 6.10. Similar factor structures emerged in both years for which data were available. In both cases, the data generated three factors explaining 56.1% and 60.1% of the variance. The first factor, explaining one third of the variance in each year, comprised four values - a sense of accomplishment, self-respect, social recognition and wisdom. The first of these four, however, crossloaded with the second factor in year one, so was disregarded for the purpose of identifying emergent factors. The key elements in the second factor were family security and peace of mind. A third value, freedom, also appeared to be associated with the factor but crossloaded with the third factor in year one. The third factor comprised a single value, that of pleasure. It was retained as a factor not only because of an eigenvalue greater than one, but also because of its very high loading on the factor (0.87 and 0.96 in years 1 and 3). Regarding interpretation of the factors, factor one comprised self-focused values which might be associated with work or career whereas factor two consists of more general values. The third factor captured a hedonism dimension. Alpha was calculated for the emergent factors (where possible). Factor one yielded acceptable coefficients, but factor two seemed weaker. Nevertheless, factor means were calculated for subsequent use (“valwork”, “valgen” and “valhed”).

As discussed in section 2.4.2, Kilby (1993) has proposed that there is a relationship between degree of overall strength of conviction about values and ethical judgement and behaviour. The second approach to data reduction which the Likert scale allows is, therefore, to calculate a simple sum total of all the values for each subject which forms an index of strength of conviction (SOC or “valsoc1/3”). This approach was adopted successfully in Akaah and Lund’s (1994) research into personal and organisational values. Whilst the two approaches (EFA and strength of conviction index) are not conceptually mutually exclusive, the risks of multicollinearity effectively mean that they must be used as alternatives in subsequent empirical analysis.

**Table 6.10: Personal values scale EFA**

Scale item - personal values	Year 1: n=389			Year 3: n=135		
	Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
A sense of accomplishment	0.51	0.51		0.71		
Equality		0.75		<i>Dropped due to low communality</i>		
Family security		0.61			0.66	
Freedom		0.48	0.50		0.70	
Inner harmony		0.51			0.67	
Pleasure			0.87			0.96
Self-respect	0.69			0.69		
Social recognition	0.81			0.76		
Wisdom	0.63			0.63		
% of variance explained by factor	33.2	11.8	11.1	34.7	13.8	12.6
Alpha coefficient	0.63	0.59	--	0.70	0.50	--
Sampling adequacy	0.80			0.73		
Alpha for emergent factors	0.63	0.43	--	0.65	0.36	--

A third and final approach to data reduction of the personal values scale is to follow the “differential value ranking index” approach (DVRI) adopted by Tetlock (1986), Brief et al. (1991), McCabe et al. (1991) and McCarthy (1997). Tetlock (1986) and Brief et al. (1991) have shown that value contrasts i.e. the difference between rankings, are predictive of choices on public policy issues and on an ethical dilemma respectively. In all of these studies, DVRI was calculated by subtracting the “equality” ranking from the “comfortable life” ranking. The higher subjects ranked prosperity over equality, the more they opposed higher redistributive taxes to help the poor in Tetlock’s study, and the more they chose an unethical response in Brief et al.’s study. The DVRI approach could not be perfectly replicated in the current study, however, for two reasons. First, “comfortable life” was not one of the terminal values included in the shortened RVS scale used in this study. Instead, “pleasure” was used as a proxy. This was considered to be reasonable since both values focus on the individual’s well-being. Thus the DVRI was calculated by subtracting “equality” from “pleasure”. Second, all the studies using the DVRI had employed the ipsative ranking scale rather than a Likert format. It is unclear from a theoretical point of

view, whether this difference should have a material impact on validity or reliability<sup>1</sup>. For this reason, the DVRI is used in the current study in an exploratory manner.

### *CMD*

Although none of the research hypotheses involve CMD as the driver of ethical judgement, as discussed in chapter 5, a measure of CMD was developed and included in the questionnaire. The reason for its inclusion was that it would provide an interesting comparison to the values construct. Exploratory factor analysis of the first year data generated three factors explaining 65.3% of the variance. Whilst this might indicate an acceptable solution from an exploratory point of view, the KMO measure of sampling adequacy was only 56%, two of the items loaded on more than one factor and only one of the factors had an alpha value over 0.50. Further, alpha calculated for the seven scale items taken together also resulted in a low value (0.46). Due to these results and mindful of the much simplified nature of the scale, it was decided not to include the shortened CMD measure in subsequent questionnaires. Further, the year one CMD data were not considered to be adequately valid or reliable for use in subsequent multivariate statistical analysis. This was unfortunate, in that it meant that CMD could not be compared to the values basis of ethical judgement. This comparison was, however, very much a secondary aim of the research - the inability to conduct it did not represent a significant hindrance to the attempt to answer the key research questions driving the study.

### **6.5.3 Exploratory data analysis of situational variables**

In section 6.5.3.1, the details of exploratory data analysis is given for each measurement scale. A brief summary of this analysis is presented in 6.5.3.2.

#### **6.5.3.1 Exploratory data analysis details**

##### *Social power*

The next section of the questionnaire concerned issues relating to social power over the trainees held by senior personnel in the firms. French and Raven's conceptualisation (1959) of social power used in the questionnaire implies five dimensions of power. EFA revealed only three dimensions in the first and second years, accounting for 55.4% and 60.2% of the variance, and four dimensions in the third year, accounting for 66.6% of the variance.

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<sup>1</sup> The correlation coefficient for DVRI1 with DVRI3 was 0.35, significance level  $p=0.002$  ( $n=51$ ).



Details are given in Table 6.11. Whilst it is perhaps unsurprising that the use of a condensed version of the scale should give a condensed factorisation and some cross-loadings, some interesting observations can be made on the changing factor structures. The consistent elements in each year are the three coercive power elements, the two legitimate power items, concerning the right of influence of managers/partners, and the two reference power items. Reward and expert power items change their position in relation to the factors, and cross-load in a number of cases. In the first and second years, there appears to be a relationship between reward and coercive items. Taken together, these items reflect different aspects of reinforcement. In the third year, however, the first reward items crossload on the coercion factor and on what appears to be a somewhat spurious fourth factor (alpha only 0.37), while the second reward item loads weakly on factor three consisting of the legitimate power items. While it is possible that an explanation for the instability of the factor solutions, and for the changing location of the expert items, may lie in trainees' changing perceptions of social power in the workplace, there is no obvious interpretation. The most prudent course of action is, therefore, to calculate factor means for the consistent, emergent factors ("pwr crc", "pwr ref" and "pwr lgt"). Alphas ranged from 0.53 for legitimate power to 0.80 for coercive power. Additionally, factor means were calculated for the *a priori* dimensions of reward and expert power ("pwr rwd" and "pwr xpt").

### *Role conflict and ambiguity*

Based on previous studies, a two-factor solution was anticipated reflecting ambiguity and conflict. EFA, however, revealed three factors in the first two years, explaining 52% and 59% of the variance in the data, and four factors in the third year explaining 61%. Details are available in Table 6.12. A number of items cross-loaded, particularly the second role ambiguity item ("I feel certain about how much authority I do or do not have") and the fifth role conflict item ("I receive an assignment without adequate resources and materials to execute it"). Further problems arose in the second year when role conflict items five and six were omitted due to low communalities. Reasons for these problems are not readily apparent. The items which consistently load together across the years to form two emergent factors are three role ambiguity items and three role conflict items. The items seem to represent the key ideas behind the ambiguity and conflict constructs. Factor means were calculated for the emergent factors ("raem" and "rcem"). Alpha values ranged from 0.58 to 0.72 for the ambiguity items and from 0.53 to 0.64 for the conflict items. Factor means were also calculated for the six-item role ambiguity and role conflict scales.

**Table 6.11: Power scale EFA**

Scale item - power	Year 1: n=393			Year 2: n=196			Year 3: n=131			
	Fctr1	Fctr2	Fctr3	Fctr1	Fctr2	Fctr3	Fctr1	Fctr2	Fctr3	Fctr4
pwr rwd1	0.59			0.78			0.53			0.54
pwr rwd2	0.42		0.60	0.70					0.52	
pwr ref1			0.80		0.91			0.85		
pwr ref2			0.70		0.82			0.50		
pwr crc1	0.75			0.75			0.79			
pwr crc2	0.81			0.80			0.87			
pwr crc3	0.74			0.76			0.78			
pwr xpt1		0.51	0.47		0.54	0.44		0.75		
pwr xpt2		0.66				0.80				0.79
pwr lgt1		0.68				0.62			0.58	0.54
pwr lgt2		0.73				0.56			0.85	
% of variance explained	26.7	18.2	10.5	30.8	19.3	10.1	26.2	18.8	12.0	9.6
Alpha coefficient	0.73	0.61	0.59	0.83	0.73	0.52	0.80	0.59	0.61	0.37
Sampling adequacy	0.75			0.74			0.67			
Alpha for emergent factors	0.76	0.53	0.67	0.80	0.78	0.54	0.80	0.55	0.53	

Some consideration was given to the possible reason for the emergence of a fourth factor in the third year. It seemed to be a subset of the conflict items consisting of rc1 (“I sometimes have to do things that I believe should be done differently”), rc5 (“I receive an assignment without adequate resources and materials to execute it”) and rc6 (“I work on unnecessary things”). The factor explained 12% of the variance with alpha of 0.6. It is possible that this factor reflects changes in trainees’ level within the firm and the nature of their work. With increasing seniority comes more responsibility both for one’s own work but also for the work of more junior staff. It might be anticipated that this would generate a more questioning approach to the *modus operandi*, reflected in these scale items. Factor 2 in each of the years did not generate an emergent factor due to low and cross-loadings. Despite this, it could still be identified as a factor relating to the use of time. The item “I have enough time to complete my work” appeared consistently, joined in the first and third years by “generally, I know that I have divided my time appropriately in my job” and in the third year by “I receive an assignment without adequate resources and materials to execute it”. The factor appears to

be highlighting the use of time as an important facet of the work life and experience of trainee Chartered Accountants: In a paper by Coffey (1994b), the “ritual use of time” is said to be one of the profession’s key values, and an important way in which graduates demonstrate commitment and are socialised into the profession. The mean of the three items (“roletime”=MEAN[ra1, ra4, and rc5 reversed]) was computed to reflect the time dimension. With coefficient alpha of only 0.51 in year 1, 0.34 in year 2 and 0.46 in year 3, this scale is used tentatively in subsequent analysis. More empirical research is needed to develop and validate appropriate measurement instruments to investigate this.

**Table 6.12: Role conflict and ambiguity scale EFA**

Scale item -RA/RC	Year 1: n=393			Year 2: n=192			Year 3: n=131			
	Fctr1	Fctr2	Fctr3	Fctr1	Fctr2	Fctr3	Fctr1	Fctr2	Fctr3	Fctr4
ra1		0.48			0.84			0.85		
ra2	0.50	0.41		0.47	0.64		0.67			
ra3	0.74			0.74			0.81			
ra4		0.79		0.51				0.54		
ra5	0.75			0.72			0.73			
ra6	0.76			0.80			0.69			
rc1			0.70			0.70				0.77
rc2			0.68			0.60			0.78	
rc3			0.54			0.76			0.78	
rc4			0.63			0.76			0.58	
rc5	-0.48		0.51	Omitted due to low				-0.48		0.57
rc6			0.45	communalities						0.74
% of variance explained	28.9	8.6	14.6	30.3	10.4	18.4	29.5	9.1	10.4	12.3
Alpha coefficient	0.73	0.44	0.69	0.71	0.60	0.69	0.77	0.31	0.61	0.60
Sampling adequacy	0.79			0.75			0.72			
Alpha for emergent factors	0.62		0.53	0.58		0.64	0.72		0.61	

### *Job characteristics*

The items included in the questionnaires from the Job Characteristics Index (JCI) fell into six categories, feedback, autonomy, identity, variety, dealing with others and friendship

opportunities. During the course of the Training Contract, the nature of trainees duties and responsibilities changes. It would not be surprising, therefore, to see changes in the factor structure over time, although one would anticipate consistency within the six categories. Details of the EFA are given in Table 6.13. EFA on year one data generated a three-factor solution. However, it bore little relationship to the underlying theoretical constructs. The items measuring feedback loaded on two different factors as did the variety items, and one of the “dealing with others” items did not load significantly on any factor. The second year EFA generated four factors, and the third year, three. Both correspond more closely to the dimensions suggested by previous empirical studies and by theory. A possible reason is that new recruits’ perceptions of job characteristics were relatively crude, based on initial impressions only, whereas after 18 months, subjects would have a much clearer idea of job characteristics. It was therefore decided that the most prudent course of action was to disregard the first year factor solution. The identification of common dimensionality across years for job characteristics was, therefore, solely based on years two and three. There were three groups of consistent items. They were the two feedback items, the two variety items and the “dealing with others” and friendship opportunities items. One of the latter (jciami1), however, had to be dropped due to low communality. The only remaining items were the two autonomy items and the single identity item. These formed the fourth factor in the second year but dissipated between factors 1 and 2 (the feedback and variety factors) in the third year. A possible reason for this is again related to the changing nature of trainees’ roles. Most second year trainees aspire to autonomy and task identity as job characteristics which typically accompany increasing seniority in the firm. Many third year trainees, however, would have come to expect and achieve a reasonably high degree of autonomy and identity - these would therefore become less important issues - the extent of autonomy on different assignments might reasonably be seen as part of the variety of the job, as is reflected in the third year factor structure. As discussed in section 6.5.1, a drawback of the methodology adopted to identify emergent factors does not allow the use of different factor structures for different time periods. The JCI illustrates this problem. To ensure none of the explanatory power of the data was lost, *a priori* factor means were also calculated for use in subsequent data analysis. To summarise, therefore, the following variables were computed, being either the factor means of emergent factors, which happened to have the same structure as *a priori* factors (“jcifbk”, “jcivar”) or the means of *a priori* factors (“jciaut”, “jciid”, “jcioth”) themselves.

*Organisational values*

The organisational values scale was included in the second and third years. Akaah and Lund (1994) identified three dimensions in England’s (1967) scale, leadership value, productivity value and service value. EFA in both periods generated two factors with consistent scale item membership. The only exception was the “orgvall” (high staff morale) which was omitted due to low communality. The solutions explained 70.5% and 67.5% of the variance respectively. Details are provided in Table 6.14. The first factor consists of leadership and productivity value items together. This composite factor was therefore reinterpreted as representing values relating to the firm’s success (e.g. efficiency, profit maximisation, stability). The second factor includes the two service value items which, for the purposes of the current thesis, capture a “social responsibility” dimension. Factor means were calculated for the two emergent factors.

**Table 6.13: Job characteristics index EFA**

Scale item - JCI	Year 1: n=393			Year 2: n=196				Year 3: n=131		
	Fctr1	Fctr2	Fctr3	Fctr1	Fctr2	Fctr3	Fctr4	Fctr1	Fctr2	Fctr3
jcifbk1		0.85		0.90				0.82		
jcifbk2	0.59			0.85				0.76		
jciaut1	0.71						0.84		0.50	
jciaut2	0.64						0.81		0.63	
jciid	0.66						0.84	0.63		
jcivar1	0.55				0.77				0.76	
jcivar2			0.72		-0.91				-0.76	
jciami1		0.52				0.61		Dropped due to low communality (0.24)		
jciami2		0.35				0.54				0.62
jcioth1	No significant loadings					0.79				0.75
jcioth2			0.82			0.79				0.81
% of variance explained	25.6	14.7	11.8	12.5	9.7	28.5	15.2	28.3	16.3	13.7
Alpha coefficient	0.64	0.67	0.55	0.81	0.68	0.66	0.64			
Sampling adequacy	0.66			0.69				0.67		
Alpha for emergent factors				0.81	0.66	0.62		0.70	0.62	0.61

*Firm's ethical values*

The 2-item scale produced Cronbach's alpha of 0.80 in the first year and 0.85 in the second and third years, compared with alpha of 0.78 reported by Hunt et al. (1989). This measure ("fethics") was therefore considered to be acceptable for the study's purpose.

**Table 6.14: Organisational values scale EFA**

Scale item - Organisational values	Year 2: n=196		Year 3: n=134	
	Factor 1	Factor 2	Factor 1	Factor 2
orgval1	Omitted due to low communality (0.26)			0.74
orgval2	0.83		0.85	
orgval3		0.85		0.76
orgval4	0.88		0.85	
orgval5	0.73		0.76	
orgval6	0.69		0.71	
orgval7		0.90		0.86
orgval8	0.77		0.83	
orgval9	0.82		0.79	
% of variance explained by factor	51.2	19.3	48.4	18.9
Alpha coefficient	0.89	0.76	0.90	0.73
Sampling adequacy	0.84		0.86	
Alpha for emergent factors	0.89	0.76	0.90	0.73

*Socialisation*

Exploratory factor analysis of the nine-item socialization scale initially revealed a three factor solution, although the third factor consists of only one item which had a very low communality (0.12). This item was located in a separate section of the questionnaire to the other 8 items. The reason for locating it away from the other items was that although it dealt with a specific theme identified in the socialisation literature, the tendency of firms to attempt to instil a sense of the uniqueness of the particular firm, the item did not fit in with the general socialisation theme which concerns the influence of the peer group. The low communality is therefore unsurprising, both due to the topic of the question and its location in the research instrument. It was therefore dropped from the EFA. Given the nature of the development of this scale it should be considered highly exploratory. Subsequent EFA,

however, revealed a two-factor solution in both years 2 and 3. There were no cross-loadings in year 2 and one in year 3. Details are provided in Table 6.15. Two consistent groups of items emerge from the EFA. The main group, factor one, comprises four items which represent socialization at work and the importance of membership of “the group” (alpha values of 0.78 in year 2 and 0.83 in year 3). Factor 2 comprises two items concerned with belonging to the group in a social sense (alpha values of 0.57 in year 2 and 0.63 in year 3). Due to the exploratory nature of the scale, however, and the low level of alpha for factor 2 relative to factor 1, it was decided to treat the scale as unidimensional. Year 2 and 3 alpha values for items soczn1 to soczn7 were calculated at 0.76 and 0.80, not much lower than the values for factor 1. For each year, a composite scale average was calculated for use in subsequent empirical testing.

**Table 6.15: Socialisation scale EFA**

Scale item - socialization	Year 2: n=163		Year 3: n=111	
	Factor 1	Factor 2	Factor 1	Factor 2
soczn1	0.78		0.85	
soczn2	0.80		0.85	
soczn3	0.76		0.64	0.53
soczn4		0.57		0.80
soczn5		0.74	0.59	
soczn6		-0.79		-0.80
soczn7	0.75		0.77	
soczn8	0.60			0.56
% of variance explained by factor	40.8	16.1	47.2	14.6
Alpha coefficient (excluding cross-loaders)	0.78	0.57	0.83	0.63
Sampling adequacy	0.80		0.81	
Alpha for emergent scale (factors 1 + 2)	0.76		0.80	
Alpha for emergent factors	0.81	0.51	0.84	0.60

#### *Acceptance by co-workers*

This 2-item scale only generated alpha coefficients of 0.57 and 0.54. These were not considered high enough so the data was excluded from subsequent data analysis.

### *Conformity motivation*

The 3-item scale produced acceptable alpha values of 0.80 and 0.74 in year 2 and 3 respectively

#### **6.5.3.2 Summary**

Exploratory data analysis of situational variables reported in section 6.5.3.1 essentially consisted of exploratory factor analysis and the assessment of internal consistency of the measurement scales. In order to draw together the findings of this data analysis, various tables are provided. The first, Table 6.16, summarises the situational measurement scales that were found to be unidimensional along with Alpha coefficients. In the second, Table 6.17, key information about the exploratory factor analysis and reliability of multidimensional scales is collated. This table shows which of the individual measurement scale items formed factors consistent across years, and which were therefore identified as emergent factors. Various details are given for each factor solution - eigenvalues, percentage of variance explained, KMO statistic and alphas for each emergent factor. Italics are used to indicate original measurement scale items which **did not** form part of the emergent factor structures. Means were calculated for each of these emergent factor. In addition to this, as discussed in section 6.5.1, *a priori* means were also calculated according to definitions in the literature. A final table, Table 6.18, summarises the coefficient alphas for these factors and highlights the cases where emergent and *a priori* factor structures were identical.



**Table 6.16: Summary of exploratory data analysis on unidimensional situational variables**

Scale	Scale items	Year 1 (n=393)		Year 2 (n=199)		Year 3 (n=135)	
		Data analysis performed	Alpha	Data analysis performed	Alpha	Data analysis performed	Alpha
Firm's ethics	fethic1 fethic2	EFA - Unidimensional structure: 2-item scale average calculated.	0.80	EFA - Unidimensional structure: 2-item scale average calculated.	0.85	EFA - Unidimensional structure: 2-item scale average calculated.	0.85
Socialisation	soczn1 - 8	<i>Not included</i>		EFA - 2 factors (56.9%) found. However, treated as unidimensional - single scale comprising soczn1-7.	Table 6.15 0.76	EFA - 2 factors (61.8%) found. However, treated as unidimensional - single scale comprising soczn1-7.	Table 6.15 0.80
Acceptance by co-workers	accpt1 accpt2	<i>Not included</i>		2-item scale average calculated.	0.57	2-item scale average calculated.	0.54
Conformity motivation	conform1 conform2 conform3	<i>Not included</i>		EFA - Unidimensional structure; 3-item scale average calculated.	0.80	EFA - Unidimensional structure; 3-item scale average calculated.	0.74

**Table 6.17: A summary of the factor solutions of items identified as core indicators of multidimensional situational variables**

Scale	Year 1 (n=393)			Year 2 (n=199)			Year 3 (n=135)							
	Original items	Core items	Alpha	Eigenvalue	% of var.	KMO	Alpha	Eigenvalue	% of var	KMO	Alpha	Eigenvalue	% of var	KMO
Social power	<i>pwr rwd1</i> <i>pwr rwd2</i> <i>pwr ref1</i> <i>pwr ref2</i> <i>pwr crc1</i> <i>pwr crc2</i> <i>pwr crc3</i> <i>pwr xpt1</i> <i>pwr xpt2</i> <i>pwr lgt1</i> <i>pwr lgt2</i>	<i>pwr ref1 \</i> <i>pwr ref2 /</i> <i>pwr crc1 \</i> <i>pwr crc2</i> <i>pwr crc3 /</i>  <i>pwr lgt1 \</i> <i>pwr lgt2 /</i>	0.67 0.76 0.53	1.71 2.23 1.01	70.7%	0.66	0.78 0.80 0.54	1.76 2.51 0.91	73.9%	0.66	0.55 0.80 0.53	1.12 2.37 1.51	71.5%	0.65
Role conflict and ambiguity (RC & RA)	<i>ra1</i> <i>ra2</i> <i>ra3</i> <i>ra4</i> <i>ra5</i> <i>ra6</i> <i>rc1</i> <i>rc2</i> <i>rc3</i> <i>rc4</i> <i>rc5</i> <i>rc6</i>	<i>ra3 \</i>  <i>ra5 /</i>  <i>rc2 \</i> <i>rc3</i> <i>rc4 /</i>	0.62 0.53	2.12 1.39	58.4%	0.66	0.58 0.64	2.33 1.36	61.6%	0.68	0.72 0.61	2.34 1.41	62.4%	0.67
Job characteristics	<i>jcifbk1</i> <i>jcifbk2</i> <i>jciant1</i> <i>jciant2</i> <i>jcuid</i> <i>jcivar1</i> <i>jcivar2</i> <i>jciami1</i> <i>jciami2</i> <i>jcioth1</i> <i>jcioth2</i>	<i>jcifbk1 \</i> <i>jcifbk2 /</i>    <i>jcivar1 \</i> <i>jcivar2 /</i>  <i>jciami2 \</i> <i>jcioth1</i> <i>jcioth2 /</i>	0.81	1.40			0.66 0.62	1.15 2.49	72.0%	0.62	0.70	1.48	69.5%	0.56
Organisational values	<i>orgval1</i> <i>orgval2</i> <i>orgval4</i> <i>orgval5</i> <i>orgval6</i> <i>orgval8</i> <i>orgval9</i> <i>orgval3</i> <i>orgval7</i>	<i>orgval2 \</i> <i>orgval4</i> <i>orgval5</i> <i>orgval6</i> <i>orgval8</i> <i>orgval9 /</i> <i>orgval3 \</i> <i>orgval7 /</i>	0.89 0.76	4.10 1.54	Not included in questionnaire.	0.84	0.90 0.73	4.19 1.45	70.5%	0.84	0.90 0.73	4.19 1.45	70.5%	0.86

*Italics indicate original scale items which do not form part of the emergent factor structures.*

**Table 6.18: Internal consistencies of factors derived according to conceptually defined dimensions**

Scale	<i>A priori</i> dimensions (no. of scale items)	Year 1 alpha	Year 2 alpha	Year 3 alpha
Social power	Reward (2)	0.51	0.67	0.31
	<i>Reference</i> (2)	<i>0.67</i>	<i>0.78</i>	<i>0.55</i>
	<i>Coercion</i> (3)	<i>0.76</i>	<i>0.80</i>	<i>0.80</i>
	Expert (2)	0.54	0.52	0.37
	<i>Legitimate</i> (2)	<i>0.53</i>	<i>0.54</i>	<i>0.53</i>
Role conflict and ambiguity (RC & RA)	Role ambiguity (6)	0.73	0.74	0.69
	Role conflict (6)	0.69	0.68	0.67
Job characteristics	<i>Feedback</i> (2)	<i>0.32</i>	<i>0.81</i>	<i>0.70</i>
	Autonomy (2)	0.37	0.44	0.63
	Identity (1)	-	-	-
	<i>Variety</i> (2)	<i>0.33</i>	<i>0.66</i>	<i>0.62</i>
	Friendship opportunities (2)	0.43	0.45	0.34
	Dealing with others (2)	0.41	0.68	0.63
Organisational values	Leadership (4)	<i>Not included</i>	0.73	0.78
	Productivity (3)		0.85	0.83
	<i>Service</i> (2)		<i>0.76</i>	<i>0.73</i>

*Italics* indicate identical *a priori* and emergent factor structures.

#### 6.5.4 Exploratory data analysis of ethical decision making scenarios

The main vignette used to measure ethical judgement was the flammable pyjamas case which was included in all three questionnaires. It will be used to examine longitudinal change in ethical decision making. Two further vignettes were used. First, the tax referral case, included in the first year only and second, the premature audit sign-off, included in the second and third years. These cases will mainly be used in the testing of the static hypotheses, although changes in the responses to the sign-off case will be examined for changes between year two and three.

The multidimensional responses to all three vignettes were explored using EFA. The expectation from the normative and scale development literatures was that dimensionality of

response would reflect the different philosophical bases for ethical judgement. In the EFA results, however, not only do the philosophy-based dimensions fail to appear, but also only one of the scenarios, the flammable pyjamas (FP) case, resulted in multidimensional responses. The other two cases yielded unidimensional solutions. The FP case data generated two factors with approximately the same structure in each of the three years explaining 69.2%, 69.9% and 74.5% of the variance. All 7 scale items were included in the EFAs. The only items which loaded onto both factors was item one, the general item which had not been based on either Reidenbach and Robin's or Hansen's work on the development of multidimensional ethics scales from which the remainder of the scale items were taken. The general item was therefore omitted in the identification of emergent factors. Details are provided in Table 6.19 which also includes coefficient alpha for the two unidimensional scenarios. The two dimensions, or emergent factors, were identified as professional ("pyjprof1/2/3"), comprising items 4, 6, and 7, and personal ("pyjpers1/2/3"), comprising items 2, 3, and 5. The personal dimension incorporated Reidenbach and Robin's broad-based moral equity and social contract constructs. The professional dimension constructs are Hansen's teleological *and* deontological judgements and Reidenbach and Robin's relativism construct. As already noted, these factor structures do not accord with what might be expected. For instance, one might anticipate that the deontological items would load on the same factor. An explanation for this may lie in situation specificity. Although Reidenbach and Robin assert the situation independence of their measure, they acknowledge that the relativism and contractualism dimensions become more or less important depending on the nature of the ethical situation. This explanation, however, fails to account for the difference in dimensionality between the vignettes, since responses to all the vignettes were provided against the same contextual background. Alternatively, the data in this study may be highlighting some of the deficiencies of moral philosophies as predictors of ethical decision making and the need for a values focus. As already discussed the two EFA dimensions were best identified as personal and professional. This seems to suggest that two sets of values, personal and professional are being employed to interpret the same situation. Section 2.5.6 has shown the potential for value conflicts. The existence of such a conflict in the FP case but not in the other cases may therefore explain the dimensions in the FP case and the unidimensionality of the other cases. These themes will be readdressed in the remaining chapters. Variables saved for subsequent data analysis are "pyjsum", "taxsum", and "auditsum" which are means of the seven scale items used for each scenario. Additionally, a

variable was computed to measure the degree of conflict between personal and professional assessments of the FP case by subtracting “pyjprof” from “pyjpers” to create “pyjconf”.

**Table 6.19: Ethical judgement scenarios exploratory data analysis**

Scale item - flammable pyjamas	Year 1: n=385		Year 2: n=197		Year 3: n=130	
	Factor 1	Factor 2	Factor 1	Factor 2	Factor 1	Factor 2
Acceptable/Unacceptable	0.50	0.66		0.73	0.55	0.57
Morally right/Not morally right	0.84		0.85		0.91	
Acceptable/Unacceptable to your family	0.81		0.84		0.86	
Is/Is not in the best interests of the firm		0.79		0.80		0.87
Socially responsible/Not socially responsible	0.81		0.86		0.85	
Professionally acceptable/Unacceptable		0.87		0.87		0.91
He was/Was not obliged to act in this way		0.81		0.78		0.79
% of variance explained by factor	21.4	47.7	27.6	42.4	49.3	25.1
Alpha for emergent factors	0.79	0.80	0.81	0.78	0.87	0.83
Sampling adequacy	0.80				0.78	
<b>Alpha</b> for whole scale (items1-7)	0.81		0.77		0.83	
<b>Tax referral case alpha</b>	0.89		<i>Not included</i>		<i>Not included</i>	
<b>Premature sign-off case alpha</b>	<i>Not included</i>		0.84		0.83	

## 6.6 The cross-product method

Some of the models of ethical decision making reviewed in chapter 2 such as Trevino’s (1986) posit that certain variables have an interactive effect on ethical judgement. That is, they recognise that two or more variables can influence ethical judgement jointly or, in other words, that one of the variables interacts with a second variable to moderate the existence or strength of the second variable’s effect on ethical judgement. Tsui and Gul’s recent study (1996) has introduced into business ethics a method of dealing with interaction used previously by scholars in other fields (Govindarajan and Fisher, 1990 - in management; Gul and Chia, 1994 - in accounting; Southwood, 1978 - in sociology). To test a two-way interaction effect, the method involves incorporating a cross-product variable into a multiplicative regression model. A cross-product variable is calculated simply by multiplying the interacting variables together. The new variable is then included in

regression analysis in the usual manner. According to Southwood (1978, p. 1155), the cross-product term represents the interaction “occurring between independent variables and their effect on the dependent variable”. If the regression coefficient for the cross-product terms is significantly different to zero, then it can be concluded that the two independent variables work together to influence the dependent variable. To discover more about the nature of the interaction in cases where there is a significant interaction, the partial derivatives can be examined. This will be done, and explained further, in chapter 8.

## **6.7 Summary and conclusion**

This chapter has reported the initial data analysis carried out to examine the quality of the data set and to reveal patterns and general trends in it. The chapter started by describing the methods of distribution of the questionnaire, resulting response rates and the process by which individuals were traced through the three year research period. Section 6.3 addressed the important issue of representativeness. This concerns whether the responses of the study’s sample are representative of the population as a whole. The two major threats to representativeness of non-response bias and social desirability bias were discussed and various methods employed to thoroughly investigate them. Results suggest that the effect of these biases on the dataset is minimal.

The meaning and importance of reliability and validity were addressed in section 6.4 of the chapter. The approaches taken in this thesis to establishing reliability and validity were outlined in section 6.4 and used in section 6.5 as part of the exploratory data analysis which forms the remainder of this chapter. In general, it would appear that reliability and validity of the scales are acceptable with alpha coefficients, exploratory factor analysis results and test-retest statistics being satisfactory. The data are certainly suitable for use in further analysis.

The penultimate section of this chapter was concerned with exploratory data analysis of the data generated by the questionnaires. An important tool of this analysis was exploratory factor analysis (EFA). A particular challenge unique to the use of EFA in longitudinal research is how to deal with factor structures which vary with time. Section 6.5.1 discussed various options for dealing with this problem. In order to avoid crudely over-simplifying the data or limiting the degree of longitudinal comparability, an approach was adopted which has

been used successfully in cross-cultural research. It represents a practical methodological compromise which, in this research, seeks to identify common dimensions in different time periods. The criteria for identifying these common dimensions, or “emergent factors”, was described and discussed in section 6.5.1 before the approach was adopted for use in sections 6.5.2 and 6.5.3. Generally, section 6.5 outlined the rationale for, methods and results of exploratory data analysis of the measurement scales. Exploratory analysis had three objectives. These were, first and second, assessment of reliability and validity, in particular, discriminant validity, and third, data reduction in order to facilitate further analysis of the data and hypothesis testing which are the subject of chapters 7 and 8. Finally, section 6.6 explained one particular aspect of the hypothesis testing to be used in the results chapters to deal with interactive independent variables. This is the cross-product method.

## Chapter 7: Assessment of cross-sectional hypotheses

### 7.1 Introduction

The previous chapters have been concerned with outlining literature relevant to this thesis, with developing a model and hypotheses to be tested, and with preliminary data analysis. In this chapter, the first tranche of results of the research will be presented. The next section covers some descriptive statistics for the ethical judgement scenarios and for other key variables. Then in section 7.3, results of the cross-sectional data analyses are presented and are used to test the hypotheses developed in chapter 4. Some conclusions are drawn in section 7.4.

### 7.2 Descriptive statistics

This section presents descriptive statistics for the ethical judgement variables and for the variables used in hypotheses testing in section 7.3. Means, standard deviations and bivariate correlations were calculated using SPSS. Also, some independent-samples and paired-samples t-tests were carried out. The analysis was conducted on the reduced data rather than for each scale item in every scale. For example, a single mean is calculated for the emergent role conflict factor discussed in chapter 6, and for the *a priori* role conflict construct, rather than presenting means for the six scale items. The means, standard deviations, frequencies and t-tests are discussed in the remainder of this section. Bivariate correlation coefficients are presented and discussed in Appendix 2. Some procedures such as t-tests are dependent upon the assumption of normality. Before continuing some attention needs to be paid to the issue of the normality of the data used in the study.

There are two issues in relation to normality. The first relates to the measurement scales used in this study. In very strict measurement terms, it might be argued that data collected on scales ranging from 1 to 7 are ordinal. There is substantial precedent in all fields of empirical social science research (Oppenheim, 1992), however, for the treatment of such data as interval. Indeed, it can be shown that it is entirely possible for a Likert-type 1-7 scale to follow a normal distribution. The second, more important issue regarding normality concerns the types of constructs measured in this study. Questions related to ethical matters



such as the scenario responses might be a cause of non-normality in that one might anticipate extreme or skewed responses to individual questions. In order to investigate this, the data were examined for normality using Kolmogorov-Smirnov one-sample tests. While there is evidence of some slight departures from the strict normality assumption for some of the variables i.e. there is some suggestion that some variables are not entirely normal, the extent of these departures was not considered sufficiently problematic to warrant a wholesale change in the analysis approach<sup>1</sup>. This decision was founded on precedent in the empirical literature on ethical decision making (e.g. Jones and Hildebeitel, 1995; Shaub, 1989; Tsui and Gul, 1996) which, whilst rarely addressing the normality issue explicitly, accepts implicitly that there is a pragmatic trade-off between the insights which can be gleaned on the one hand from parametric data analysis, and the rigour but restrictions posed by non-parametric procedures on the other.

Various characteristics of the sample are of interest in the current study. Table 7.1 presents frequency distributions for some of these characteristics - sex, size of firm and number of years employed before joining the accountancy profession. The table also gives details of exemptions from the professional examinations, perceived importance of professional ethics in accountancy and a crude assessment of adequacy of professional ethics guidance or training received. The male/female gender splits of the samples are roughly representative of the split for the whole population of all chartered accountancy trainees which, at the end of the three year period, comprised 2740 students split 65%:35%. Firms were classified by the ICAEW as being large with more than 20 partners, medium-sized between 5 and 20 partners, and small with less than 5 partners. Table 7.1 reveals that the percentage of large firms included in the sample rose from 62% to 67% over the three year period at the expense of the small firms. The reason for this is the relatively high drop-out rate for small firms participating in the study. Many such firms only recruited one or two trainees, the departure of which could mean the loss of the firm from the sample. Details on years of employment indicate that a large majority (88%) had worked for a year or less. This accords with expectations of a group of new graduates. Fully or partially relevant/exempt graduates, having studied some subjects which form part of professional training whilst at university, were exempt from all or parts of the first stage of professional examinations. The remainder

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<sup>1</sup> To confirm this, a series of non-parametric tests (Wilcoxon Signed-Rank test) were run on the scenario responses across scenarios dimensions and with the same scenario dimensions across time. These tests mirrored the paired samples t-tests reported in Table 7.4 and produced the same pattern of results.

(44%) had no exemptions. Independent samples t-tests were used to compare the responses to the scenarios of trainees with fully or partially relevant degrees to those of non-exempt graduates in years 2 and 3. The results, presented in Table 7.2, showed no significant differences. This lends support to the critical view of university accounting education discussed in chapter 3, that it does not develop professional ethical reasoning ability any more or less than other university courses.

*Table 7.1: Socio-demographic descriptive statistics*

Variable	Value	Year 1		Year 2		Year 3	
		Frequency	Percent	Frequency	Percent	Frequency	Percent
Sex	Male	232	59	116	60	80	61
	Female	161	41	78	40	52	39
	<i>Total</i>	<i>393</i>	<i>100</i>	<i>194</i>	<i>100</i>	<i>132</i>	<i>100</i>
Firm size	Large	245	62	127	64	91	67
	Medium	100	25	57	29	32	24
	Small	48	13	15	7	12	9
	<i>Total</i>	<i>393</i>	<i>100</i>	<i>199</i>	<i>100</i>	<i>135</i>	<i>100</i>
Years of previous employed	0-1	336	88	Information not collected		Information not collected	
	1.5-3	36	9				
	3.5-7	9	3				
	<i>Total</i>	<i>381</i>	<i>100</i>				
Exempt?	Fully	Information not collected		47	24	28	22
	Partially			62	32	41	32
	Not at all			86	44	61	46
	<i>Total</i>			<i>195</i>	<i>100</i>	<i>130</i>	<i>100</i>
Importance of ethics	1 V. imp.	Information not collected		66	34	47	35
	2			78	40	56	42
	3			41	21	21	16
	4			4	2	3	2
	5			3	1	4	3
	6			5	2	0	0
	7 V. unimp			0	0	2	2
<i>Total</i>			<i>197</i>	<i>100</i>	<i>133</i>	<i>100</i>	
Extent of prof. ethics training	None	Information not collected		11	6	6	4
	Not enough			51	26	40	30
	About right			134	68	88	65
	Too much			1	0	1	1
	<i>Total</i>			<i>197</i>	<i>100</i>	<i>135</i>	<i>100</i>

**Table 7.2: Independent samples t-tests of scenario responses by professional exam status**

Scenario and dimension	Year 2 mean		Year 3 mean	
	No exemptions	Some or total exemption	No exemptions	Some or total exemption
FP case - personal	5.31	5.26	5.13	5.05
FP case - professional	2.81	2.66	2.81	2.89
FP case - mean	3.92	3.83	3.83	3.82
FP case - conflict	2.50	2.60	2.31	2.16
Audit sign-off - mean	4.83	4.87	5.06	5.07

\* Two-tailed significance at 5%

The remaining information in Table 7.1 concerns matters relating to professional ethics. Trainees were asked directly how important they thought professional ethics were in the accountancy profession. Responses on the 7-point scale indicate that the vast majority saw professional ethics as being at least somewhat important. Only 5% and 7% of respondents in years 2 and 3 respectively used the middle, neutral point in the scale or considered professional ethics at all unimportant. This pattern of responses is interesting from a number of perspectives. The first is that it appears to illustrate the danger of direct questioning techniques eliciting socially desirable responses in sensitive subject areas such as business ethics. Various authors, already reviewed in section 5.4.2.4, have argued that indirect questions are less susceptible to such strong bias. The second point of interest about these data is that, *despite* the likely social desirability bias, there remains the small percentage of individuals who regard professional ethics as relatively unimportant. Although this may represent only a small number of “bad apples in the barrel”, it may still be of concern to the profession who pride themselves on their high ethical standards. The following quotations from the small number of interviews conducted for triangulation purposes illustrate that generally, professional ethics are considered important, but for a variety of reasons:

“I think trust is very important. In fact I think it is probably the best rule of professional ethics, being dependable and reliable and acting in such a way that people can depend upon what you’ve done or told them”.

“There’s other big professions like law but in accountancy, ethics is really important because there’s serious capability to mess people up and to mess companies up and lose lots of money for a lot of people.”

“The whole point of being an auditor is the fact that you’re independent. You need the code of ethics to do your job properly and be seen as independent”.

“I think the minimum standards of professional conduct are governed by fairly pragmatic rules like no insider dealing, don’t have shares in client companies, thou shalt not steal and so on. Some of the more subjective areas are all about a balancing

act between doing the work to a high professional standard and running the business. That's a lot more difficult. To my mind, there will never be any question or any mental conflict when it comes to the first set of rules that I mentioned because they are clear and you want to stick to them or you don't. If you don't and you get found out you get into trouble and you know that. I think the grey area is the second sort. They're the more interesting ones. I don't think they are a serious threat but I think it is always something you have to bear in mind. It is a daily balancing act that I think everyone does."

The final block of information in Table 7.1 gives information on trainees' perceptions of the extent of guidance and/or training in professional ethics. This information was collected in years 2 and 3, and in both years, the majority of respondents thought the amount of training they had received was "about right". Several interview subjects agreed with this, indicating for a variety of reasons that they did not see a need for more training:

"You know its more of a common sense thing than anything else. I think I normally have a reasonable idea of what is right. And there's a rule that I would never break if I was ever unsure - I would always err on the side of caution."

Asked if they had received any specific ethics training since the induction course, two interviewees responded:

"In terms of [non-exam] internal training, no, not really. I suppose that's ok because of the fact that in terms of ethics the damage that can be done at this level [third year trainee] is not particularly great. That's what I'd like to think anyway!"

"Oh no. Nothing. I don't really think there's a need, because if you did have a problem, then you would go and tell someone about it. They tell us up front if we've got an issue then we go and tell them."

There was, however, a significant minority (about one third) who had either received none or "not enough" training/guidance. This suggests that the inclusion of more professional ethics material (taught in an appropriate and effective manner) in the training programme could be useful to trainees. Highlighting the problems of relying on exam-based ethics study, another interviewee echoed this point of view:

"The problem I think where people learn things as a part of their professional studies is that they see it as something to be learnt for professional examination, it need not necessarily be applied to their everyday work, because as you know a lot of what we learn is quite irrelevant to what we do on an everyday basis. I think the people who possibly haven't sufficiently applied it to what they do on an everyday basis there ought to be some other form, say on the internal training courses which I think people find it a lot easier to accept and more relevant to their day to day work, particularly in Firm Y, the internal courses we have are very much focused on audit work and audit

approach. If you could build business ethics into that I think it would make it a lot more relevant to everyday work and how we do the work, and it would be applied a lot more rigorously.”

Table 7.3 gives the means and standard deviations by year of the reduced versions of all the major variables in the study. The gaps in the table correspond to the non-collection of variables in certain time periods as already discussed in chapter 5. Various types of analysis can be made using these statistics. The first is a comparison “within years” of the values for different but related variables. The second is a “between years” comparison of values of the same variables over time. This was done using paired samples t-tests for all variables which had been collected both in year 1 and 3<sup>1</sup>. The results are indicated on the table in two ways. First, where significant differences<sup>2</sup> exist, the levels of significance are indicated by means of asterisks. Second, the final column of the table indicates the direction of change in the means. Similar t-tests were carried out to investigate change between years 2 and 3 for the ethical judgement scenarios and other variables such as socialisation and organisational goals which had been introduced for the first time in the second questionnaire. These t-tests, however, revealed no significant changes. The remainder of this section discusses the values of the variables presented in Table 7.3, both between years and within years.

The locus of control variable (locsum) has a mean of 4.77. This represents the average score of 4.77 external choices out of a maximum of 10. The mean external score of the accountants used in Tsui and Gul’s (1996) study was 10.10 using the full 23 item version of the scale. This equates to 4.39 out of 10, which is similar to the mean of 4.77 in this study.

As expected, the statistics calculated for personal values indicate stability over time. There are no significant differences in the mean values nor in the ranking of the value factors between the first and third years. Low scores indicate high importance of values i.e. values were reverse coded. The value factor which has the lowest mean in both years 1 and 3, and is therefore the most important, is the hedonism/pleasure factor. The importance of this factor is supported by the negative “dvri”, calculated as pleasure minus equality, which indicates that subjects rated pleasure more highly than equality. The second ranked value factor in both years was the general factor comprising family security and peace of mind. The work value factor was ranked third. The means for all three factors were, however, quite similar.

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<sup>1</sup> Using the 75 subjects who were common to both samples.

<sup>2</sup> Only significance levels of 5% or less were considered (in order to be prudent).

*Table 7.3: Descriptive statistics for the main variables*

Variable	Year 1		Year 2		Year 3		Yr1/Yr3
	Mean	S.d.	Mean	S.d.	Mean	S.d.	Mean ↑or↓
loc sum	4.77	2.11					
val soc	20.13	5.97			20.66	5.41	NS
val work	2.30	0.87			2.47	0.89	NS
val gen	2.25	1.02			2.20	0.91	NS
val hed	2.07	1.09			2.01	0.87	NS
dvri	-0.80	1.73			-0.94	1.59	NS
per mat	3.21	1.11			3.47	1.33	NS
fcommt	3.17	0.94	3.51	1.11	3.83**	1.08	↑
pcommt	3.41	1.07					
e tr days			1.09	1.80	1.11	1.65	NS
firm sup			0.22	0.42	0.33	0.47	NS
f ethics	2.31	1.10	2.44	1.18	2.63**	1.23	↑
soczn			3.27	0.89	3.33	1.06	NS
conform			3.71	1.41	3.77	1.35	NS
peer pwr chk	3.08	1.38	3.61	1.58	3.53	1.52	NS
accptn			2.33	0.99	2.39	1.13	NS
pwr crc	2.66	0.83	2.64	0.89	2.70	0.90	NS
pwr ref	2.74	0.77	2.80	0.85	2.96*	0.78	↑
pwr lgt	2.54	0.84	2.84	0.91	2.84**	0.83	↑
pwr rwd	2.27	0.75	2.41	0.92	2.46	0.71	NS
pwr xpt	1.92	0.59	2.11	0.70	2.33**	0.67	↑
ra	3.26	0.87	3.37	0.88	3.46*	0.83	↑
rc	4.24	0.95	4.14	0.98	3.88**	0.96	↓
ra em	3.28	1.07	3.42	1.07	3.42	1.08	NS
rc em	4.21	1.13	4.13	1.26	3.85**	1.24	↓
role time	3.27	0.99	3.48	0.96	3.81**	0.97	↑
jci fbk	3.49	1.11	3.58	1.41	3.67*	1.33	↑
jciid	3.53	1.67	3.15	1.55	2.69**	1.36	↓
jci aut	2.84	0.98	2.67	0.95	2.50	0.95	NS
jci var	4.26	0.82	4.01	1.21	4.18	1.15	NS
jci ami	3.24	1.20	3.11	1.22	2.93	1.00	NS
jci oth	2.37	1.06	2.12	0.99	1.95	0.86	NS
jci oth em	2.65	0.97	2.24	0.90	2.04**	0.76	↓
orgval em			5.46	1.25	5.33	1.31	NS
orgval csr			4.49	1.55	4.34	1.52	NS
orgval prod			5.54	1.41	5.48	1.44	NS
orgval lead			5.08	1.18	4.85	1.24	NS
audit sum			4.84	1.07	5.07	1.05	NS
tax sum	4.47	1.26					
pyj pers	5.11	1.35	5.24	1.37	5.12	1.50	NS
pyj prof	3.20	1.65	2.71	1.45	2.84*	1.56	↓
pyj sum	4.09	1.25	3.84	1.10	3.83*	1.23	↓
pyj conf	1.91	1.80	2.53	1.84	2.28	1.87	NS
n	393		199		134		75

\* Two-tailed significance at 5%

\*\* Two-tailed significance at 1%

NS No significant change (at 5%) in mean indicated by paired samples t-test between years 1 and 3

The mean for personal materialism of 3.21 in year 1 indicates that the average respondent agreed rather than disagreed with the materialism statements, but not strongly. There was no significant change over the period. The stability of personal values was expressed by the majority of the interview respondents who were asked if their experience of accountancy had changed them:

“Definitely, I’m a different person. But not my values. I think my values are the same.”

“I suspect my personal values haven’t changed that much. I think deep down I feel as though I know what’s right and what’s wrong, potentially...”

“I think its changed me commercially in a big way. And in confidence. Its not really materially changed the way I approach things, but its changed the world for me. I wouldn’t have changed it either. I have gone into the right division [insolvency] for me despite the personalities involved. They are the ones that probably have distorted my mind and caused me discomfort, but I can’t really think what it has done apart from make me more professional I suppose.”

Organisational commitment is the first variable in Table 7.3 to show significant change between the first and third years. The increases in the mean of firm commitment from 3.17 to 3.51 and then to 3.83 in years 1, 2, and 3 respectively are indicative of increasing disagreement with the measurement scale statements of commitment. The result is highly significant ( $p = 0.00$ ) and is not unexpected as it is typical for a substantial proportion of trainees to leave their firms soon after qualification. Unfortunately, data for commitment to the profession is only available in the first year, when the mean value of 3.41 suggested that subjects were less committed to the profession at the start of training than they were to their particular firms. These findings will be discussed further in the context of multivariate analysis later in this chapter and in the next chapter. The next variable in Table 7.3 showing significant change over time is firm’s ethical values. This is the mean of a two-item scale measuring subjects’ perceptions of the attitude of firms towards unethical actions. The increase in the mean from 2.31 to 2.63 implies that subjects became less convinced of their firms’ support of ethics over the training period. It is interesting to note that this has happened at the same time as firm commitment has fallen. One particular interviewee was perhaps illustrative of a very cynical attitude towards firms’ approaches to ethical matters. When asked whether there should be any more ethics training, he replied:

“There should be a massive emphasis on ethics and the way things are done, but at the end of the day, what’s important is who gets the big clients. It would be good if they would install ethics training and procedures, but you’re not going to get away from ethical pressures until you sort out what’s happening at the top. I mean they’ve got these crappy rule about ‘there’s only so much income you can have from one customer’, etc., but it doesn’t work at all because they’ve got big clients, lose one and the partner loses his job, so he’s not going to lose it. Before you make any changes down at the bottom, it would be good if you could because maybe it’d make you a bit more conscious about what your doing, but it’s got to be sorted at the top first in my opinion.”

On the other hand, another interviewee clearly still had a high regard for his employer’s ethical standards after three years:

“Trust is placed in your hands. And it’s a case of ‘do you want this qualification or not?’. If you want to stay in the profession, then you’ve got to keep aside from those sorts of things. [Firm X] just won’t wear it.”

There are two training variables included in Table 7.3. First, the extent of non-exam related formal ethics training is indicated by “e tr days”. On average, respondents received only one day of this over the three years. Second is “firm sup” which is a variable indicating how formal ethics training was provided. Zero indicates that any formal training was provided externally or by reference material and 1 indicates that it was provided by tutors or partners inside the firm in addition to external or reference material provision. Three quarters of subjects responding to this item in year two, and two thirds in year 3, had only received reference material or external ethics training. One interviewee described her perceptions of the way ethics was covered by external tutors in preparation for the intermediate-level professional examination, Auditing and Information Systems (AIS):

“It’s very matter of fact, sort of cut and dried ethics that we get taught. So it’s “thou shall not accept free holidays from your clients”, I mean it’s very matter of fact - it’s almost like having a page with a list of bullet points and a joking tutor will actually stand at the front of the class and say “right do this, do this, do this, don’t do this, don’t do this”.

Another interviewee answered in the following way when asked, in the second year, whether she had had any ethics training:

“No. Only when we first joined and we talked about half a day and they gave us the manual - its not cropped up ever since. Oh, apart from as part of intermediates (exams). I forgot that. But they didn’t actually teach us because it was just one of the topics and its easier to read it yourself. They just referred you to it and I read it.”



The trainees responding to questionnaires were also asked to describe in writing the nature of ethics training. Many mentioned the role of their induction courses during which they were introduced to the topic of professional ethics. Several of the interviewees illustrated the type of coverage given to ethics on these courses and their assessment of its effectiveness:

“The main thing we had drilled into us when we started is basically about confidentiality. We had the managing partner, and at the time, he seemed like a god, he came and gave us a speech about it and we got a file all about it.”

“They give you all this stuff about how you should be an upstanding person and accountancy is a great, ethical profession to be in etc. etc., and then they bang you off on a study course for 17 weeks where all you’re concerned with is passing your exams, and if you fail your fired. So I mean when you come back thinking well I’ve still got my job, but what about the ethics, you don’t really care any more. You just keep your nose clean and that’s the way it goes.”

“I’m not aware of having any specific ethics training. There might be something that is sort of pretty subconscious - you know, this or that happens, and that’s the way things are. [When asked specifically about the induction course:] Oh yes, ok, yes, they give the five principles of the company or something. But because it’s so close to the beginning and there is so much being piled on you in the two weeks, alot goes in but alot comes out.”

In the written responses, the majority of trainees indicated that they had received some on-the-job guidance in ethics. Many described this guidance in terms of requirements or rules and in relation to specific audit jobs. For example, “description of required approach”, “verbal instructions on acceptable actions”, “very general description of required approach with client”, “discussion of what was allowable and what was not”, “standard requirements with specific jobs”, “client confidentiality, safeguarding files”, “auditing: appointments, independence” were typical descriptions. The perception that on-the-job training was an important part of ethics training also featured in the interviews. The following quotations illustrate the nature of on-the-job training as very informal, based on experience and observation rather than explicit discussions of ethical issues.

“We’ve covered ethics in intermediate Auditing Information Systems and also implicitly through my work. Really more I think through observation than actually being told this is how we do things. It’s seeing how partners behave, seeing how (senior) in-charges are with clients and those sort of relationships, and understanding what level of quality is acceptable to managers and what isn’t.”

“I think experience has taught me some lessons - you get a better understanding as you go along of what’s right and what’s wrong.”

“You tend to learn things on the job anyway. People say yes you should do this or no you shouldn’t do that. I suppose I’ve learnt more since I started work than actually the partner talking to us [on the induction course]. You just learn what’s the done thing and what’s not.”

The next four variables concern aspects of socialisation and the group experience of being a trainee graduate accountant. “Soczn” is the mean of the socialisation scale devised for this study using the graduate accountant socialisation literature. Low scores on the seven-point scale, and of the mean value for the scale, would indicate that the peer group is a strong and important facilitator of socialisation. The means of 3.27 and 3.33 in years 2 and 3 do not suggest that this is the case. The change between the second and third years is not statistically significant, although its direction may imply that the group perspective became less important to trainees as they progressed through training. The responses to the check variable statement “I take account of the opinions of my peer group when deciding how to carry out my job” supports this idea. The increase in its mean from 3.08 in year 1 to 3.53 in year 3 is indicative of waning of agreement with the statement. The mean for conformity motivation was 3.7 in both years which indicates that the members of the sample did not strongly agree nor disagree with the conformity statements. The mean response of 2.3 in both years for acceptance by co-workers reveals that most subjects were reasonably confident about their membership of the peer group. One interviewee exhibited her confidence as follows:

“We’re actually having a big debate about this at the moment (with peers) - whether you need to be in what we call “the cool gang” to get on. These are a set of people who are really cliquy and clingy with the main partner. But I think that people who are outside it like myself are saying that you can get on without being in the cool gang. If you’re good, I think you can get on anyway.”

The next group of variables in Table 7.3 are concerned with perceptions of the power of the firm over trainees. Three of the means for the five types of power, reference, legitimate and expert, displayed significant increases, indicating that they were perceived to have fallen over the training period. The reward power mean moved in the same direction, but not significantly (2.27 to 2.46). Only coercive power remained relatively stable at around 2.7. The decline in trainees’ perceptions of their firms’ power over them is not especially surprising given the nature of the three year training programme. Most are aware from a relatively early stage in training that their career progression and job security are dependent

upon professional examination success. During the early years, firms are therefore in a position of power. The pressure this creates for the trainees was expressed clearly by interviewees:

“If you didn’t work well then it would be “bye bye”, and if you fail your exams it’s the same.”

“I feel very dispensable, I think this is one of the reasons I work as hard as I do, to make an impression - almost to counter any situation where I am not quite exactly the sort of person they might like. You know at the end of the day the partners like what they like - that’s the trouble.”

“If you don’t get results in a firm like X, then you are nowhere. And they point out when you start in terms of firing you if you fail exams that if you don’t get results then they are not interested in you. They are ruthless in a lot of senses. It’s all so insecure.”

Towards the end of training, however, trainees typically become less insecure and more aware of the career options which will soon be available to them. The decline in expert and legitimate power indicates respondents’ increasing confidence in their own professional, managerial and technical abilities. It also suggests that they are less willing to accept the implications of hierarchical firm structures. This awareness of hierarchy emerged in the third year interviews:

“When I started I was under the impression that everyone was treated as an equal - the only difference is your level of experience. But it feels very hierarchical now: ‘You’re a senior, like it or lump it, shut up, I’m a partner’.”

“Certainly in my experience it’s been a strict hierarchy. If somebody a couple of years above you wants you to do something, by God, you do it!”

The need to “fit in” and maintain similarity, measured by reference power also becomes weaker over the training period. Willingness to tolerate unreasonable demands declines as many trainees anticipate new career options and earning power after qualification, and the power of firms to reward individuals becomes less important:

“If you don’t typically hold the methods and the standards by which you are judged in particularly high regard, then I think you start to be less bothered about the results (of the appraisal system).”

These data on declining power are consistent, also, with declining organisational commitment. The only dimension of power which remained unchanged over the period was coercive power. This suggests that trainees were equally aware at the end of the training period of the negative sanctions available to the firm as they were at the start. In terms of ethical behaviour, this fits in with Schlacter's (1990) discussion of the negative sanction environment in the profession, covered in chapter 4. In this environment, accountants come to expect that any disregard for ethical standards could severely jeopardise their career prospects, whereas a lifetime of integrity might have little impact on career progression. The impact of this environment was made during the third year interviews:

“The fear of being booted out is a strong thing. I think it becomes more important as you go on as well. Now I'm qualified, I'd be totally p\*\*\*\*\* off if they took it [the qualification] off me.”

“[unethical behaviour] wouldn't be tolerated at all. And I also think it would be made an example of. So everybody else realises that if you go down that path then you take the risks that come with it.”

Within-period examination of the power data reveals that, of the different aspects of power, expert power (e.g. “I trust the judgement of managers and partners in this firm”) is ranked as the strongest followed by reward power. The ranking of these two power types first and second is consistent across years. Coercive power is third in the second and third years, and fourth in the first. The remaining two, reference and legitimate power, are generally ranked lowest.

The model developed in chapter 4 posits that certain pressures can act as disincentives to the adoption of organisational values in ethical decision making. Trevino (1986) specified these pressures as being associated with time, scarce resources, and competition. As discussed in section 5.4.3.10, external pressures were operationalised using scales to measure a range of features of the trainee accountants job, namely role conflict, role ambiguity and job characteristics. The *a priori* and emergent factor means for role conflict and ambiguity indicate increased conflict and ambiguity<sup>1</sup> arising from time pressure (“roletime”), lack of resources, having to work for people with different standards and ideas and “having to do things that I believe should be done differently”. These sorts of pressures were discussed by

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<sup>1</sup> Role conflict is coded in the reverse direction to role ambiguity.

interviewees, especially in the second and third years. The following observations were typical:

“We’re always being harassed to cut costs all the time, cut hours and cut all sorts of things. We’ve got this new approach - not to document what you’ve tested, only to document any exceptions.. You’re saying no exceptions noted and signing it - that means you’ve done it, because you’re meant to be a responsible person. Anybody could, you know if you’re running out of time... not to bother...you just put no exceptions noted and nobody ever knows. That’s the pressure to cut costs in a big, big way.”

“That’s what they’re really promoting. That we’re not just auditors ... they’re trying to change us into business advisers, but we’re not, we’re trained accountants. So I think sometimes when I go out to clients and I’m talking to sales directors, what do I know about sales? All I know is based on common sense. I sometimes feel a bit inadequate when that is their job. You’re an accountant and you know about figures, and you come in and have to try to pretend you know all about their market....”

Of the job characteristics, the significant increase in the mean of feedback between the first and third years indicates that trainees felt that they were receiving less feedback on their performance with the passage of time. One interviewee noted:

“Occasionally you get praised at the end of a job. But if they do give you praise it’s not very frequent. Feedback is not that frequent - it’s supposed to be three-monthly, but I’ve been here nearly two years and I’ve only got four ratings forms.”

The decrease in the task identity mean suggests that trainees were able to see projects through to completion more frequently and the decline in the mean for “jci oth em” indicates that dealing with others became an increasingly important characteristic of the job over time. Using the JCI data within periods can also give a relative description of the trainee accountant’s job. For instance, dealing with others appears to be the strongest aspect of the job whilst there is relatively little variety or feedback in the job. Certainly, dealing with others, and the increase in confidence this gave to trainees, emerged as important themes in the interviews:

“The way training has changed my personality is that I am more confident with other people, because I have to be able to deal with clients all the time.”

“You’ve got to get more confident just from dealing with people all day long and from being resilient enough to survive the treatment the firm gives you.”

The impact of these external pressures on ethical judgement is explored in the context of multivariate data analysis later in this chapter and in the next chapter.

The next four variables in Table 7.3 are from the organisational goals scale. The first, “orgval em”, is the emergent factor representing values relating to the firm’s success (e.g. efficiency, profit maximisation, stability). The second factor, “orgval csr” includes the two service value items which, for the purposes of the current thesis, capture a “social responsibility” dimension. The remaining two variables are the original dimensions of productivity and leadership identified by the authors of the scale, as discussed in section 6.5.2. None of these variables showed any significant change between years 2 and 3. A noticeable yet unsurprising feature of these data is the difference between the value for the firm’s success factor compared to that for the social responsibility factor. Social responsibility is perceived by trainees to be considerably less important to firms than efficiency, profit maximisation, etc. Some of the interviewees were actually seemed to become quite cynical about this by the final year:

“I’d say 99.9% of people work at *Firm X* for the money - I think it’s money that drives everybody. And obviously its the ultimate profit of the company that drives the departments.”

“The mission statement is about 200 lines long. But at the end of the day it is something like “to be a world leader in the provision of professional services”. The cornerstones they base that mission on is people development. Which until recently has been a load of b\*\*\*. I don’t think they’ve ever been interested in that.”

The remainder of Table 7.3 presents descriptive statistics for the scenario responses. Further statistics in the form of frequency histograms for the dependent variables are provided in Appendix 3. The tax referral scenario was only used in year 1 and produced unidimensional responses with a mean of 4.47. This represents a neutral position on the seven point scale. The premature audit sign-off case, used in years 2 and 3, was also unidimensional. The mean response increased from 4.84 to 5.07, indicating that subjects judged the action as marginally, not significantly less acceptable in year 3 than in year 2. The final four variables represent the different dimensions of the flammable pyjamas case as discussed in section 6.5.4 (personal, professional, 7-item scale mean and conflict between personal and professional). In all three years, there was a large difference between personal and professional assessments of the scenario. As suggested in section 6.5.4, this points to the likelihood of two sets of values, personal and professional, being employed to interpret the

same situation. Using personal values, subjects judged the behaviour described in the scenario to be less acceptable than when using professional considerations. This gap is maintained through the three years. The presence of the two dimensions from the start suggests that subjects believe, on entry, that the profession requires them to act in a way which does not accord with their own personal values. Further, paired samples t-tests, details of which are provided in Table 7.4, showed that the dissonance between personal and professional judgements increased over time due to a significant change in the professional dimension mean. This suggests that a combination of training, socialisation and work experience strengthened subjects' conviction of what the profession requires. It may be the case that trainees have learnt that whatever their personal judgement of a situation, the accounting world works in a certain way - in this case, to protect client confidentiality. A further interesting result from the t-tests is the significance of the change in the mean for the whole 7-item scale. It moved in the same direction as the professional dimension mean, implying that professional considerations became more influential in ethical decision making over time. This is consistent with the socialisation literature which highlights the powerful organisational and professional norms which affect graduate trainees early in their training experience.

*Table 7.4: Paired samples t-tests of scenario responses over time*

Scenario and dimension	Mean			No. of pairs	Level of significance
	Year 1	Year 2	Year 3		
FP case - personal	5.27		5.08	74	0.33
FP case - personal		5.20	5.08	51	0.55
FP case - personal	5.20	5.22		110	0.91
FP case - professional	3.32		2.78	74	0.02
FP case - professional		2.66	2.82	51	0.40
FP case - professional	3.08	2.73		110	0.03
FP case - mean	4.24		3.81	74	0.02
FP case - mean		3.78	3.84	51	0.63
FP case - mean	4.07	3.85		110	0.09
FP case - conflict	1.95		2.29	74	0.12
FP case - conflict		2.54	2.25	51	0.32
FP case - conflict	2.12	2.48		110	0.05
Audit sign-off - mean		4.88	4.87	52	0.94

The aim of subsequent multivariate data analysis presented later in this thesis is to explore the nature of the interrelationships between ethical judgement and the various individual and situational factors discussed above. In order to begin to discern the presence of relationships

in the data, an initial step was to calculate bivariate correlations between some of the important variables. These are discussed in Appendix 2.

### **7.3 Testing of hypotheses**

The model developed in chapter 4 generated a number of different of hypotheses, cross-sectional and dynamic. The remainder of this chapter is devoted to presenting the methods and results of testing the cross-sectional hypotheses. For ease of reference the figure depicting the model to be tested is reproduced here (Figure 7.1) annotated with the hypothesis numbers. Also for reference purposes, Tables 7.5a and 7.5b attempt to provide an “audit trail” through the thesis starting with cross-sectional hypothesis numbers through dependent and independent variable operationalisation, measurement, to preliminary data analysis resulting in the final set of variables which are used in hypothesis testing. Table 7.5b should be read as if it were a horizontal extension of Table 7.5a, i.e. as if it followed on widthways from Table 7.5a.

The hypotheses to be tested fall into two different categories. The majority of hypotheses concern the effect of various factors on ethical judgement. These form the first group of hypotheses which are tested using multiple regression analysis, discussed in section 7.3.1. The second group are the hypotheses concerning the interrelationship of personal and organisational values. They are addressed in section 7.3.2.

#### **7.3.1 Ethical judgement hypotheses**

The hypotheses to be tested in this section are all the  $H^C$  hypotheses except  $H^C_{6a}$ ,  $6b$ ,  $6c$  and  $H^C_{3c}$ . The next section will outline the method used to test this main group of hypotheses and the underlying rationale for the approach taken. Section 7.3.1.2 will discuss the guidelines followed and the diagnostic procedures adopted to ensure good model fit and to deal with outliers. Then, in section 7.3.1.3, the results of the regression models estimated are described by year. Finally, in section 7.3.1.4 the extent to which the regression results support the ethical judgement hypotheses is discussed.



Figure 7.1: Model of the ethical judgement of accountants annotated with hypothesis numbers.

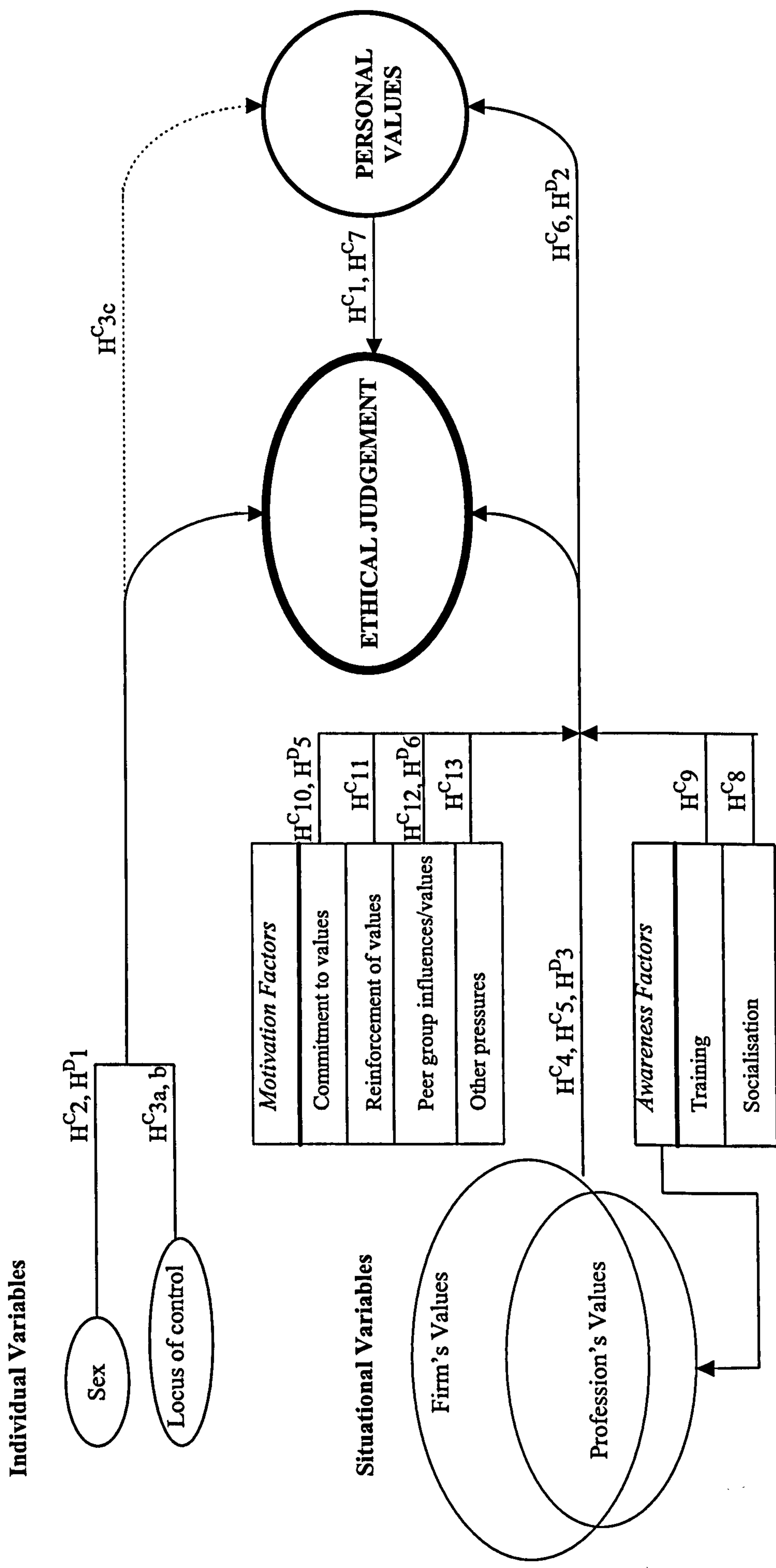


Table 7.5a: Summary/control sheet of cross-sectional hypothesis testing

Hypothesis	Dependent variable	Section no. for op <sup>n</sup> details	Variables derived and section no. for expl. data analysis	Independent variable	Measurement scale used for operationalisation (op <sup>n</sup> )	Section no. for op <sup>n</sup> details
H <sup>c</sup> 1	Ethical judgement <sup>⊕</sup>	5.4.3.11	<i>pyjpers</i> <i>pyjprof</i> 6.5.4 (Table 6.19)	Personal values <sup>⊕</sup>	Rokeach Value Survey Rokeach Value Survey Richins' materialism	5.4.3.1
H <sup>c</sup> 2	Ethical judgement	-	-	Gender	Direct question	
H <sup>c</sup> 3a	Ethical judgement	-	-	Locus of control	Rotter's locus of control	5.4.3.2
H <sup>c</sup> 3b	Conflict in ethical judgement	-	<i>pyjconf</i> = <i>pyjpers</i> - <i>pyjprof</i> 6.5.4	Locus of control	Rotter's locus of control	5.4.3.2
H <sup>c</sup> 3c	Personal values	5.4.3.1	<i>valsoc</i> , <i>dvri</i> , <i>valwork</i> , <i>valgen</i> , <i>valhed</i> 6.5.2 (Table 6.10)	Locus of control	Rotter's locus of control	5.4.3.2
H <sup>c</sup> 4	Ethical judgement	As above	As above	Firms' support of ethics	Hunt et al.'s ethical values of organisations	5.4.3.9
H <sup>c</sup> 5	Ethical judgement	-	-	Organisational values <sup>⊕</sup>	England's organisational values	5.4.3.7
H <sup>c</sup> 6	Personal values	As above	As above	Organisational values <sup>⊕</sup>	England's organisational values	5.4.3.7
H <sup>c</sup> 7	Conflict in ethical judgement	As above	As above	Personal values <sup>⊕</sup>	Rokeach Value Survey	5.4.3.1
H <sup>c</sup> 8	Ethical judgement	As above	As above	Organisational values <sup>⊕</sup> combined with (*) socialisation <sup>⊕</sup>	England's organisational values and Socialisation scale designed for this study	5.4.3.7 5.4.3.5
H <sup>c</sup> 9	Ethical judgement	-	-	Ethics training	Training questions designed for this study	5.4.3.12
H <sup>c</sup> 10	Ethical judgement	-	-	Organisational values <sup>⊕</sup> * commitment	England's organisational values and Mowday et al.'s organisational commitment	5.4.3.7 5.4.3.4
H <sup>c</sup> 11	Ethical judgement	-	-	Reinforcement contingencies <sup>⊕</sup>	Swasy's social power scale	5.4.3.8
H <sup>c</sup> 12	Ethical judgement	-	-	Influence of peers	Lennox and Wolfe's conformity motivation Check question designed for this study	5.4.3.6
H <sup>c</sup> 13	Ethical judgement	-	-	External pressures	Rizzo et al.'s role ambiguity and conflict Sims et al.'s job characteristics inventory	5.4.3.10

⊕ Conceptualisation of these constructs is discussed in s.5.4.1.

**Table 7.5b: Summary/control sheet of cross-sectional hypothesis testing**

Hypo-thesis	Independent variable	Variables derived from measurement scales ( <i>variable names in italics</i> )	Derivation (key at foot)	Location of prelim. analysis detail
H <sup>1</sup>	Personal values	<i>val s.o.c.</i> - strength of conviction index <i>dvri</i> - difference between "pleasure" and "equality" items from Rokeach Value Survey <i>permat</i> - materialism factor dealing with scale	SO OTH MS	s.6.5.2 t.6.10
H <sup>2</sup>	Gender	<i>sex</i>	DS	-
H <sup>3a</sup>	Locus of control	<i>locsum</i> - locus of control	MO	s. 6.5.2
H <sup>3b</sup>	Locus of control	<i>locsum</i>	MO	-
H <sup>3c</sup>	Locus of control	<i>locsum</i>	MO	-
H <sup>4</sup>	Firms' support of ethics	<i>fethics</i> - ethical values scale mean	MO	s. 6.5.3.1/t. 6.16
H <sup>5</sup>	Organisational values	<i>orgval csr</i> - emergent social responsibility factor from organisational values scale	MEF	s.6.5.3.1/t.6.14 & 6.17
H <sup>6</sup>	Organisational values	<i>orgval csr</i> - as above	MEF	-
H <sup>7</sup>	Personal values	<i>orgval em</i> - emergent business goals factor from organisational values scale	MEF	-
H <sup>8</sup>	Organisational values combined with (*) socialisation	<i>val s.o.c.</i> <i>soczn *orgval</i> - socialisation scale mean * emergent organisational values factor	SO CP	As above s. 6.5.3.1 / t. 6.14 through 6.17
H <sup>9</sup>	Ethics training	<i>hrsethics</i> in year 1 - number of hours non-exam related training in professional ethics <i>firmsup</i> in years 2 and 3 - firm support of ethics by providing in-house training	DS DS	- -
H <sup>10</sup>	Organisational values * commitment	<i>comt *orgval</i> - firm commitment scale mean * emergent organisational values factor	CP	6.5.2
H <sup>11</sup>	Reinforcement contingencies	<i>crc pwr, ref pwr, lgt pwr, etc.</i> - factors from the social power scales where emergent=a priori <i>rwd pwr, xpt pwr</i> - a priori factors from the social power scales	MEF=MAF MAF	s. 6.5.3.1 t. 6.11 and t. 6.17
H <sup>12</sup>	Influence of peers	<i>conform</i> - conformity motivation scale mean <i>peer pwr chk</i> - peer's power check variable <i>peer *orgval</i> - conformity motivation scale mean * emergent organisational values factor	MO DS CP	6.5.3.1/t. 6.16 - -
H <sup>13</sup>	External pressures	<i>raem, rcem</i> - role conflict and ambiguity emergent factors <i>jcivar, jcifbk</i> - factors from the job characteristics scale where emergent=a priori <i>jciaut, jcioth, jcuid, etc.</i> - a priori factors from the job characteristics scale	MEF MAF=MEF MAF	s. 6.5.3.1/t. 6.12 & 6.17 s. 6.5.3.1/t. 6.13 & 6.17 -

☉ Conceptualisation of these constructs is discussed in s.5.4.1.

Key to variable derivation method

MO Mean of original scale

MS Mean of subset of original scale

N.B. Where different, a priori factor means were calculated in addition to emergent factor means for use in regression analysis as described in section 7.3.1.2.

DS Direct score from questionnaire

SO Sum of original scale

MEF Emergent factor mean  
MAF A priori factor mean

CP Cross product

OTH Other derivation as described in this table

### 7.3.1.1 Hypothesis testing method and methodology

Testing of the ethical judgement hypotheses was performed using a series of linear regressions. Exploratory data analysis in chapter six (section 6.5.4) generated six different ways of examining responses to the scenarios (five for the multidimensional FP case and one for the tax referral or audit sign-off scenarios, depending on the data collection period). These were used as the basis for bivariate correlations in section 7.2.2. They are now used to run six regressions for each model specified. This approach allows the researcher to gain a more in-depth understanding of the factors influencing different aspects of ethical decision making.

A shortcoming of much empirical testing in ethical decision making is that it requires the researcher to specify in advance what constitutes an ethical or an unethical response to a scenario and to interpret empirical findings in the light of this. In the FP case, for example, it makes little sense to decide in advance what the more ethical response is, because it may be different for different dimensions. The FP case thus illustrates first, the potential for multidimensionality and complexity in ethical decision making, second, the need for a research methodology that can accommodate it, and third, a justification for the use of multidimensional ethics scales. In this study, the approach taken to hypothesis testing is to examine factors which are related to strength of response. This is not to say, however, that the hypotheses do not imply or specify direction of influence, or that subsequent discussion of the results may not be in terms of what is more or less ethical. Rather, that the research methodology does not involve or depend on an *a priori*, normative judgement of what constitutes an ethical or unethical response. Further, where multidimensionality exists, it is impossible to define a single dependent variable which constitutes “ethical judgement”. In each regression estimated, we are examining the hypothesised relationships in terms of the power of variables to explain how the data varies.

The following cross-sectional model was specified on the basis of the hypotheses developed in chapter 4:

$$EJ_t = f(\text{Personal values, Sex, LOC, Firm's support of ethics, Organisational values, "Orgval"} \times \text{Socialisation, Non-exam-related ethics training, "Orgval"} \times \text{Commitment, Reinforcement contingencies, Opinion of peers, Opinion of peers} \times \text{"Orgval", External pressures})_t.$$

where  $EJ_t$  = ethical judgement in time  $t$

The constructs included in this model are those which are specified as influencing ethical judgement in the hypotheses generated in chapter 4. Included in the model, there are a number of cross-product variables (organisational values multiplied by socialisation, commitment and opinion of peers). As explained in section 6.6, these variables represent the interactive effect of two independent variables on the dependent variable, following a methodology used most notably in the field of ethical decision making by Tsui and Gul (1995). In this study,  $H^C8$ , 10, and 12 deal with interactions of this nature. For example,  $H^C8$  posits that the effect of organisational values on individuals' ethical judgement is moderated by the intensity of organisational socialisation. Using the methodology outlined in section 6.6, a cross-product variable incorporating organisational values and socialisation is calculated and included in the multiple regression model. The same approach is taken to the interactions in  $H^C10$  and  $H^C12$ , between organisational values and commitment and organisational values and peer group influence respectively.

Table 7.6 summarises the constructs included in the model, linking them to the appropriate hypothesis number and indicating in which time periods they were included. The variables used to operationalise the general model have been discussed in detail in section 5.4.3. The aim was to test each hypothesis in as many time periods as the data would allow. For example, personal values data was collected in the first and third years, so the hypotheses relating to personal values were tested in both these periods. The lack of personal values data in the second year effectively means that the regression models run in that period were likely to be incompletely specified. One would expect the result of the misspecification to include lower levels of model significance and  $R^2$ . This applies in each year to the extent that data concerning hypothesis constructs are not available.

### **7.3.1.2 Diagnostic methods and model fitting procedures**

Hair et al.'s (1995, p.23-24) general guidelines for multivariate analysis were adopted as principles to guide the process of analysis and interpretation. These guidelines are as follows:

- Establish practical as well as statistical significance
- Carefully consider the effects of sample size on all results

- “Know the data” i.e. make full use of diagnostic techniques to generate a greater understanding of the data
- Strive for model parsimony
- Give detailed consideration to the residuals to diagnose the validity of results and to give an indication of remaining unexplained relationships
- Validate results

*Table 7.6: Summary of ethical judgement (EJ) model constructs, hypotheses and testing time periods*

Independent variables in EJ regressions	Direction of influence on ethical judgement (unless otherwise stated)	Hypothesis number	Specified in cross-sectional regression model?		
			Year 1	Year 2	Year 3
Personal values	Positive	H <sup>C</sup> 1, 7	✓		✓
Gender	Female > Male	H <sup>C</sup> 2	✓	✓	✓
Locus of control	Internal > External	H <sup>C</sup> 3a, 3b	✓		
Firms' support of ethics	Positive	H <sup>C</sup> 4		✓	✓
Organisational values	Positive	H <sup>C</sup> 5		✓	✓
Organisational values * socialisation	Organisational values more influential with stronger socialisation	H <sup>C</sup> 8		✓	✓
Non-exam-related ethics training	Positive (on ability to resolve dilemmas)	H <sup>C</sup> 9	✓	✓	✓
Organisational values * commitment	Adoption increases with stronger commitment	H <sup>C</sup> 10		✓	✓
Reinforcement contingencies	Not specified	H <sup>C</sup> 11	✓	✓	✓
Opinion of peers	Not specified	H <sup>C</sup> 12	✓	✓	✓
External pressures	Negative	H <sup>C</sup> 13	✓	✓	✓

All of these guidelines are important, but one in particular was considered vital for the current study. It is the need for model parsimony. While it is always important to attempt to avoid specification error caused by omitting significant explanatory variables, there are several undesirable effects of including irrelevant variables. First, inclusion of more variables increases the risk of multicollinearity which can have the effect of masking the “true” significance of relevant variables. The risk of multicollinear variables in the current

study was considered to be reasonably high since many of the scales measure attitudes and values, constructs where interrelationships might reasonably be expected. For this reason, a fairly conservative approach was taken to examining and dealing with the collinearity diagnostics. They were carefully inspected for each regression model estimated, and any variable with a Variance Inflation Factor (VIF) of 2 or more (Hair et al., 1995, suggest that 10 is a common cut-off point) was excluded and the model re-estimated. A second effect of including many irrelevant variables is the reduction in degrees of freedom. It was considered important to avoid this reduction in degrees of freedom due to the relatively small size particularly of the year 3 and longitudinal data sets. In order to achieve more parsimonious models, regressions were initially run with all possible hypothesised variables included, but were then re-estimated excluding groups of variables which clearly held no explanatory power and which were not specifically mentioned in the research hypotheses. For example, the first iteration of the models included all five dimensions of the power construct. In the regressions results reported in this section, however, the insignificant dimensions were excluded. Thus in Table 7.7, expert power only appears in the case of the model with the FP sum explanatory variable, as this was the only model in which it was significant. Coercive power is retained in all the models, even though it is insignificant in most cases, because it is central to one of the hypotheses ( $H^{C11}$  - “negative reinforcement contingencies”). In a second iteration of the models, the *a priori* factor means were used instead of the emergent factor means. This tended to reduce levels of  $R^2$  slightly. As expected, however, there were few other differences, for example, in terms of significant regressors, to the models reported in this thesis. In summary, the general approach to variable selection is confirmatory specification with some elements of backward elimination being employed in order to increase parsimony and to reduce multicollinearity.

Hair et al. (1995, p. 22) say that establishing practical significance is about asking “so what?”. By drawing on the experience of the researcher as a trainee Chartered Accountant, and the experiences of interviewees reported in chapter 9, some “feel” for the meaning of the results can be gained. One of the means of validating results suggested by Hair et al. is gathering different samples to test for the same relationships. This helps to ensure that the data has not been “overfitted” to a particular data set, thus rendering the model unrepresentative of the population. As the membership of this study’s cross-sectional samples includes a relatively small core common to each of the three data collection periods, the research design of estimating the same basic model in each time period provides some

evidence of this type of validity. The remaining two of Hair et al.'s guidelines, the effect of sample size and procedures to examine residuals, are addressed in the discussion which follows.

The general procedure adopted for the regression analysis is now discussed. The significance of each regression model estimated was assessed by reference to the adjusted coefficient of determination ( $R^2$ ) and the test statistic  $F^1$ . Published empirical studies of ethical decision making have reported  $R^2$  as low as 7.5% (Singhapakdi and Vitell, 1993, using vignette responses as the dependent variable). Perhaps more representative of the levels of  $R^2$  generally reported in the literature, however, is Akaah and Lund's (1994) study of personal and organisational values in which  $R^2$  is 15%. Both of these studies attribute the remaining variation in the data to the many other factors besides values influencing ethical decision making. The current study has attempted to incorporate some of these "other factors" e.g. locus of control, reinforcement contingencies, training, etc. There remain, however, potentially important factors which are not captured by the current study such as family background, personality and life experiences. Accordingly, realistic *a priori* expectations of  $R^2$  for the cross-sectional regression models in this study range between 10 and 50%. For every regression model estimated, plots of residuals were used to check for violation of the OLS assumptions of heteroscedasticity and non-linearity. Histograms of the residuals and normal probability plots were checked for evidence of non-normality.

Various steps were taken to identify and deal with outliers. Initially, employing Hair et al.'s rule of thumb (1995, p. 155), any observations with studentised residuals greater than  $\pm 2.0$  were highlighted. The impact of each observation was then assessed using DFBeta which measures the change in each regression coefficient when the observation is deleted. The threshold of 1.0 was applied (Hair et al., 1995, p. 157). Further, Cook's distance was calculated and examined. This statistic assesses both the change in predicted values when the observation is deleted and the observation's distance from other observations (leverage). A common rule of thumb is to consider values of Cook's distance of 1.0 or greater. Values for the current study's data were, however, considerably lower, nearer 0. Attention was therefore directed at cases where Cook's distance was notably higher than for the majority of other cases. The procedure adopted once cases had been identified as influential

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<sup>1</sup> The F ratio is used to test the hypothesis that the regression model explains more of the variance than the mean does.



observations was to re-estimate the regression models without them and to note any change in explanatory variables in terms of their significance or the direction of their impact on the dependent variable. If there were no material changes, it was concluded that outliers were not problematic. In some cases, outliers *did* have a significant effect. These situations are addressed individually as they arise in the discussion which follows.

Standardised beta coefficients are reported in the results tables. They give an indication of the relative importance of the explanatory variables in relation to the dependent variable for the range of data present in the data set. Hair et al. (1995) note various cautions when using beta coefficients, including the need to use them only in the presence of minimal multicollinearity. This is assured by the use of the relatively low level of VIF = 2 used as a cut-off in this study. The results tables give sample sizes for each regression model. They range from 351 in the first year to 82 in the third year. Large sample sizes (more than 200 or 300) can render the significance tests oversensitive. It therefore becomes particularly important to establish practical as well as statistical significance. A comparison of the results in the first year with those for the second and third years does not indicate the presence of many more significant variables, although the levels of significance do appear to be systematically higher. This is unlikely, however, to cause any major problems in the discussion and interpretation of the results. The effect of very small sample size is that only very strong relationships can be detected with a reasonable degree of certainty. Sample size thus has an important role in determining statistical power. Hair et al. present a table of minimum  $R^2$  that can be considered statistically significant with a power of 0.80 at various sample sizes and numbers of independent variables. Interpolating roughly from the table, a sample size of 80 with 12 regressors requires a minimum  $R^2$  of about 22% (at a significance level of 5%). The lowest actual adjusted  $R^2$ s of 19% for the audit sign-off case is reasonably close to this. It can be concluded, therefore, that the effects of sample size are unlikely to generate misleading multiple regression results in any of the years.

### **7.3.1.3 Description of results of multiple regression analysis**

In this section, the results of the regression models estimated are described by year before proceeding in section 7.3.1.4 to discuss the extent to which the results support the ethical judgement hypotheses.

The year one data generated significant models on four of the five dependent variables. The only insignificant model was the professional dimension of the FP case. As described in section 7.3.1.2, an initial set of regressions was estimated including all possible hypothesised variables. As can be seen from Table 7.6, none of the hypotheses involving organisational values, socialisation or conformity motivation could be tested in the first year (numbers H<sup>C</sup>5, 8, 10, and 12) as these variables had not been included in the questionnaire. In year one, however, firm and professional commitment data were collected. Since hypothesis H<sup>C</sup>10 dealing with the interactive effect of organisational values and organisational commitment could not be tested, it was decided to include the commitment variables in the initial set of regressions to assess whether they had any *direct* effect on ethical judgement. Note also that, as discussed in section 5.4.3.12, non-exam-related ethics training was operationalised differently in the first data collection period than in the subsequent periods using “hrsethics” rather than “etrdays”. Following the initial set of regressions, all insignificant commitment, job characteristics and power items except coercive power were excluded in the next run of models. In a third run, the models were re-estimated using the emergent value factors (work, general and pleasure) in the place of valsoc and dvri. This generally resulted in a small decrease in model fit with valwork tending to replace valsoc. The significance of the value factors was, however, considerably weaker than that of valsoc and/or dvri. There were no other differences between the value factors and valsoc/dvri in terms of significant coefficients or direction of influence. The models reported in Table 7.7 therefore include the latter. Procedures described in section 7.3.1.2 for investigating outliers were employed. This resulted in 14 cases eliminated for models 1 and 4 and 13 cases for models 2 and 3. When each model was re-estimated, R<sup>2</sup> increased by between 2% and 8%, but no changes were noted in significant variables or in the direction of significance. The models reported are the ones with the outliers deleted.

The difference in the R<sup>2</sup> values for the year one models is interesting. Adjusted R<sup>2</sup> for the tax referral case was 21%, for the FP personal dimension, 17%, and for the FP sum and conflict models, 6% and 5% respectively. Models 1 and 2 therefore appear to be considerably stronger in terms of explaining variance in the first year data. The difference may lie in the number of significant regressors. For the FP sum model (model number 3), the only significant variables (at 5%) were “valsoc”, “dvri” and “pcommt”, and for the FP conflict model (number 4) they were locus of control and coercive and legitimate power. Also, given that the professional dimension failed to yield a significant regression model, it is unsurprising

**Table 7.7: Results of linear regressions on aspects of ethical judgement in year 1**

Regressand Regressors	Tax referral	Flammable pyjamas			
	Sum Model no. 1	Personal Model no. 2	Professional	Sum Model no. 3	Conflict Model no. 4
val s.o.c. (-)	-0.125** (-2.277)	-0.220*** (-3.959)	<i>Insignificant model</i>	-0.134** (-2.293)	-0.073 (-1.209)
dvri (+)	0.014 (0.267)	0.134*** (2.502)		0.150*** (2.662)	0.003 (0.048)
per mat (-)	0.064 (1.203)	-0.027 (-0.492)		0.018 (0.312)	-0.052 (-0.923)
sex (+)	0.273*** (5.129)	-0.006 (-0.103)		0.006 (0.108)	-0.033 (-0.575)
locsum (-)	-0.033 (-0.663)	-0.062 (-1.220)		0.040 (0.752)	-0.106** (-1.964)
hrs ethics (-)	0.026 (0.527)	-0.103** (-2.045)		-0.050 (-0.933)	-0.051 (-0.954)
f ethics (-)	-0.075 (-1.504)	0.014 (0.262)		0.038 (0.704)	-0.059 (-1.082)
pwr crc (-)	-0.032 (-0.585)	-0.067 (-1.258)		-0.022 (-0.399)	-0.158*** (-2.819)
pwr rwd ?	0.209*** (3.963)				
pwr ref ?		0.105* (1.850)			
pwr lgt ?		0.138*** (2.540)			0.148*** (2.612)
peer pwr chk ?	0.025 (0.481)	0.010 (0.184)		0.034 (0.609)	-0.064 (-1.129)
raem (-)	0.033 (0.631)	-0.031 (-0.564)		-0.017 (-0.306)	0.045 (0.780)
rcem (+)	0.044 (0.862)	0.152*** (2.892)		0.106* (1.913)	0.088 (1.561)
jci variable ?	0.146*** (2.928)	0.115** (2.245)			
fcommt (-)		-0.204*** (-3.032)			-0.105* (-1.773)
pcommt (-)	-0.159*** (-3.022)	0.213*** (3.308)		0.189*** (3.390)	
t <sup>constant</sup>	4.676***	7.581***		6.486***	4.994***
Adj R <sup>2</sup>	0.21	0.17		0.06	0.05
F =	7.598	5.363		2.857	2.383
Signif. of F	0.000	0.000		0.001	0.005
n =	342	347		351	346

\* significant at 10%      \*\* significant at 5%      \*\*\* = significant at 1%

Additionally, coefficients significant at 5% or less are shaded.

Signs in parentheses in the first column indicate hypothesised direction of influence

Figures in parentheses are t-statistics. Figures not in parentheses are standardised coefficient betas.

that the sum dependent variable generated a relatively weak fit. The feature common to the significant models except the conflict model is the influence of the strength of conviction value variable. The negative coefficients indicate that higher strength of conviction corresponds to judgements of unacceptability of the scenarios. Furthermore, *dvri* is significant on the FP personal and sum models indicating that the higher subjects ranked equality over pleasure, the more likely they were to judge the scenario as unacceptable and to think the auditor was wrong not to blow the whistle on the client company. Significance levels for these variables are high, mostly less than 1%, indicating considerable support for hypothesis H<sup>C</sup>1. The values variables are, however, insignificant in the conflict case. We will return to discuss the conflict case after first examining, comparing and discussing models 1 to 3 in more detail.

There is another variable which is highly significant in all three models, tax referral, FP-personal, and FP-sum, that is professional commitment. However, closer inspection reveals that the direction of influence is in opposite direction for the two different scenarios. In the tax referral case, strong commitment to the profession generates judgements of the corporate entertaining/gifts as unacceptable. In the FP case, the converse is true, that strong commitment generates acceptance of the auditor's actions not to expose the client. This finding illustrates quite powerfully how ethical decision making is situation specific. In the first case, commitment to the profession appears to condemn any behaviour which might be interpreted as bribery or in breach of independence requirements, and in the second case it either generates a need to protect the client's interests or it follows from an awareness of the rules concerning audit scope and duty of care. The behaviours appear to be different characterisations of the "professional ethic", relevant in different circumstances. However, they are an indication of a broader point that even in the early stages of training, graduate accountants are influenced by considerations relevant only in the occupational context. Confusing matters further is the finding that *firm* commitment is also significant ( $p=0.01$ ) in model 2, FP-personal, but in the opposing direction to professional commitment, i.e. the *more* committed a trainee is to the firm, the *less* accepting he/she is of the auditor's protection of the client perhaps because not disclosing a client's unethical activities may bring disrepute to the firm. Further discussion of these results would increasingly require speculation as to trainees' hidden motivations, and is not considered a profitable direction for the purposes of this thesis. It is sufficient perhaps to note that there appear to be some inconsistencies and ambiguities concerning the direct effects of professional and firm

commitment on ethical decision making which may have arisen due to the early stage in training and/or to the insubstantial theoretical basis on which these constructs were included in the regression models.

Other variables influencing the assessment of the tax referral case as acceptable are being male, and perceiving reward power to be high and job variety to be low. Model one is the only cross-sectional model, in any year, which supports the influence of gender on ethical decision making ( $H^C2$ ). This is an interesting finding, given the existence of many studies supporting the hypothesis. As noted by Schminke and Ambrose (1997), however, there are a sufficient number of studies contradicting the effect of gender to conclude that the evidence taken as a whole is mixed. In the light, then, of what is clearly an unresolved issue, the current study's findings are unsurprising. Other influences on the judgement of the FP-personal case as acceptable are the perceptions of high job variety, role conflict, legitimate power and the receiving of more hours of training in professional ethics. It is noteworthy that the hours of training variable influences the *personal* dimension of the FP case, suggesting that the initial, often induction course coverage of professional ethics may have had a significant impact if not on trainees' personal values then on personal aspects of ethical judgement rather than aspects involving the firm or the profession. There are no further significant regressors in model 3 besides those already discussed, values and professional commitment.

As discussed above, model 4 suggests that explanation of the conflict<sup>1</sup> between personal and profession judgements of the FP case does not lie in personal values, unlike the other models. Rather it lies in coercive and legitimate power and in locus of control. The negative sign on the locus of control coefficient indicates that individuals with internal locus of control were more likely than externals to experience conflict between personal and professional dimensions, i.e. to consider the auditor's actions personally unacceptable but professional acceptable. This is consistent with hypothesis  $H^C3$ , that internals regard themselves as being in control of their own destiny, and are therefore more likely to do what they think is right and to take responsibility for such decisions whereas externals tend to rely on luck, fate, and chance which predisposes them against taking responsibility in their determination of right and wrong. The FP conflict model therefore offers some support for  $H^C3b$ . This support is, however,

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<sup>1</sup> Calculated as personal mean score less professional mean score.

weakened by the lack of significance of locus of control in the other models (hypothesis H<sup>C</sup>3a). This finding is not without precedent. For example, empirical testing of ethical decision making by Singhapakdi and Vitell (1990) also found locus of control to be insignificant. Unfortunately, locus of control data were only collected in the first time period, so are not available for inclusion in any other cross-sections. However, as locus of control is a relatively stable personality construct (Rotter, 1966), one would not expect it to change over time. If this is the case, it is not unreasonable, for example, to use year one locus of control data in year three values hypothesis testing. This approach is covered and discussed further in section 7.3.2. The locus of control theme will also be readdressed later in this chapter and in the longitudinal context in chapter 8. Further significant explanatory variables in the FP conflict model are coercive and legitimate power. Conflict between personal and professional assessment of the scenario is higher when coercive power is perceived to be high, and legitimate power low. Conversely, conflict is low when coercive power is low and legitimate power high. Intuitively, this is saying that conflict is less likely to arise when trainees do not feel that their employers are coercing them into behaving in certain ways, and when they believe that the employer has a legitimate right to prescribe behaviour. The lack of significance of *valsoc* and *dvri* (or any of the emergent value factors), and the corresponding lack of support for H<sup>C</sup>7 is difficult to interpret. Given the relatively low level of fit of the FP conflict model, however, it is not considered productive to speculate further.

The year two data produced four out of five significant models. Details are given in Table 7.8. In this time period, the FP sum model was insignificant, although the professional dimension did yield a significant model, the only time in any of the three years it did so. In the second year, values data were not collected, nor was locus of control. The missing values data in particular meant that the regression models estimated were, to an extent, misspecified. Adjusted R<sup>2</sup> values of 12% for models 5 and 6 and 9% for model 7 were calculated which, compared to year 3, were quite low. Model 8, the FP conflict model, however, yielded an adjusted R<sup>2</sup> of 19%, considerably higher than the other models. This is partly a result of the number of significant regressors in the model, and also the possibility that, as in the first year, the missing values data may not have provided any explanatory power had they been included.

To determine which variables to include in the regression models, the same procedures that were used for the year one models were employed, as described in section 7.3.1.2. That is, a first set of models estimated including all possible hypothesised variables was superseded by a second, more parsimonious set which excluded variables with insignificant or no explanatory power. All insignificant commitment, power and job characteristics items except coercive power were excluded in the second run of models. The first run of models had also revealed a number of variables which were multicollinear. These tended to be socialisation variables (“soczn” and “conform”), cross-product variables<sup>1</sup> using socialisation (“soczn\*orgval”) and variables involving the emergent organisational values/goals factor (“orgvalem”, “peer\*orgval”, “comt\*orgval”). The models were then re-estimated including each of these variables separately to establish if any of them were significant. In the final models reported in Tables 7.8 and 7.9, “soczn\*orgval” is left in, despite its insignificance, as it is central to one of the hypotheses (H<sup>C</sup>8), and its inclusion did not generate multicollinearity problems. Conformity motivation is included in the models where it proved significant. The other variables which caused multicollinearity were excluded, having been found insignificant.

Explanation of the variation in the data for the newly included audit sign-off case is provided by only one significant regressor, the job characteristic of autonomy. High perceived levels of autonomy are associated with judgements of unacceptability of the premature sign-off. Autonomy is associated with working on one’s own, and thinking for one’s self. If autonomy is low, trainees may perceive that they are not being allowed to direct their own work, rather they are being made to do their jobs in line with procedures laid down by others. This may generate a lower regard for those procedures, and a willingness to circumvent them, for example, in the manner described in the scenario.

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<sup>1</sup> This method is discussed in chapter 6, section 6.6.

**Table 7.8: Results of linear regressions on aspects of ethical judgement in year 2**

Regressand Regressors	Audit sign-off	Flammable pyjamas			
	Sum Model no. 5	Personal Model no. 6	Professional Model no. 7	Sum	Conflict Model no. 8
sex (+)	0.005 (0.057)	0.128 (1.597)	0.105 (1.274)	<i>Insignificant model</i>	-0.037 (-0.481)
f ethics (-)	-0.135 (-1.558)	-0.115 (-1.325)	0.152* (1.726)		-0.265*** (-3.183)
firm sup (+)	-0.021 (-0.257)	-0.075 (-0.946)	0.113 (1.379)		-0.148* (-1.911)
e tr days (+)	0.100 (1.225)	0.055 (0.684)	0.018 (0.214)		0.032 (0.402)
orgval csr (+)	0.130 (1.429)	0.150* (1.698)	0.041 (0.444)		0.025 (0.292)
soczn*orgval ?	-0.120 (-1.385)	0.020 (0.233)	0.041 (0.454)		0.077 (0.915)
pwr crc (-)	-0.114 (-1.338)	-0.157* (-1.818)	0.163* (1.858)		-0.206** (-2.468)
conform ?	0.107 (1.204)	0.126 (1.454)	-0.119 (-1.303)		0.143* (1.694)
raem (-)	-0.024 (-0.277)	0.007 (0.072)	0.225** (2.467)		-0.246*** (-2.646)
rcem (+)	0.085 (0.996)	0.166** (1.985)	0.127 (1.470)		-0.011 (-0.137)
jci var ?		0.236*** (2.895)			0.237*** (3.016)
jci aut ?	-0.195** (-2.366)				
jci fbk ?		0.209** (2.146)			0.208** (2.216)
jci oth ?			-0.209** (2.348)		
t <sup>constant</sup>	7.954***	2.696***	0.259		2.642***
Adj R <sup>2</sup>	0.09	0.12	0.09		0.19
F =	2.240	2.676	2.243		3.912
Signif. of F	0.015	0.003	0.016		0.000
n =	150	148	144		145

\* significant at 10%      \*\* significant at 5%      \*\*\* = significant at 1%

Additionally, coefficients significant at 5% or less are shaded.

Signs in parentheses in the first column indicate hypothesised direction of influence

Figures in parentheses are t-statistics. Figures not in parentheses are standardised coefficient betas.



Examination of the residuals for model 6 (FP-personal) indicated the possibility of heteroscedasticity. White's general heteroscedasticity test (Gujarati, 1995) was therefore used to detect it. This particular test was chosen over the frequently-used Breusch-Pagan-Godfrey test as White's is less sensitive to the normality assumption (Gujarati, 1995). On the basis of the White test, it was concluded that there was no heteroscedasticity<sup>1</sup>.

For the personal dimension of the FP case, the significant variables are role conflict, job variety and feedback. Trainees are more likely to judge the auditor's actions as personally acceptable if role conflict is high, and if variety and feedback are also high. Role conflict concerns conflict between internal standards and the defined role behaviour. Trainees who perceived role conflict to be low judged the auditor's behaviour to be personally unacceptable. Perhaps the lack of perception or awareness of a conflict between role- and internally-defined behaviour allowed individuals to bring their own standards to the case, and to judge it unacceptable, whereas those who perceived the presence of role conflict might accept that two different standards had to be applied. It is accepted, however, that such reasoning is necessarily interpretative. Similarly, the precise significance of job variety and feedback to the determination of personal acceptability of the scenario is difficult to ascertain. Suffice it to say at this stage that there are specific aspects of the organisational environment which influence ethical judgement. In the professional dimension of the FP case (model 7), it is low role ambiguity and the job characteristic of having to deal with others being low which makes trainees more likely to judge the auditor's actions acceptable. Role ambiguity concerns the degree of uncertainty about appropriate job behaviour. Role ambiguity is one of the variables chosen to operationalise negative job pressures which, it is hypothesises in H<sup>C</sup>13, lead to more unethical decision making. In this case, it was expected, but not found, that where role ambiguity is high, and trainees were unclear about what constitutes appropriate behaviour, they would be more likely to agree with protecting the client. The direction of influence in model 7 is therefore opposite to that anticipated and high role ambiguity is associated with considering protection of the client to be professionally

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<sup>1</sup> The White test involves estimating an auxiliary regression model of the original model's residuals on the original regressors, their squared values and the cross products of the regressors. Gujarati, however, justifies the omission of cross products where there are a large number of regressors on the basis that their inclusion would quickly reduce the number of degrees of freedom. The auxiliary  $R^2$  times  $n$  can be shown to follow a Chi-squared distribution with degrees of freedom equal to the number of regressors in the auxiliary regression. Heteroscedasticity is indicated if the value obtained exceeds the critical Chi-square value at the chosen level of significance. The 5% critical Chi-square value for 22 df is 33.9 and the 95% critical value is 12.34. The test statistic of 12.14 indicates that there is a very low probability of the presence of heteroscedasticity.

unacceptable. A possible reason for this unexpected result is that high ambiguity may have led trainees to be more reliant on their personal values in ethical judgement, leading to judging the scenario action to be unacceptable. This discussion of role ambiguity and of role conflict above<sup>1</sup> supports the idea that when trainees are aware of role defined ethical norms, such norms have the power either to influence personal values directly or to reduce the impact or relevance of personal values to ethical judgement in work situations. A final observation about the personal and professional dimensions of the FP case in year two concerns the significance of coercive power. This is significant at 10%, but in opposing directions - high coercive power appears to make the auditor's actions more professionally acceptable but more personally unacceptable. This is consistent with the year one regression analysis results.

The existence of conflict between the personal and professional dimensions in model 8 is influenced most noticeably (at 1%) by firms' ethics, role ambiguity and job variety. First, conflict tended to be higher when trainees did not believe that their firms dealt firmly with unethical behaviour. This suggests that the perception of conflict is associated with the ethical standards of the firm itself. Second, conflict is higher when role ambiguity is low - when trainees know what constitutes appropriate behaviour, it appears they are more likely to perceive a conflict between personal and professional norms. This is consistent with the discussion of role ambiguity in model 7. Third, conflict is higher when job variety is low. Low job variety may reflect always having to apply the same methods and approaches whether the individual trainee considers them appropriate or not - perhaps this is associated with conflict between personal and professional notions because of a perceived lack of flexibility in the professional approach. Significant at 5% are two further regressors, coercive power and the job characteristic feedback. Conflict is higher when coercive power is high and when feedback is low. It is reasonable to assume that feelings of coercion are indicative of having to do things one does not want to, or feels one should not - this is consistent with the notion of inner conflict. Finally, low feedback is associated with increased conflict - misunderstandings and conflict may be more likely to arise if, for instance, reasons and decisions are not being explained to trainees by superiors.

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<sup>1</sup> Role ambiguity and role conflict are coded in opposite directions.

The year three data generated significant models on three of the five dependent variables, audit sum, pyjpers and pyjsum. Details are available in Table 7.9. As described above, an initial set of regressions was estimated including all possible hypothesised variables. All insignificant power and job characteristics items except coercive power were excluded in the next run of models. As with the second year data, the first run of models had revealed a number of variables which were multicollinear. Again, these tended to be socialisation variables (“soczn” and “conform”), cross-product variables using socialisation (“soczn\*orgval”) and variables involving the emergent organisational values/goals factor (“orgvalem”, “peer\*orgval”, “comt\*orgval”). The models were then re-estimated including each of these variables separately to establish if any of them were significant. This proved not to be the case except for “soczn\*orgval” which was significant at 10% on the pyjpers dependent variable. The final run of models, therefore, only includes “soczn\*orgval”. The models were also re-estimated using the emergent value factors (work, general and pleasure) in the place of valsoc and dvri. Generally,  $R^2$  was slightly lower for these models except in the case of the audit sign-off case, in which  $R^2$  was slightly improved with valwork replacing valsoc. In the FP case models, however, the value factors were not significant. There were no other differences in terms of significant coefficients or direction of influence. The models reported are the ones using valsoc and dvri, not the ones using the emergent value factors. There were four outliers in the FP case and none in the audit sign-off case. As described above, the FP models were re-estimated excluding the outliers. There were no major differences in terms of significant regressors, although significance levels tended to strengthen and  $R^2$  improved, particularly for model 11 (22% to 40%).

The models reported in Table 7.9 are those from which the outliers have been excluded.  $R^2$  was highest, at 40%, for model 11, with the most significant explanatory variables. In the case of model 10, only two regressors are significant, personal and organisational values, explaining 22% of the variance. This is an acceptable result in comparison with other similar studies discussed above. The feature common to the year 3 significant models is the influence of the strength of conviction value variable. The negative coefficients for this variable indicate that higher strength of conviction corresponds to judgements of unacceptability of the scenarios. Intuitively, this makes sense. A further highly significant variable appearing in pyjpers and pyjsum is the variable capturing social responsibility-type (SR) organisational goals. Perceptions of SR goals as relatively unimportant to the firm correspond to judgements of unacceptability of the scenarios. Thus if trainees perceived their firms to have little or no

social conscience, they were more likely to consider the auditors actions to protect the client unethical, whereas if they believed their firms to be socially responsible, then perhaps they were more likely to interpret the behaviour less harshly - this appears to reflect differing opinions of the social role of the professional audit firm.

Further significant regressors on the FP summary dependent variable, but not on the personal dimension, are role conflict, the dummy variable for firm's support for ethics (in-house ethics training = 1, exam and reference material coverage of ethics only, no in-house ethics training = 0), and expert power. Each of these three is significant at 1% and the direction of influence is positive. First, experiencing low role conflict were more likely to deem the scenario as unacceptable/unethical. In the case of model 6 it was argued that the lack of perception or awareness of a conflict between role- and internally-defined behaviour allowed individuals to bring their own standards to the case, and so to judge it personally unacceptable, whereas those who perceived the presence of role conflict might accept that two different standards had to be applied. The same reasoning applies to model 11 in that the perception of role conflict is associated with overall acceptability of the scenario behaviour. Second, subjects receiving in-house ethics training were more likely to deem the scenario as unacceptable/unethical. This is perhaps because in-house formal training helped them to perceive the ethical complexity in the situation, rather than relying purely on a rules-based focus on client confidentiality which would typically be emphasised in examination coverage of ethics. Third, subjects rating expert power as high were more likely to judge the scenario as unacceptable/unethical - the reason for this is unclear. None of these variables were significant in model 10 (FP - personal), the only other significant variable besides strength of personal values being "soczn\*orgval" at 10%. It is possible that firm support, role conflict and expert power are not significant in the FP-personal dimension because they are mainly professional considerations which, as has already been suggested, dominate the FP-sum dimension. The implications of this reasoning include the idea that in-house ethics training does not influence personal aspects of ethical judgement.

For the audit sign-off case, significant variables besides "valsoc" were materialism and role ambiguity. First, individuals with higher levels of materialism were more likely to approve of premature audit sign-off. Because in the scenario, the premature sign-off is associated with the need to study for professional exams, the passing of which is strongly linked to increased salary for trainees, it makes sense that highly materialistic individuals would be

**Table 7.9: Results of linear regressions on aspects of ethical judgement in year 3**

Regressand Regressors	Audit sign-off	Flammable pyjamas			
	Sum Model no. 9	Personal Model no.10	Professional	Sum Model no. 11	Conflict
val s.o.c. –	-0.232** (-2.077)	-0.243** (-2.182)	<i>Insignificant model</i>	-0.207** (-2.108)	<i>Insignificant model</i>
dvri (+)	0.094 (0.821)	0.046 (0.398)		0.193* (1.852)	
per mat –	0.231** (1.980)	0.142 (1.159)		-0.047 (-0.438)	
sex (+)	0.029 (0.277)	0.078 (0.738)		0.067 (0.725)	
firm sup (+)	0.146 (1.455)	0.318 (1.278)		0.264*** (2.879)	
f ethics –	-0.098 (-0.935)	0.144 (1.333)		0.148 (1.491)	
e tr days (+)	0.026 (0.251)	0.070 (0.664)		-0.142 (-1.537)	
orgval csr (+)	0.063 (0.580)	-0.352*** (-3.223)		-0.280*** (-2.926)	
soczn*orgval ?	0.140 (1.334)	0.181* (1.716)		0.069 (0.728)	
pwr crc –	-0.002 (-0.018)	-0.065 (-0.592)		0.084 (0.848)	
pwr xpt ?				0.305*** (2.910)	
conform ?	a	a		a	
raem –	-0.289*** (-2.591)	0.170 (1.481)		0.186* (1.758)	
rcem (+)	-0.070 (-0.625)	0.130 (1.109)		0.354*** (3.422)	
t <sup>constant</sup>	6.427***	3.378***		1.764*	
Adj R <sup>2</sup>	0.19	0.22		0.40	
F =	2.703	2.949		5.244	
Signif. of F	0.004	0.002		0.000	
n =	88	82		82	

\* significant at 10%      \*\* significant at 5%      \*\*\* = significant at 1%

Additionally, coefficients significant at 5% or less are shaded.

“a” indicates the variable was removed, having been found insignificant, due to high multicollinearity (VIF > 2).

Signs in parentheses in the first column indicate hypothesised direction of influence

Figures in parentheses are t-statistics. Figures not in parentheses are standardised coefficient betas.

less likely to judge the sign-off harshly. Second, high role ambiguity is associated with higher acceptability of the premature audit sign-off. This direction of influence is as expected. Thus where role ambiguity is high, and trainees are not clear about what constitutes appropriate behaviour, they were more likely to condone the premature sign-off. It is striking that the two models for which role ambiguity is significant, models 7 and 9, in years 2 and 3 respectively, have yielded opposing results on role ambiguity. It was anticipated at the outset that high ambiguity would yield more unethical decision making as in the case of model 9, not less, as in the case of model 7. It is difficult to reach any firm conclusions, therefore, on the subject of role ambiguity and ethical judgement, except to say that it appears to lead to variability in ethical judgement.

#### **7.3.1.4 Ethical judgement hypothesis testing results**

Table 7.10 summarises which of the hypotheses were supported by analysis of this study's data. This section provides a short discussion to accompany the table. Table 7.10 also covers the values hypotheses discussed in section 7.3.2.

*H<sup>C</sup>1 Individuals with strongly held personal values will make judgements of a more ethical nature in situations which involve ethical issues than individuals with weakly held personal values.*

This hypothesis was strongly supported in every estimated regression model except model 4. It was tested in the first and last years. Overall strength of conviction about personal values was highly significant in these models. The differential values ranking index (dvri = pleasure - equality) was also significant but only in the first year and two dimensions of the flammable pyjamas case. Therefore, while the strength with which trainees held their values remained a significant factor influencing ethical judgement across different scenarios in different time periods, the relative weighting of two particular values, pleasure and equality, was only influential at the start of training. It is not clear whether this is because of problems with the validity of the dvri measure or whether it reflects a change in the way these particular values affect ethical judgement over time. The general finding that personal values are important in ethical judgement also emerged in discussions with interviewees. One trainee working in the insolvency department described the role of personal values in the following way:

“There is a great reliance on our own set of values. There's no formal policy about selling assets from an insolvency client. It's more a case that they feel they don't have

to say it. I just think that if you're bright enough to get the job in the first place, you're bright enough to work out that you shouldn't be doing it [buying the assets yourself], even though the opportunities are there. There is little actual control. We've actually had someone involved in trying to do it, trying to buy some assets on the cheap and selling them on. He got the boot."

In each model, the direction of significance of strength of personal values (val s.o.c.) was the same (negative). This means that for every dimension of the FP case and for the tax referral and audit sign-off cases, individuals with strongly held values were more likely to judge the ethically questionable actions of giving gifts and entertaining to obtain business, not externally revealing clients' unethical practice, and signing-off an audit test prematurely as unacceptable. In concluding that the regression models are supportive of the hypothesis, it may therefore appear that we have already decided to treat the "more ethical" position as being represented by the unacceptability of these questionable actions. In fact, the situation is rather more complex. In section 5.2, the methodological importance of considering the normative implications of the research findings were underlined. It was also argued, however, that *a priori* normative assessment of the study's scenarios would be inconclusive and that a second approach was required which would attempt to identify the ethical dimensions in the data at the same time as investigating the contextual and other factors influencing ethical decision making (Robertson, 1993). Exploratory data analysis reported in chapter 6 has already revealed certain dimensions in the scenario responses which have been used as a basis for the multivariate regression models estimated in this chapter. A further step in the application of the theoretical integration perspective is to note that despite there being different and apparently opposing dimensions to ethical judgement, particularly personal versus professional dimensions of the FP case, strength of personal values supports ethical decision making in one direction regardless of dimensionality. Therefore, rather than having made an *a priori* normative judgement as to what represents the more or less ethical position, we are observing that despite the existence of different dimensions, representing different considerations in ethical judgement, the association of strong personal values with judgements of unacceptability indicates that this end of the scale represents, in a normative sense, the "more ethical" position. For the sake of verbal simplicity in the remaining discussion of the study's results, the unacceptability end of the scale will be described simply as "more ethical".

Table 7.10: Summary of cross-sectional testing of ethical judgement hypotheses

Hypothesis	Year 1					Year 2					Year 3		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11		
H <sup>C</sup> 1	✓	✓	✓	✗	Shaded	Shaded	Shaded	Shaded	✓	✓	✓		
H <sup>C</sup> 2	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗		
H <sup>C</sup> 3a	✗	✗	✗	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded		
H <sup>C</sup> 3b	Shaded	Shaded	Shaded	✓	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded		
H <sup>C</sup> 4	✗	✗	✗	✗	✗	✗	?	✓	✗	✗	✓		
H <sup>C</sup> 5	Shaded	Shaded	Shaded	Shaded	✗	?	✗	✗	✗	✗	✗		
H <sup>C</sup> 7	Shaded	Shaded	Shaded	✗	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded	Shaded		
H <sup>C</sup> 8	Shaded	Shaded	Shaded	Shaded	✗	✗	✗	✗	✗	?	✗		
H <sup>C</sup> 9	✗	✓	✗	✗	✗	✗	✗	?	✗	✗	✓		
H <sup>C</sup> 10	Shaded	Shaded	Shaded	Shaded	✗	✗	✗	✗	✗	✗	✗		
H <sup>C</sup> 11	✓	✓	✗	✓	✗	?	?	✓	✗	✗	✓		
H <sup>C</sup> 12	✗	✗	✗	✗	✗	✗	✗	?	✗	✗	✗		
H <sup>C</sup> 13	✓	✓	?	✗	✓	✓	✓	✓	✓	✗	✓		

✓ Regression coefficient significant at 5% or less offering support for hypothesis.

✗ Regression coefficient not significant offering no support for hypothesis.

? Regression coefficient significant only at 10% offering weak support for hypothesis.

Shading indicates that the hypothesis could not be tested.



*H<sup>C</sup>2 Females will exhibit higher levels of ethical judgement than males.*

Gender is significant in only one of the regression models, model 1 in which females are significantly more likely (at 1%) to disagree with the ethically questionable practices. On balance, therefore, it can be concluded that H<sup>C</sup>2 is not supported and that differences in the ethical judgement of male and female trainee accountants are insignificant. As was discussed in the previous section, the debate about the effects of gender is ongoing. A part of this debate concerns whether there are particular situations or types of scenarios which trigger different styles of ethical judgement in men and women (e.g. Barnett and Karson, 1989; Stanga and Turpen, 1991). The current study's findings that ethical judgement in only one scenario was influenced by gender may reflect such this notion of situation specificity.

*H<sup>C</sup>3a Subjects with internal locus of control are likely to make ethical judgements more frequently than those with external locus of control*

*H<sup>C</sup>3b Subjects with internal locus of control are likely to experience more conflict between personal and organisational values than subjects with external locus of control*

These hypotheses could only be tested in one of the three cross-sections, in the first year. H<sup>C</sup>3a was not supported as locus of control was not found to be significant in either the tax referral or the FP case. Model 4, however, offers support for hypothesis H<sup>C</sup>3b, that internals experience higher levels of ethical conflict on account of their taking responsibility in the determination of right and wrong. The ambiguous nature of these results which, as already noted, is not unprecedented, reflects the unresolved issue surrounding the ethical effects of locus of control. Further empirical research is needed to clarify the position.

*H<sup>C</sup>4 Ethical judgement is positively related to firms' support of ethics.*

This hypothesis was operationalised using the variables "f ethics" which measured the seriousness with which firms were perceived to deal with ethical lapses, and "firm sup" (only available in years 2 and 3) which measured the extent of in-house training in matters related to professional ethics. "F ethics" was only significant (at 5% or less) in one of the second year models, the FP-conflict model (model 8 at 1%). The experience of conflict in year 2 was, therefore, heightened by the perception that the firm was supportive of high ethical standards. This result did not appear in the first year conflict model number 4. "Firm sup" was also significant in model 8, but only at 10% and in the "wrong" direction. It was only significant at 5% or less in the FP-sum model, model 11, in the anticipated direction in the third year. These results represent very weak support for the hypothesis and it can be

concluded that firms' support of ethics is not a central influence on the ethical judgement of trainee accountants.

*H<sup>C</sup>5 Firms which have strong organisational values and goals are likely to generate judgements of a more ethical nature than firms with weaker organisational values.*

This hypothesis was tested in the second and third data collection periods. The variable used to operationalise it was "orgval csr" representing service or social responsibility goals. Initially, it was intended to use both of the organisational goals factors, "orgval csr" and "orgval em", representing values associated with business success, to test this hypothesis. "Orgval em", however, was not included in the final regression models since it proved insignificant and because its inclusion tended to cause problems of multicollinearity both with "orgval csr" and with other variables. "Orgval csr" was only significant (at 5% or less) in the third year and in the FP case models (10 and 11). In these models, perception of firms upholding social responsibility-type values was associated with subjects judging the scenario action to protect the client as acceptable. In relation to hypothesis testing, the obvious question concerns whether this constitutes support for the above hypothesis. Under the terms of the previous discussion (under H<sup>C</sup>1) about the definition of more or less ethical judgement, it must be concluded that the hypothesis is not supported for three reasons. First, "orgval em" proved insignificant in all the models. Second, where "orgval csr" is significant, in two out of seven possible models, the direction of influence is in the opposite direction to that hypothesised. Third, "orgval csr" is insignificant in five out of seven models. The reason for the lack of significance of organisational values in ethical judgement was initially unclear. However, testing of the values hypotheses, the results of which are presented later in this chapter, suggests that organisational values have an indirect influence on ethical judgement through their effect on personal values.

*H<sup>C</sup>7 Individuals with strongly held personal values experience greater conflict between organisational and personal considerations in ethical judgement.*

This hypothesis could only be tested in the conflict dimension of the FP case and in years 1 and 3. It is not supported in either year as the strength of conviction variable was insignificant in the first year and the whole conflict model was insignificant in the third year. So whilst strength of conviction does influence ethical judgement itself (H<sup>C</sup>1), it does not appear to affect the perception of conflict between personal and professional aspects of ethical judgement. Rather, conflict seems to be associated more with situational variables.

*H<sup>C</sup>8 The influence of organisational values over ethical judgement is greater for graduate accountants who are subject to intense socialisation processes than for those who are not.*

The cross-product of organisational socialisation and the emergent organisational values was used to test this hypothesis. No support was found for it.

*H<sup>C</sup>9 Ethical judgement is positively related to the extent of non-exam-related ethics training.*

As described in section 5.4.3.12, this hypothesis was operationalised using the variable “hrs ethics” in the first year and “firm sup” which measured the extent of in-house training in matters related to professional ethics in years 2 and 3. “Hrs ethics” was highly significant in year one in one model only - FP-personal. In all other first year models, it was insignificant. “Firm sup” was significant in the FP-conflict model in year 2, but only at 10%, and in the FP-sum model in the third year. These results do not constitute support for the hypothesis. Rather, they indicate that training may have some impact on ethical judgement but that its effect is patchy and far from consistent across scenarios or time periods. While the lack of a statistical relationship could be interpreted as evidence of a genuine dilemma in the FP case, the lack of significance of the training variables across the other two scenarios used in the study tends to indicate that training has a limited or imperceptible impact on ethical judgement.

*H<sup>C</sup>10 The adoption of organisational values in ethical judgement is positively related to commitment to that organisation.*

The cross-product of organisational commitment and the emergent organisational values (“comt\*orgval”) was used to test this hypothesis. No support was found for it.

*H<sup>C</sup>11 Professional accountants' ethical judgement will be significantly influenced by reinforcement contingencies, particularly negative ones.*

The six dimensions of power were used to test this hypothesis. In three of the four first year regression models, one or more aspects of power were influential on ethical judgement. In the second year, coercive power remained a significant influence on the perception of conflict in the FP case. No other power variable was significant at 5% or less in the second year. In the third year, expert power was significant FP-sum model. Thus it could be said

that no negative reinforcement contingencies were significant in the final year. The data indicates diminishing support for the above hypothesis - while new trainees are influenced by various aspects of their firms' power, by the end of the training period, they do not appear to be influenced by any negative reinforcement contingencies.

*H<sup>C</sup>12 The opinions of peers will be significant in ethical judgement, especially where other behavioural cues such as organisational values are weak*

This hypothesis was operationalised using the single item check item in year one and the conformity motivation scale in years 2 and 3. Further, a cross-product variable "peer\*orgval" was calculated<sup>1</sup> and included in the regression models to test the organisational values part of the hypothesis. "Peer\*orgval", however, created multicollinearity problems with various other regressors. These were systematically removed from the regression models to establish whether "peer\*orgval" was significant in its own right. This proved not to be the case in any of the models and the cross-product is omitted from the final models reported in Tables 7.7 to 7.9. The check item and the conformity motivation mean variable were not found to be significant at 5% or less either. The hypothesis is therefore not supported.

*H<sup>C</sup>13 Individuals' ethical judgement will be influenced negatively by external pressures of time, scarce resources, and competition.*

As discussed in section 5.4.3.10, this hypothesis was investigated using scales to measure role ambiguity, role conflict and job characteristics. Various of these measures were found to be significant in the regression models, as has been discussed in section 7.3.1.3. Various explanations for the individual significant regressors have already been discussed and will not be repeated here. To summarise this information, however, Table 7.11 is provided. It shows which of the variables were significant and in which direction, by model and time period. The aim of producing such a table was to attempt to identify patterns and hence to discuss whether the data support the hypothesis. The table reveals few such patterns. As has been discussed previously, the direction of influence of role ambiguity is unclear. Role conflict, on the other hand, has a consistently positive influence in the 4 models in which it was significant - in each case, high role conflict was associated with the "unethical" choice or, put another way for the FP case, with the professionally ethical choice. The only job

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<sup>1</sup> The cross-product was derived by multiplying the conformity motivation variable with the organisational goal emergent factor.

characteristic which was significant in more than one time period was job variety. In models 1, 2, and 6, high levels of variety was associated with acceptability of the scenario behaviour. The reasons for this remain unclear. Beyond these, although there are a number of significant regressors, few patterns are discernible. It does, however, seem fairly safe to say that pressures and characteristics of the job can affect ethical judgement, and that the above hypothesis is generally supported. More empirical research is obviously needed to investigate to precise nature and direction of these relationships.

**Table 7.11: Summary of direction of influence and significance levels for role ambiguity, conflict and job characteristics regressors by regression model and year**

Variable	Year 1				Year 2				Year 3		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
Raem							+	-	-		+
							5%	1%	1%		10%
Rcem		+	+			+					+
		1%	10%			5%					1%
Jcivar	+	+				+		+			
	1%	5%				1%		1%			
Jciaut					-						
					5%						
Jcifbk						+		+			
						5%		5%			
Jcioth							-				
							5%				

+ indicates a positive regression coefficient  
 - indicates a negative regression coefficient

### 7.3.2 Values hypotheses

This section discusses the testing of the following hypotheses:

*H<sup>C</sup>6a* An individual's personal strength of conviction about values is positively related to perceived strength of conviction on the part of the organisation about its values and goals.

*H<sup>C</sup>6b Self-orientated values are strengthened by perceptions of strong organisational values relating to commercial success.*

*H<sup>C</sup>6c Other-orientated values will be strengthened by strongly held service-type organisational values.*

*H<sup>C</sup>3c Locus of control interacts with personal values to affect ethical behaviour in the following manner: Individuals with internal locus of control orientation are more likely to have high personal values (and therefore higher levels of ethical judgement - H<sup>C</sup>1) than external individuals.*

### **7.3.2.1 Methods**

These hypotheses are dealt with in a separate section because the dependent variables are not dimensions of ethical judgement, as in the previous section. The purpose of the section is to present results of bivariate correlations and multiple regression analysis which were used to investigate the influence of organisational values on personal values. The bivariate correlation coefficients are discussed first, followed by the results of a series of multiple regression models which were estimated to test the hypotheses directly. As discussed in chapters 2 and 4, the literature suggests that contextual factors in the workplace can influence ethical judgement and, further, that they can also have an impact on personal values held by individuals. The literature has also suggested that there is a link between CMD and sex and locus of control. Since hypothesis 2 concerning gender, and 3a concerning the effect of locus of control, directly on ethical judgement were not supported by the data, these two variables were included in the current model of influences on personal values. If they proved significant, it would imply that they have an indirect on ethical judgement through personal values. A model was estimated which incorporated the constructs dealt with by hypotheses 6a, b, c, and 3c. These hypotheses concern individual and situational factors discussed in chapters 2 and 4 which are thought to be influential in shaping personal values. The individual factors are sex and locus of control, the situational factors are organisational values and job-related characteristics operationalised using role conflict, role ambiguity and job characteristics (the operationalisation of job-related characteristics/pressures is discussed in section 5.4.3.10). The model to be estimated therefore takes the following form:

Personal values<sub>t</sub> = f (Organisational values, Job-related characteristics and pressures, Sex, Locus of control)<sub>t</sub>.

All the models estimated were in a single time period, since year 3 is the only year that personal and organisational values data was collected together. A similar approach to variable selection was taken for these regression models as in section 7.3.1 i.e. mainly confirmatory specification with some elements of backward elimination in order to increase parsimony and maximise degrees of freedom. The latter was particularly important due to the relatively small number of cases available for analysis in year 3. In an initial series of models, all the variables were included i.e. different formulations of organisational values and personal values, role ambiguity and role conflict, job characteristics, sex and locus of control. Strictly speaking, locus of control data was not available in year 3 as it was only included in the questionnaire in the first year. Locus of control is, however, considered to be a relatively stable personality trait. Data collected in the first year was therefore included in the regression models as a proxy for year three locus of control data. This had the unfortunate result of reducing  $n$  even further (there were 75 subjects who responded in both years 1 and 3). To check that the inclusion of locus of control in this way was not causing the results to be in any way misleading, the final regression models were rerun excluding the variable. Although there was a decrease in  $R^2$  in each case, as would be expected when a significant explanatory variable is omitted, there were no changes in significant regressors or in the direction of influence.

### **7.3.2.2 Values hypothesis testing results**

Table 7.12 gives the bivariate correlation coefficients for the personal and organisational values variables. This discussion will highlight only those correlations which are significant at the 1% level. It can be seen from the table that strength of conviction about personal values is correlated with all the organisational values factors whereas the work-related value factor (self-respect, social recognition and wisdom) is only correlated at the 1% level with the social responsibility/service organisational value factor. The negative correlation coefficients reflect the fact that personal and organisational values are coded in opposite directions. Of all the personal value factors, the general factor (family security and inner harmony) has the weakest bivariate relationship to the organisational values. Intuitively, this makes sense. Finally, the personal value of pleasure is strongly correlated with the emergent organisational goal factor (goals relating to firms' commercial success) and with the

productivity and leadership factors of which the emergent factor is a composite. In summary, therefore, bivariate correlation results suggest that particular aspects of personal values are associated with particular types of organisational goals. Next, these relationships are explored further using multivariate analysis.

*Table 7.12: Bivariate correlations of organisational and personal values in year 3*

	Val soc	Val work	Val gen	Val hed	Dvri	Orgval em	Orgval csr	Orgval prod	Orgval lead
Val soc	1.00								
Val work	0.82**	1.00							
Val gen	0.70**	0.38**	1.00						
Val hed	0.28**	0.13	0.06	1.00					
Dvri	-0.29**	-0.13	-0.19*	0.52**	1.00				
Orgval em	-0.28**	-0.14	-0.22*	-0.37**	-0.15	1.00			
Orgval csr	-0.21*	-0.23**	-0.08	0.02	0.11	0.28**	1.00		
Orgval prod	-0.27**	-0.12	-0.21*	-0.40**	-0.18*	0.95**	0.19*	1.00	
Orgval lead	-0.25**	-0.17*	-0.18*	-0.25**	-0.11	0.87**	0.45**	0.69**	1.00

\* Two-tailed significance at 5%

\*\* Two-tailed significance at 1%

n = 135

Table 7.13 gives details of five multiple regression models, one for each of the personal values factors. The general procedure for variable selection has already been discussed in section 7.3.2.1. Outliers were dealt with in the same manner as in previous regression analysis. The models in the table are those with outliers excluded (two or three cases for each model). The models generated  $R^2$ s between 14% and 31%, with four of the five being 20% or above. Given the many other influences on personal values besides those included in the models, such as family, social and educational background plus personality and life experiences, this result is considered highly satisfactory. There are a number of interesting points to make about the models. The first concerns the way organisational goals influence personal values. The personal values factor which we have called “work-related” up to this point is influenced by CSR organisational goals. An alternative interpretation for the values



**Table 7.13: Results of linear regressions on aspects of personal values in year 3**

	Val work	Val gen	Val hed	Val soc	Dvri
Val csr	-0.304** (-2.604)	0.098 (0.839)	0.147 (1.359)	-0.057 (-0.480)	-0.036 (-0.288)
Val em	-0.055 (-0.478)	-0.257** (-2.226)	-0.539*** (-4.956)	-0.239** (-2.030)	-0.311** (-2.501)
Ra em	-0.084 (-0.714)	0.260** (2.222)	-0.053 (-0.490)	0.100 (0.856)	-0.169 (-1.365)
Jci oth em	0.254** (2.341)	-0.040 (-0.363)	0.239** (2.350)	0.202* (1.867)	0.118 (1.026)
L.o.c.	0.241** (2.193)	0.285*** (2.568)	-0.382*** (-3.704)	0.132 (1.195)	-0.296** (-2.529)
Sex	-0.164 (-1.436)	-0.175 (-1.528)	0.073 (0.690)	-0.263** (-2.296)	0.342*** (2.810)
t <sup>constant</sup>	3.682***	2.972***	5.964***	5.631***	0.823
Adj R <sup>2</sup>	0.20	0.23	0.31	0.22	0.14
F	4.054	4.541	6.422	4.388	2.869
Signif. of F	0.002	0.001	0.000	0.001	0.015
n =	73	70	71	71	70

\* significant at 10%

\*\* significant at 5%

\*\*\* = significant at 1%

Additionally, coefficients significant at 5% or less are shaded.

Figures in parentheses are t-statistics. Figures not in parentheses are standardised coefficient betas.

of self-respect, social recognition and wisdom is that they could all be said to be related to the notion of self-actualisation. Thus self-actualisation personal values are influenced by social responsibility-type organisational goals, whereas the other value factors (family security and inner harmony, pleasure, strength of conviction and the excess of pleasure over equality) are all positively associated with the main group of commercial organisational values. These results suggest that there is a small group of personal values which are influenced by service or other-orientated values but that, for the most part, personal values are informed and strengthened by strongly-held "mainstream" organisational values. In terms of the research hypotheses, the results support H<sup>C</sup>6a that personal strength of conviction about values is positively related to strength of organisational values, and H<sup>C</sup>6b, that self-orientated values are supported by strong commercial organisational values, but not H<sup>C</sup>6c concerning other-orientated personal values. Taking the "dvri" as the best available model concerning other-orientated values, the results show first that service-type organisational values are not significant i.e. H<sup>C</sup>6c is not supported, and second, that there is actually a relationship between dvri and *commercial values*. The direction of the relationship

is as follows: Organisational goals are more influential where equality is rated above pleasure and conversely, the more pleasure is rated above equality, the less influential organisational goals are. Thus other-orientated personal values are not influenced by other-orientated organisational values, rather they are influenced by commercial organisational values.

It can generally be concluded from the above discussion that the data support the notion that organisational values and personal values are interrelated. This notion was also expressed by interviewees, one of whom actually anticipated the change in his personal values at the outset of training:

“It isn’t just a job, it is a way of life and, you know, it is something you have to accept, something which I have accepted. It might just mean minor adjustments around the margins and you don't notice after a while - but you probably end up being a very different person from how you started out, but that's life, isn't it?”

Various other situational variables were included in the regression models. Role ambiguity proved to be significant only in the val gen model. High perceived role ambiguity was associated with low scores for the value i.e. family security and inner harmony were rated as relatively unimportant. Arguably, living and coping with role ambiguity might necessitate the devaluation in importance of inner harmony. The “dealing with others” job characteristic was significant (at 5% or less) in two of the models - work and pleasure. Interaction with others in the workplace tended to increase the perceived importance of these two personal values constructs. This accords with Trevino’s (1986) notion of role-taking. Trevino proposed that role-taking, defined as taking account of the perspectives of others, was one of a small number of job characteristics which could affect moral cognitions. It is reasonable to assume that role-taking is a central part of dealing with others which, if an important part of the job, can lead to changed personal values. This is what the regression results suggest.

Other noteworthy points from the regression results include the influence of locus of control on personal values. In four out of five models, locus of control was a significant explanatory variable. The finding supports hypothesis H<sup>C</sup>3c concerning the contention in the literature that locus of control interacts with cognition in the determination of ethical behaviour (Jones, 1991; Trevino, 1986). A positive regression coefficient indicates that internal locus of control orientation is associated with strong personal values. This is the direction one would expect from the literature. This is the case with work/self-actualisation values and the family

security/inner harmony factor. With the pleasure factor and with the dvri, the negative regression coefficient indicates that “internals” will have lower values i.e. they will rate the pleasure value lower and they are less likely to rate pleasure above equality. This could be interpreted as bringing into question the widely accepted notion that internals have higher values or are more ethical than externals. It seems, however, that a more reasonable explanation is that the pleasure value could be conceptualised almost as an “anti-value” or a negative value. In this case, the finding could be seen as consistent with assumptions in the literature about locus of control and ethical orientation. Further, recalling the notion of values forming systems from chapter 2 (Rokeach and Ball Rokeach, 1989; Musser and Orke, 1992), the significance of locus of control in the dvri regression model suggests that locus of control orientation could influence the relative weighting of values within systems. The reason for the lack of significance of locus of control in the strength of conviction model remains unclear. It is, however, noted that, although not significant, the regression coefficient is in the direction anticipated from the hypotheses.

The regression models in section 7.3.1 did not find sex to be a significant predictor of ethical judgement. Similarly, none of the three values factors were influenced by sex. Interestingly, however, sex does prove to be a significant influence on strength of conviction and on dvri. The explanation for the lack of significance on the value factors is unclear. More important, however, is the observation that since strength of conviction was a significant influence on ethical judgement, it is likely that gender has had an *indirect* influence on ethical judgement through strength of conviction. Thus, although H<sup>C</sup>2, that females exhibit higher levels of ethical reasoning than males, was not supported, it can be concluded that females generally hold their personal values with a greater degree of conviction than males, and that this has a knock-on effect on ethical judgement.

#### **7.4 Conclusions of cross-sectional analysis**

This chapter has reported the results of analysis of the cross-sectional hypotheses developed in chapter 4 concerning influences on ethical judgement of graduate trainee accountants at various points during training. Cross-sectional analysis is normally confined to analysis of data in a single time period. The longitudinal nature of this study affords the opportunity not only to examine a number of single time periods but also to compare the cross-sections taken in different time periods. Much of the discussion in this chapter concerns such comparisons.

These comparisons cannot strictly be termed cross-sectional analysis since they are about change over time. The relative perspective provided by the comparisons, however, is an important means of interpreting the cross-sectional data - they therefore fall more naturally into this chapter rather than the next which is devoted to dynamic, process-type issues.

First, the chapter examined some descriptive statistics on the data including means, standard deviations, paired-samples t-tests and bivariate correlations. Notable findings from the t-tests included significant increases over the training period in role conflict and ambiguity and in the job characteristic concerned with dealing with other people, and significant decreases in firm commitment, perception of firms' ethical standards, and perception of aspects of firms' power over trainees. As has been discussed, ethical judgement was measured using three different ethical judgement scenarios. As discussed in chapter 6, responses to the tax referral and audit sign-off scenarios were unidimensional whereas responses to the flammable pyjamas case generated two dimensions. Descriptive statistics in this chapter show that, in each time period, the means for the two dimensions, personal and professional were significantly different to each other. It suggests that two sets of values were being used to assess the same scenario. This finding alone raises questions about the effect of professional accountancy training on the ability of trainees to resolve moral dilemmas. This issue will be further developed in chapter 8 when the change over time in the two dimensions is considered. The final element of exploratory descriptive analysis of the data conducted in this chapter involved the calculation of bivariate correlation coefficients. These were presented by ethical judgement scenario. Generally speaking, these produced relatively few significant correlations and even fewer discernible patterns between the same scenarios in different years or between different scenarios in the same year. The few significant correlations did, however, give an initial indication that there are relationships between ethical judgement and certain individual and situational variables. The remainder of the chapter explored these relationships using multivariate techniques with the aim of testing the hypotheses raised in chapter 4.

The chapter tested two groups of hypotheses. The main group consisted of hypotheses concerned with influences on ethical judgement and the second with the impact of organisational values and goals on individuals' personal values. Both groups were investigated with multiple regression analysis. A major finding of the ethical judgement regressions was that personal values generally, and strength of conviction specifically was a

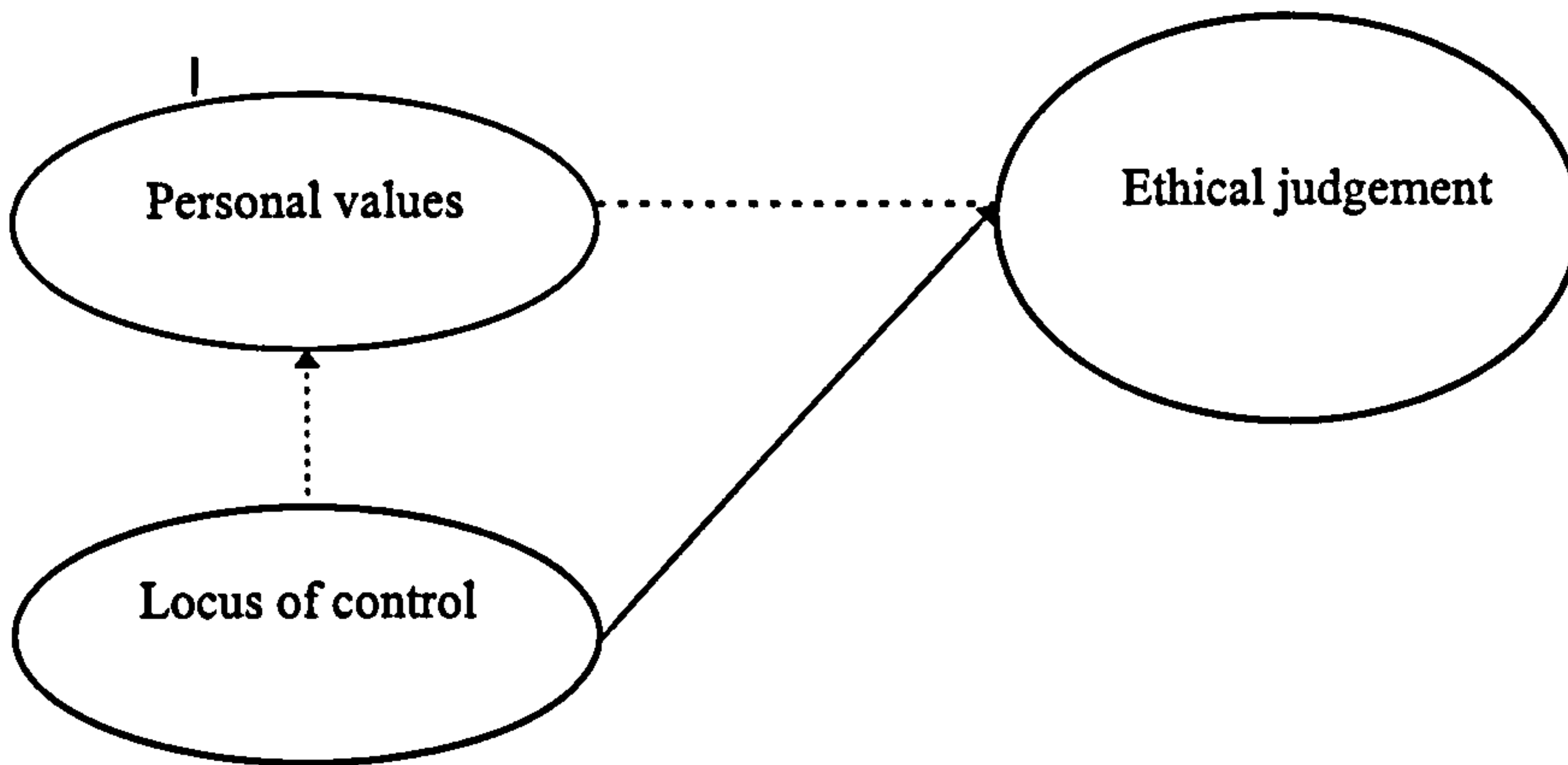
significant predictor of ethical judgement. The only exception to this was in the case of conflict between personal and professional aspects of the FP case. The finding is significant for a number of reasons. First, it lends general support to the emerging notion that values provide a valid basis for the conceptualisation of ethical judgement in models of ethical decision making. Second, it provides specific evidence that the strength of conviction measure of personal values is reasonable and helpful in ethical decision making research.

The chapter presented other significant findings from multivariate hypothesis testing, many of which illustrate the complexity of ethical decision making. First, much has been written in the literature about gender differences in ethical reasoning and cognition. Bivariate correlations coefficients between gender and ethical judgement were only significant (at 1%) in one first year scenario, the tax referral case. Consistent with this, the ethical judgement regressions only found gender to be a significant regressor in the same single scenario. A new and interesting light was shed on this issue, however, when gender was included in the personal values regressions and proved to be a highly significant predictor of strength of conviction and dvri. This finding suggests that gender does not have a direct and obvious effect on ethical judgement, rather that it impacts on ethical judgement indirectly through strength of personal values and relative weighting of values within sets. A second finding concerns locus of control. Similarly to gender, locus of control was not significant in the ethical judgement regression except in the case of conflict between personal and professional dimensions of the FP case. Locus of control was a significant influence, however, on four out of the five conceptualisations of personal values, again suggesting locus of control affects ethical judgement indirectly via personal values. For reasons which are unclear, the only case where locus of control does not influence personal values is in the strength of conviction case. Referring to the previous paragraph, it can be seen that the only scenario which is not influenced by personal values, the FP - conflict case, is also the only scenario to be influenced directly by locus of control. It appears that, in this case, the effect of locus of control has been strong enough to override the impact of personal values. This is depicted simply in Figure 7.2.

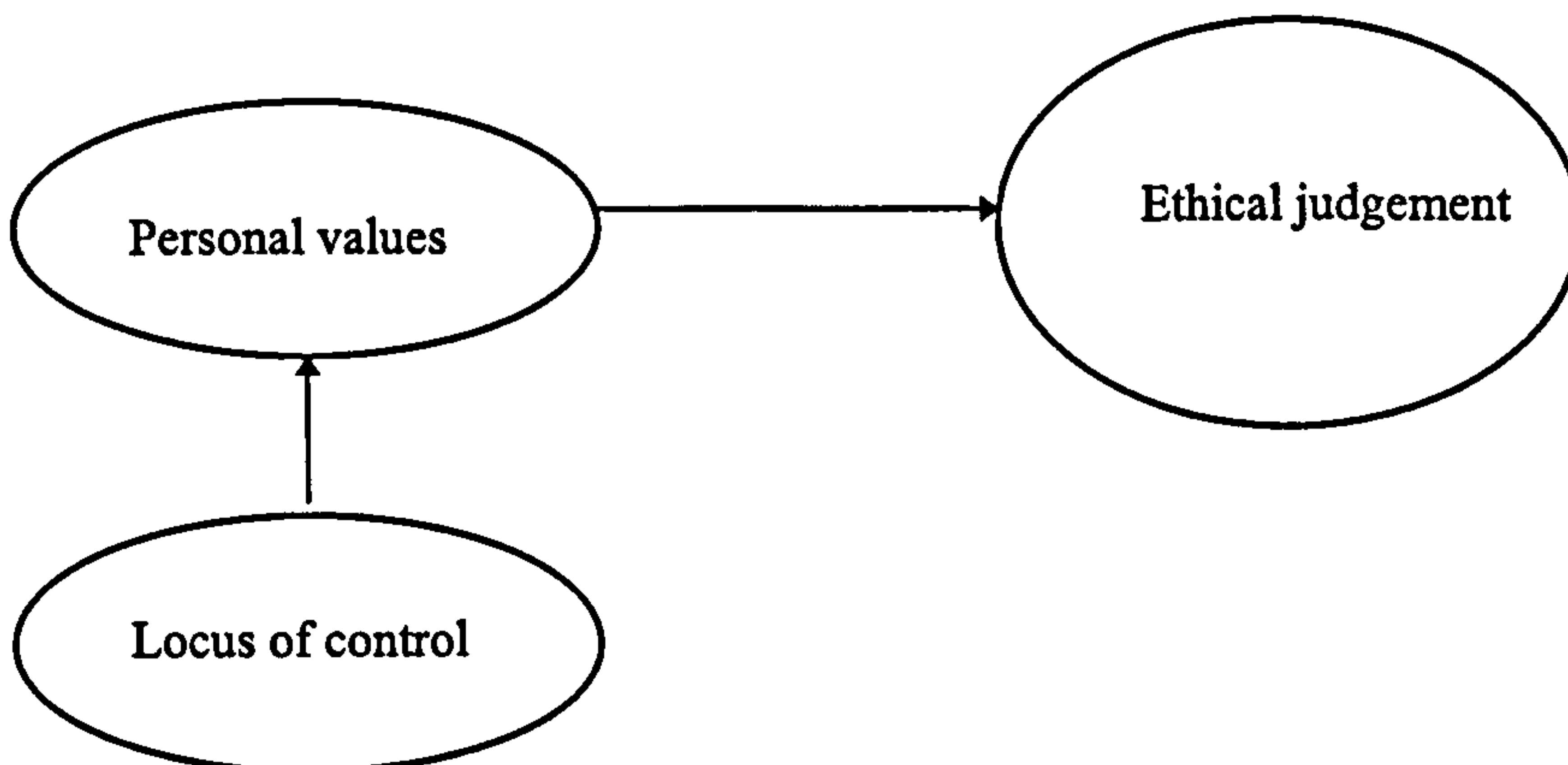
A number of hypotheses were not supported by the analysis in the chapter. Firms' support of ethics or holding of strong service-type goals were not important influences on trainees' ethical judgement. Additionally, hypotheses concerning the effects of firm commitment (on the adoption of organisational values in ethical judgement), ethics training, the opinion of

*Figure 7.2: The relationship between locus of control, personal values and ethical judgement found in this study*

**FP conflict model:**



**Other significant ethical judgement models:**



peers, and socialisation were not supported. The hypotheses about the impact of job characteristics and pressures on ethical judgement was supported in a very general sense, but the examination of the data suggested that more empirical research is needed to look in detail at these relationships.

The second group of hypotheses tested addressed the impact of organisational values and goals on personal values. Regression models were estimated using the different value factors generated in chapter 6 for the third year data as dependent variables. The results strongly

supported the notion that organisational values can help define and shape personal values. It is unfortunate that these models could only be estimated in the third year - a comparison of the influential variables from the first year to the last may have proved revealing. Nevertheless, some of the dynamic issues concerning changes to personal values in the organisational context will be dealt with in the next chapter.

In the next chapter, the analysis of the longitudinal hypotheses is undertaken and discussed. The aim is to examine whether and how ethical judgement and other related constructs adapt and change over the training period.

## **Chapter 8: Assessment of dynamic hypotheses**

### **8.1 Introduction**

This chapter is the second in this thesis which presents the results of empirical analysis conducted with the primary aim of testing the hypotheses generated in the model presented in chapter 4. Chapter 7 was concerned with testing the cross-sectional hypotheses, i.e. those which dealt with relationships existing in a single time period. In this chapter, the second tranche of results of the research will be presented. They are the product of testing hypotheses which address relationships over time or dynamic issues. As noted in chapter 4, two aspects of change are examined. The first involves looking at factors influencing ethical decision making and seeing if they change, becoming more or less important, over time. The second concerns time interdependence of ethical decision making. As in chapter 7, the analysis begins in the next section with the presentation of bivariate statistics for the ethical judgement scenarios, in this case across time periods. These consist of correlations and comparison of scenario response means. Then in section 8.3, the methods and results of dynamic hypothesis testing are discussed. Section 8.4 explores the question of the usefulness of collecting longitudinal data rather than cross-sectional data alone, within the context of the current study. This is done by re-estimating some of the cross-sectional models tested in chapter 7 using longitudinal data in order to explore the latter's potential for explaining more of the variance in ethical judgement. Finally, conclusions are drawn in section 8.5.

### **8.2 Bivariate statistics**

#### **8.2.1 Bivariate correlations across time**

In this section, bivariate correlation coefficients between the various different scenario responses calculated within and across years will be discussed. In Appendix 2 to chapter 7, within-year correlations were calculated between each scenario dimension and other key variables plus between different scenario dimensions. The focus of the discussion in Appendix 2 was, however, on the other variables. The focus of the analysis of correlations in this chapter is on the scenarios themselves. The within-year correlations between different scenario dimensions are therefore recalculated in this chapter along with correlations



comparing different scenario responses across time. They are presented in Table 8.1, and are not relegated to an appendix since they concern the main constructs i.e. the dependent variables, under study in the thesis. As in chapter 7, the purpose of the analysis of correlations is to begin to explore the relationships in the data. They provide useful descriptive information but will also be useful in conducting regression analysis later in this chapter. The remainder of this section offers a descriptive summary of the results. The order of the discussion is as follows: First, significant within-year correlations between the scenario dimensions are summarised. Second, significant correlations across different time periods are discussed. Unless otherwise stated, the discussion concerns correlations which are significant at  $p = 0.01$  or less. P-values of correlations significant at between 1% and 5% are indicated in parentheses.

The first clear observation about the within-year correlations is that neither the tax referral case nor the audit sign-off case are significantly correlated with any other scenario dimensions. This is to be expected as these cases yielded only a single dimension. Instead, the significant correlations arise between different dimensions of the multidimensional FP case. In each of the three years, there is a strong positive correlation between the FP case mean (“pyj sum”) and the personal and professional dimensions (“pyj pers” and “pyj prof”) which arises because the latter two dimensions, taken together, cover the domain of the mean dimension. Correlations for the conflict dimension of the FP case (“pyj conf” = “pyj pers” minus “pyj prof”) are more interesting. In every year, there is a strong positive correlation with the personal dimension and a strong negative correlation with the professional dimension. This suggests a high degree of perceived conflict between personal and professional considerations in ethical judgement is associated with high personal *un*acceptability but high professional acceptability of the FP case. Again, this is not unexpected due to the way the scenario dimensions have been derived. Finally on the subject of within-year correlations, it is noted that there is a significant positive correlation between the personal and professional dimensions in each year. Although still significant at 1%, these correlations are, however, significantly lower than the ones already discussed in this paragraph at 0.29 ( $p=0.000$ ), 0.15 ( $p=0.032$ ) and 0.26 ( $p=0.003$ ) in years 1, 2 and 3 respectively. This finding suggests that although the two dimensions are capturing different aspects of ethical judgement, they are nevertheless related and tend to “pull” in the same direction.

**Table 8.1: Bivariate correlations of scenarios calculated across time periods**

Year	Year 1						Year 2						Year 3								
	Tax sum	Pyj pers	Pyj prof	Pyj sum	Pyj conflict	Audit sum	Pyj pers	Pyj prof	Pyj sum	Pyj conflict	Audit sum	Pyj pers	Pyj prof	Pyj sum	Pyj conflict	Audit sum	Pyj pers	Pyj prof	Pyj sum	Pyj conflict	
<b>Year 1</b>																					
Tax sum	1.00	n=381	382	382	381	110	110	110	110	110	74	74	74	74	74	74	74	74	74	74	
Pyj personal	0.07	1.00	n=388	388	388	110	110	110	110	110	74	74	74	74	74	74	74	74	74	74	
Pyj profnal	0.05	0.29	1.00	n=390	388	110	110	110	110	110	74	74	74	74	74	74	74	74	74	74	
Pyj sum	0.08	0.75	0.84	1.00	n=388	110	110	110	110	110	74	74	74	74	74	74	74	74	74	74	
Pyj conflict	0.00	0.48	-0.70	-0.21	1.00	n=110	110	110	110	110	74	74	74	74	74	74	74	74	74	74	
<b>Year 2</b>																					
Audit sum	0.08	-0.01	-0.06	-0.03	0.04	1.00	n=197	197	197	197	52	51	51	51	51	52	51	51	51	51	
Pyj personal	0.08	0.28	-0.01	0.16	0.22	-0.05	1.00	n=197	197	197	52	51	51	51	51	52	51	51	51	51	
Pyj profnal	0.08	0.10	0.44	0.38	-0.34	-0.07	0.15	1.00	197	197	52	51	51	51	51	52	51	51	51	51	
Pyj sum	0.11	0.25	0.30	0.37	-0.09	-0.10	0.70	0.79	n=197	n=197	52	51	51	51	51	52	51	51	51	51	
Pyj conflict	0.01	0.14	-0.36	-0.18	0.44	0.02	0.63	-0.68	1.00	1.00	n=52	51	51	51	51	n=52	51	51	51	51	
<b>Year 3</b>																					
Audit sum	0.25	0.13	0.23	0.19	-0.16	0.40	-0.23	-0.25	0.03	0.03	1.00	n=132	132	132	132	1.00	n=132	132	132	132	
Pyj personal	-0.04	0.38	0.02	0.21	0.28	-0.19	0.52	0.28	0.19	0.19	0.04	1.00	n=132	132	1.00	n=132	132	132	132	132	
Pyj profnal	0.16	0.23	0.38	0.36	-0.24	-0.38	0.43	0.55	-0.14	-0.14	-0.07	0.26	1.00	n=132	1.00	n=132	132	132	132	132	
Pyj sum	0.07	0.37	0.25	0.35	0.03	-0.37	0.62	0.52	0.05	0.05	-0.03	0.78	0.79	1.00	0.79	1.00	1.00	1.00	1.00	n=132	
Pyj conflict	-0.16	0.14	-0.29	-0.12	0.44	0.15	0.08	-0.22	0.28	0.28	0.09	0.59	-0.62	-0.03	-0.62	0.09	-0.03	-0.03	-0.03	1.00	

indicates two-tailed significance at 1%

indicates two-tailed significance at 5%

There are three sets of across-year correlations to consider as follows: years 1 and 2, years 2 and 3, and years 1 and 3. The latter set, concerning the years most distant in time, has the smallest number of significant correlations. The final two years have the most significant correlations. Years 2/3 also provide the only opportunity for examining the audit sign-off case between years. The correlation of “audit sum” between years 2 and 3, at 0.40, is highly significant, as expected, but could also be regarded as quite low given the subject was the same. Further, in each of the three sets of correlations, every correlation representing the same dimension of the FP case in different years (e.g. “pyj pers2” with “pyj pers3”, “pyj conf1” with “pyj conf3”, etc.) is highly significant. This suggests that ethical judgements are relatively stable across time, and that it may be possible that the prediction of ethical judgement will be improved by including lagged ethical judgement variables in the explanatory models. This idea will be further explored later in this chapter. The next level of the between-years analysis involves correlations between different dimensions of the FP case in different time periods. Again, there are many significant correlations between the personal, professional, and mean dimensions. In fact, it is more instructive to look at those correlations which are not significant. These tend to be between the personal and professional dimensions (pers2/prof1, prof2/pers1, pers3/prof1) and between the personal and mean dimensions (pers2/sum1, pers3/sum1). There are no cases where the professional and mean dimensions are not significantly correlated. This seems to illustrate the distinction between personal and professional considerations and perhaps the predominance of professional over personal considerations in ethical judgement. It is, however, very difficult to attach detailed meaning to these results at this stage, although some reference will be made to them in the conduct of further data analysis in this chapter.

### **8.2.2 Longitudinal statistics for the scenario responses**

Responses to the FP case, for which data are available for all three years, were compared on a case-by-case basis from the start to the end of the training period. Paired samples t-tests were conducted to see if there were any significant movements in the mean responses over the period. These tests were conducted to further explore and “describe” the data before formal hypothesis testing was undertaken. Table 8.2 gives the results. Of the seven scale items, significant changes were noted in items 1 (acceptable/unacceptable), 4 (in the firm's interests/not in the firm's interests), and 6 (professionally/not professionally acceptable). The interpretation column in the table gives the direction of change which was increasing acceptance of the decision made in the vignette not to “blow the whistle” on the client

company; it was more generally acceptable, more likely to be in the auditing firms interest, and more professionally acceptable. The final three rows of the table give the results of paired samples t-tests this time conducted on the changes in personal (items 2, 3, and 5) and professional (items 4, 6, and 7) factor means and the total scale mean over time. These reveal that there was a significant change in the professional factor mean over the three year period in the direction of increased professional acceptability, but no significant change in the personal factor mean. This result was anticipated from the significant changes in the individual scale items making up the professional factor and the lack of change in the items associated with the personal factor. Both the changes in the scale item means and in the professional factor mean indicate an increased professional acceptability of the auditors' actions in not publicly "blowing the whistle" on his client. These results are therefore indicative of a clear and increasing gap between the personal and professional dimensions of the FP case caused by movement in the professional dimension.

*Table 8.2: Mean changes in FP scenario responses over three year training period*

Scale item	Mean Yr 1	Mean Yr 3	t-value Yr 3 - 1	n	Direction of change
1. Acceptable/unacceptable	3.97	3.07	-3.26***	73	More acceptable
2. Morally right/not morally right	5.27	5.22	-0.23	73	No change
3. Acceptable/unacceptable to your family	4.97	4.63	-1.54	73	No change
4. In the firm's interests/not in the firm's interests	3.25	2.70	-2.0**	73	More in the firm's interest
5. Socially/not socially responsible	5.63	5.48	-0.69	73	No change
6. Professionally/not professionally acceptable	3.12	2.47	-2.38**	73	More professionally acceptable
7. Obligated/not obliged to act this way	3.67	3.23	-1.65	73	No change
Personal dimension ("pyj pers")	5.27	5.08	-0.98	73	No change
Professional dimension ("pyj prof")	3.32	2.79	-2.38**	73	More professional
Mean for whole scale ("pyj sum")	4.24	3.81	-2.42**	73	More acceptable

Item scoring as following: Acceptable, Morally right, etc. (1) to Unacceptable, Not morally right, etc. (7)

The gap between the personal and professional aspects of the scenario illustrate the potential for conflict between personal and organisational values (Kilby, 1993; Akaah and Lund, 1994; Liedtka, 1989). The presence of the two dimensions from the start suggests that subjects believe, on entry, that the profession requires them to act in a way which does not accord with their own personal values. The dissonance between personal and professional values appears to increase over time, suggesting that a combination of training, socialisation and work experience has strengthened subjects' conviction of what the profession requires. Trainees have perhaps learnt that whatever their own personal judgement of a situation, that the accounting world works in a certain way - in this case, to protect client confidentiality. Interview data can also shed some light on changing perceptions of professional ethics. Interviewees were asked whether and why professional ethics was important. One trainee's response at the start of training was:

“In an auditing role the prime function is to safeguard investors. In doing so you have a moral obligation to maintain a distance from the client such that we are not influenced by them, to maintain some form of independence - I think that's an important moral dimension to the work we do. It would be very easy for an accountant to be swayed by his client firm who he has a lot more contact with than by the people who I suppose he ought to be protecting, the shareholders.”

By the end of training, the *same interviewee* answered the same question quite differently:

“In certain respects, accountants are in quite a privileged position. They are generally in a position of trust as far as their clients are concerned. They also come into contact with information which they must not misuse. I think these are the two key ways in which ethics is important.”

A further interesting result from the t-tests is the significance of change of the general scale item (acceptable/unacceptable). This item is in the same direction as the professional dimension mean, implying that professional considerations have become more influential in ethical decision making over time.

The sample used in the above analysis consisted of 75 subjects who had completed questionnaires in years 1 and 3 (groups 1 and 2 in Table 6.4). Examination of the 51 subjects of group 1, who had responded in all three years, revealed that the changes were not linear, with significant changes in scenario responses to items 1, 4 and 6 being noted after 18 months of training and no significant change thereafter. Similar analysis was conducted of

an expanded sample including groups 1 and 3 (see Table 6.4). Scenario responses for this expanded sample of all 110 subjects who had responded in the first two years also changed significantly on items 1 and 6, but not on item 4, in the initial 18 months of training. This result lends support to the assertion that group 1 are a representative sample. The non-linearity of change suggests that the initial period of training is very important in terms of changing trainees' attitudes. Again, this is consistent with the socialisation literature.

The results of the paired samples t-tests demonstrate the fact that ethical judgement of trainee chartered accountants has changed over time. The remainder of this chapter attempts to investigate further the complexity of change and some of the factors driving it.

### **8.3 Testing of dynamic hypotheses**

The model developed in chapter 4 generated a number of hypotheses. The section is devoted to testing the dynamic hypotheses. These hypotheses are concerned with aspects of change which are expected to occur during the professional training experience of graduate accountants. They examine ethical decision making outcomes in a dynamic way, rather than relying solely on looking at ethical decision making at one point in time. Dynamic hypotheses can examine two aspects of change. The first involves looking at factors influencing ethical decision making and seeing if they change, becoming more or less important, over time. The second concerns time interdependence of ethical decision making, e.g. whether ethical decision making in one time period can be explained with reference to lagged variables such as ethical decision making or training in the previous period, or by dynamic variables such as changes in job pressures or organisational commitment over time. The dynamic hypothesis summary table is reproduced below (Table 8.3) from chapter 4 for ease of reference.

#### **8.3.1 Methods**

A variety of methods will be used in dynamic hypothesis testing. The first aspect of change described above, the changing importance of different factors over time, will be examined using the ethical judgement models estimated by multiple regression in chapter 7. These will not be re-estimated, but will now be compared across time to evaluate the dynamic hypotheses. In addition, a number of other methods will be used, details of which will be given in the relevant sections. These include the use of paired-samples t-tests to test the hypothesis concerned with changes in organisational commitment, the estimation of a multiple regression model using

longitudinal data to test the relationship between organisational and personal values, and the use of multiple regression to estimate a multiplicative model to test H<sup>D</sup>5 (following a methodology established in the ethical decision making literature by Tsui, 1994, and Tsui and Gul, 1996). In the case of the multiple regression analysis conducted in this chapter, the same diagnostic and model fitting procedures that were outlined in section 7.3.1.2 are employed. The dynamic hypotheses are addressed in two groups. First, section 8.3.2 examines hypotheses H<sup>D</sup>2, H<sup>D</sup>4 and H<sup>D</sup>5 which are all related to the issue of the relationship between personal and organisational values, already discussed elsewhere in this thesis. Second, section 8.3.3 describes the testing of the remaining hypotheses, H<sup>D</sup>1, H<sup>D</sup>3 and H<sup>D</sup>6. These are grouped together in one section because they are all tested in the same way, using models previously estimated in chapter 7, as described earlier in this paragraph.

*Table 8.3: Summary of dynamic research hypotheses*

<b>H<sup>D</sup>1</b>	Gender differences in ethical judgement will become less apparent over time as trainees are socialised into organisationally determined norms and roles.
<b>H<sup>D</sup>2</b>	Personal and organisational values become interrelated during the initial years of organisational life.
<b>H<sup>D</sup>3</b>	Organisational values will become increasingly influential on graduate trainees' ethical judgement over the training contract period.
<b>H<sup>D</sup>4</b>	Organisational commitment of graduate accountants increases over the training period.
<b>H<sup>D</sup>5</b>	The influence of organisational values on personal values at the end of the formal training period is moderated by the extent and direction of change in organisational commitment.
<b>H<sup>D</sup>6</b>	The opinions of peers will become less influential with increasing seniority within the firm.

### 8.3.2 Testing of dynamic hypotheses H<sup>D</sup>2, H<sup>D</sup>4 and H<sup>D</sup>5

H<sup>D</sup>2, the first hypothesis addressed in this section, concerns the direct influence of organisational values on personal values. This relationship was explored cross-sectionally in chapter 7. The focus in this chapter is to examine the notion that organisational and personal values increasingly become related *over time*. The purpose of H<sup>D</sup>4, the second hypothesis tested in this section, is to investigate whether commitment has increased, as is expected from the literature, in this study as this has implications for the extent to which trainees can be expected to assimilate their organisations' values into their own personal values. As discussed in chapter 4, organisational commitment is thought to be positively related to ethical judgement as it involves acceptance of the goals and values of the organisation, including sensitivity to its ethical values. Third, H<sup>D</sup>5 examines the moderating effect of changing commitment levels on the relationship between organisational and personal values.

*H<sup>D</sup>2 Personal and organisational values become interrelated during the initial years of organisational life.*

In order to test this hypothesis, it would be ideal to examine three sets of regression models, one for each aspect of personal values used in this study in each of the three years for which data were collected. Ideally, one could examine the information presented in Table 7.13 (results of linear regressions on aspects of personal values in year 3) for years one and two also. One could then observe any changes in significant predictors over the course of time. However, for reasons associated with available space on the questionnaires, discussed in section 5.4.4.1 and 5.4.4.2, personal values data were not available in the second year, and organisational values data were not available in the first year. Rather than concluding that the dynamic hypothesis cannot be tested, an experiment is proposed. It was decided to use organisational values in year 2 as a proxy for organisational values in year 1. The alternative was to use year 1 personal values in year 2. In terms of the subsequent regression, however, this would mean using organisational values in year 2 to explain personal values in year 1 - this makes little sense as the ultimate purpose of the exercise is to examine the change in personal values over time with respect to organisational values. It is acknowledged that a significant problem with taking year 2 organisational values data as a proxy for year 1 data is that there is a strong likelihood that due to intensive organisational socialisation, trainees' perceptions of organisational values would have changed over the first year. This approach is nevertheless considered worthy at



least of investigation on the understanding that the results should be considered exploratory. The results of estimating the same regression model as is reported in Table 7.13 are presented in Table 8.4. All variables included in the model other than organisational values were measured in year 1.

**Table 8.4:** Results of linear regressions on aspects of personal values in year 1<sup>⊙</sup>

	Val work	Val gen	Val hed	Val soc	Dvri
Val csr (yr. 2)	0.081 (0.820)	<i>insignificant model</i>	<i>insignificant model</i>	-0.126 (-1.298)	0.131 (1.338)
Val em (yr. 2)	-0.233** (-2.233)			-0.154 (-1.509)	-0.046 (-0.448)
Ra em	0.048 (0.440)			0.080 (0.770)	-0.036 (-0.340)
Jci oth em	0.149 (1.483)			-0.005 (-0.047)	0.074 (0.760)
L.o.c.	0.209** (2.192)			0.212** (2.261)	-0.035 (-0.371)
Sex	0.000 (-0.004)			-0.228** (-2.430)	0.322*** (3.439)
t <sup>constant</sup>	4.396			7.014	-2.216
Adj R <sup>2</sup>	0.09			0.10	0.07
F	2.802			3.037	2.356
Signif. of F	0.015			0.009	0.036
n =	105			107	109

\* significant at 10%

\*\* significant at 5%

\*\*\* = significant at 1%

Figures not in parentheses are standardised coefficient betas. Figures in parentheses are t-statistics.

⊙ Using organisational values in year 2 as a proxy for organisational values in year 1

As can be seen from the above table, two out of the five models estimated in year one were insignificant, and the remaining three models yielded low R<sup>2</sup>s (9%, 10% and 7%) relative to the equivalent models estimated in year 3 (20%, 22% and 14% - see Table 7.13). This appears to be largely due to the smaller number of significant explanatory variables in the year 1 models, specifically the lack of significance of the organisational values factors. The locus of control and gender effects appear similar in both years, namely that being female and/or having an internal locus of control orientation are associated with higher levels of personal values (see section 7.3.2.2). These results lend further support to hypotheses H<sup>C</sup>1 and H<sup>C</sup>3c. Organisational values, however, are significant in only one of the year 1 models compared to all five of the year 3 models. In the first year, the emergent organisational values factor is

significant in the first model whose dependent variable is the work or self-actualisation values factor. On the basis of the comparison between the two years' models, one could tentatively conclude that H<sup>D</sup>2, personal and organisational values become interrelated during the initial years of organisational life, is supported. This conclusion might be further justified if one considers that one would expect the use of year 2 organisational values data in the place of equivalent year 1 data to bias the results towards *rejection* of hypothesis H<sup>D</sup>2. The conclusion is also supported by discussions with interview subjects over the years of the training period. These discussions reveal the complexity of, and corresponding difficulty in researching, the subject of values. One subject expressed uncertainty when asked in the second year whether his values had been changed by his experience of the accounting firm and profession:

“I feel I’ve been peripherally changed but not fundamentally. It’s difficult to reflect on it. I no longer think that being a musician or a surfer or a ski bum is the coolest thing in the world to do. I now think that being a high flying finance professional would probably be quite hip as well. I suppose my outlook has changed. I don't know how much of that is the profession and how much is just me still growing up.”

Yet, over the years, the researcher discerned the increasing impact of organisational values on the same interviewee's outlook. In the first few years, his approach to his job was focused on himself as an individual, making sense of the tension of trying to do a very good job in a limited time period. Initially, he perceived this as an unacceptable role conflict, but gradually he began to incorporate organisational values such as risk appraisal, time efficiency and a client-service focus into his thinking. By the end of training, he appeared to have adopted the firm's goals as his own, and repeatedly referred to the firm as “we”. The following two quotations, from the second and third years' interviews respectively, are illustrative (*italics mine*):

“You're constrained with how long you've got to complete the work. My attitude now to auditing, which is different probably to what it was a year or so ago, is to try and *maximise the recovery* [of fees for the firm] and minimise the amount of overtime I do. I'm saying to myself right two weeks. I've got X number of days for this client and that is how long I will spend and I will do the best audit work I can in that time and will do as *high quality and as risk focused* work as I possibly can. I know when to stop - that's when I run out of time, unless something really major appears. I mean when I first started I attempted to achieve perfection in everything I did. I was like I was as a student really. There was no limit when you were a student - you could stay in the library all night and all day for a week to get an essay done if you wanted to. Or you could write it in three hours on a Friday afternoon and you know you would probably still get an adequate result. So it just depended on your values and views. You haven't got that choice at work - you haven't got the luxury and it's not your time, it's the client's.”

“Audit is very competitive. We are working hard at *improving our utilisation rates* at the moment [chargeable over standard hours - a measure of efficiency]. That’s one way we can improve. Plus the market is starting to hot up now - We’re so busy now that we can start to pick the best [most lucrative] clients”.

Despite these interview data, rather than drawing any firm conclusions here, it is probably more prudent, given the exploratory nature of the “proxy data” approach in the empirical work and the complexity of the issues, to conclude that further investigation is needed of the change over time in personal values in relation to organisational values. This is mainly because it is unclear whether the insignificance of the organisational values factors in the regression models reported in Table 8.4 is due to a genuine lack of relationship or whether it is due to the time lag inherent in the model estimation technique. Further investigation of the relationship between organisational and personal values is provided in the remainder of this section.

*H<sup>D</sup>4 Organisational commitment of graduate accountants increases over the training period.*

As discussed above, the change in levels of organisational commitment may have a bearing on the relationship between organisational and personal values. H<sup>D</sup>4 is tested using paired samples t-tests on the individual scale items in the scale used to measure firm commitment and on the scale mean. This scale is discussed in detail in section 5.4.3.4. The t-test results are given in Table 8.5.

From a review of the literature, organisational and professional commitment in accountancy is assumed to increase and develop over the socialisation period, particularly the first few years after entry into the profession (Aranya et al., 1982; Shaub et al, 1993). It is very clear from the above table that, in fact, firm commitment amongst the trainees in this study has fallen very considerably. The item with the biggest change of nearly two whole scale points over the period is “I find that my values and the firm’s values are very similar”. This is particularly interesting in terms of the present discussion of the impact of organisational values on personal values. On the basis of the evidence of these longitudinal t-tests, it is concluded that H<sup>D</sup>4, organisational commitment of graduate accountants increases over the training period, is not supported. The results actually suggest that the reverse may be true. Whilst this finding is unexpected vis-à-vis the accounting literature, discussions with other accountants known personally to the author,

**Table 8.5: Mean changes in commitment to the firm over period of training contract**

Scale item	Mean Yr 1	Mean Yr 3	t-value Yr 3 - 1	n	Direction of change
I am willing to put in a great deal of effort beyond that normally expected in order to help my firm be successful.	3.08	3.36	1.614	73	Insignificant change
I would accept almost any type of job assignment in order to keep working for my firm.	3.73	5.11	7.068***	74	Commitment has fallen
I find that my values and the firm's values are very similar.	2.40	4.20	10.471***	74	Commitment has fallen
I am proud to tell people that I am part of this firm.	3.39	3.24	-0.738	74	Insignificant change
This firm really inspires the very best in me in the way of job performance.	3.32	4.49	5.993***	74	Commitment has fallen
I am extremely glad that I chose this firm to work for over others I was considering at the time I joined.	2.68	3.39	3.423***	71	Commitment has fallen
I really care about the fate of this firm.	2.75	3.60	4.644***	74	Commitment has fallen
<i>Scale mean</i>	3.05	3.91	6.650***	74	Commitment has fallen

Item scoring as following: Strongly agree(1) to Strongly disagree(7)

with interview subjects, and reference to the researcher's own personal experience strongly suggest that graduate accountants training in large firms become increasingly disillusioned about, and less committed to, their employers over the training period. At the start of training, one particular interviewee said "This firm is far superior to the others", yet by the end of training she was clearly very disillusioned:

"They teach you on the courses that Firm X are better than any of the others - they drill it into you that all the others aren't very good...this is the brainwashing we get. But if I stay in practice, I'll stay at Firm X because I'm sure none of the others are any better. I'm sure they're all as bad as each other."

The reason for her disillusionment appeared to centre around feelings of not being valued or listened to and loss of respect for the partners. In the third year, she described having been to see a partner with a list of suggestions on a particular issue:

"I thought it was the kind of firm that's meant to be if you've got any opinions come and tell us and we'll respect that. Some people are saying I did right to come forward but other people are saying I shouldn't have, and I should shut up now and just put up with it. I don't like working for a firm like that."

This contrasted with the experience of one of the other interviewees (working in a different office, but the same big 6 firm) who was still very content with his firm at the end of training, the only one of the group who was. He described one of the ways in which he thought his firm valued employees' opinions:

“They have a large employee survey - it's a booklet with 30 odd pages in it! So they *are* focusing on what people say. I think they are concerned about how people feel. At the end of the day, I think business comes first, but I think they are concerned about what people think.”

The remaining interviewees were significantly less committed at the end of training than they had been at the outset:

“Of late, I've begun thinking that the grass might be greener elsewhere. I think I want to move to London - it could be with Coopers, but it could equally be elsewhere. If I ever feel like I'm treading water, not getting anywhere, not being challenged, I'll leave.”

“I think the accountant in me saps a lot of time and energy. It saps individuality, it saps flair. For me, its sapped a lot of my *joie de vivre*. I used to enjoy life a lot more than I do at the moment.”

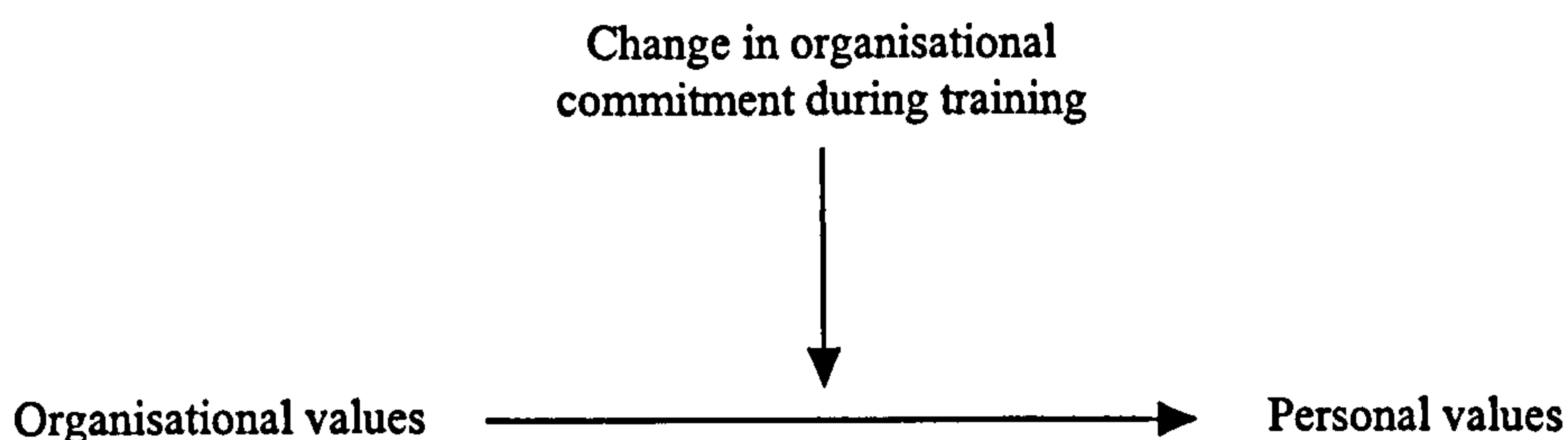
“They have tried everything they can to make me want to stay. So even though there's a career path there and the potential for good money, very good money, its just not...it's just that I've taken the sh\*\*, I've had enough of it. I've got a mind now to do something different. The potential is there, the opportunities are great. So you move on.”

Therefore, whilst the finding of declining organisational commitment lacks direct theoretical support, it does have strong resonance elsewhere. There is also some indirect theoretical support for it. According to Coffey (1993), chartered accountancy training is characterised by high “reality shock”, while others have shown that reality shock tends to be inversely related to organisational commitment among accountancy students (Dean et al., 1988). Practitioners may be particularly interested in this finding as it casts considerable doubt on the ability of socialisation programmes run by training firms to build commitment. Its importance in terms of the aims of the current study is that it may have a bearing on the way that organisational values interact with personal values. This interaction is addressed next.

*H<sup>D</sup>5* The influence of organisational values on personal values at the end of the formal training period is moderated by the extent and direction of change in organisational commitment.

As previously stated, this hypothesis examines the moderating effect of changing commitment levels on the relationship between organisational and personal values. For the purpose of this and subsequent analysis a new, dynamic variable was calculated for the change in the firm commitment scale mean between years 1 and 3. This variable is termed “fcommt ch”. The relationship which is the subject of H<sup>D</sup>5 can be depicted as follows:

*Figure 8.1: Depiction of the interactive hypothesis number H<sup>D</sup>5*



H<sup>D</sup>5 is tested using a method used in the ethical decision making literature by Tsui (1994) and Tsui and Gul (1996) to test for the interactive effect of ethical reasoning on the relationship between locus of control and ethical judgement. It involves the estimation of a multiple regression model in which personal values is the dependent variable and which includes a cross-product term, as has been explained in chapter 7. As suggested by Tsui and Gul, the more stable of the independent variables, organisational values, is treated as the primary independent variable in the analysis. Tsui and Gul (1996) further develop their approach by examining the partial derivatives of the regression model to gain more information about the nature and direction of the interaction. The procedure will be explained during the various stages of the analysis which follows.

The following multiplicative model is estimated:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 X_2 \quad (8.1)$$

where,

Y is year 3 personal values measured by the strength of conviction measure “val soc”

X<sub>1</sub> is the change in firm commitment over the formal training period “fcommt ch”

X<sub>2</sub> is the main organisational values factor “orgval em” measured in year 3

X<sub>1</sub>X<sub>2</sub> is the interaction term.

and,

H<sub>0</sub>: β<sub>3</sub> = 0

H<sub>1</sub>: β<sub>3</sub> ≠ 0

**Table 8.6: Results of interactive multiple regression model on personal values (s.o.c.)**

Variables		Unstandardised coefficients		t-value
		β	Standard error	
Change in firm commitment	X <sub>1</sub>	-1.600	0.626	-2.558**
Organisational values	X <sub>2</sub>	-3.600	0.625	-5.756***
Change in firm commitment × organisational values	X <sub>1</sub> X <sub>2</sub>	0.600	0.119	5.044***
t <sup>constant</sup>				11.644
Adj R <sup>2</sup>	0.30			
F	11.785			
Signif. of F	0.000			
n =	74			

The null hypothesis is that the coefficient for the interaction term is zero, indicating that the interaction is not significant. Table 8.6 presents the results for the multiple regression model. They suggest that the alternative hypothesis, that there is significant interaction, may be accepted since the coefficient for the interaction term is highly significant. A further check on this result, not conducted by Tsui and Gul, is provided by performing a nested hypothesis test for the significance of the contribution to the regression model provided by the interaction term. The nested hypothesis testing procedure is explained in Gujarati (1995, p. 253). It involves running an original model which includes the interaction term, as reported in Table 8.6, and a constrained model, in this case without the interaction term. An F test is used based on the ratio of change in R<sup>2</sup> between the two models. If the constraint is justified, then the F-statistic will

not be significant and the null hypothesis that the removal of the new variable does not detract from the model is accepted. The formula for the calculation of the F statistic for nested hypothesis testing is as follows:

$$F = \frac{(R^2_{\text{orig}} - R^2_{\text{constrained}}) / \text{no. of extra regressors}}{(1 - R^2_{\text{orig}}) / (n - \text{no. of parameters in original model})} \quad (8.2)$$

In this case,

$$F = \frac{(0.332 - 0.093^1) / 1}{(1 - 0.332) / (74 - 3)}$$

$$F = 25.40$$

The test statistic is clearly significant at the 1% level and the null hypothesis is therefore rejected in favour of the alternative that removal of the interaction term *does* detract from the regression model.

Having established that the interaction effect is significant, it is necessary to examine the partial derivative of equation (8.1) in order to obtain further information about the nature of the effect (Schoonhoven, 1981; Gul and Chia, 1994; Tsui and Gul, 1996):

$$\begin{aligned} \delta Y / \delta X_2 &= \beta_2 + \beta_3 X_1 \\ &= -0.782 + 0.768 X_1 \end{aligned}$$

$$\begin{aligned} \text{Point of inflexion on } X_1 &= -\beta_2 / \beta_3 \\ &= 6 \end{aligned}$$

The analysis of the partial derivative is illustrated graphically in Figure 8.2. On the graph, the horizontal axis displays the moderating variable of change over time in firm commitment. The vertical axis shows the rate of change in personal values with respect to organisational values. The graph shows that at lower levels of decline in firm commitment, the relationship between organisational and personal values is negative. This is because the scales for organisational and personal values are coded in opposite directions. The negative relationship actually means that

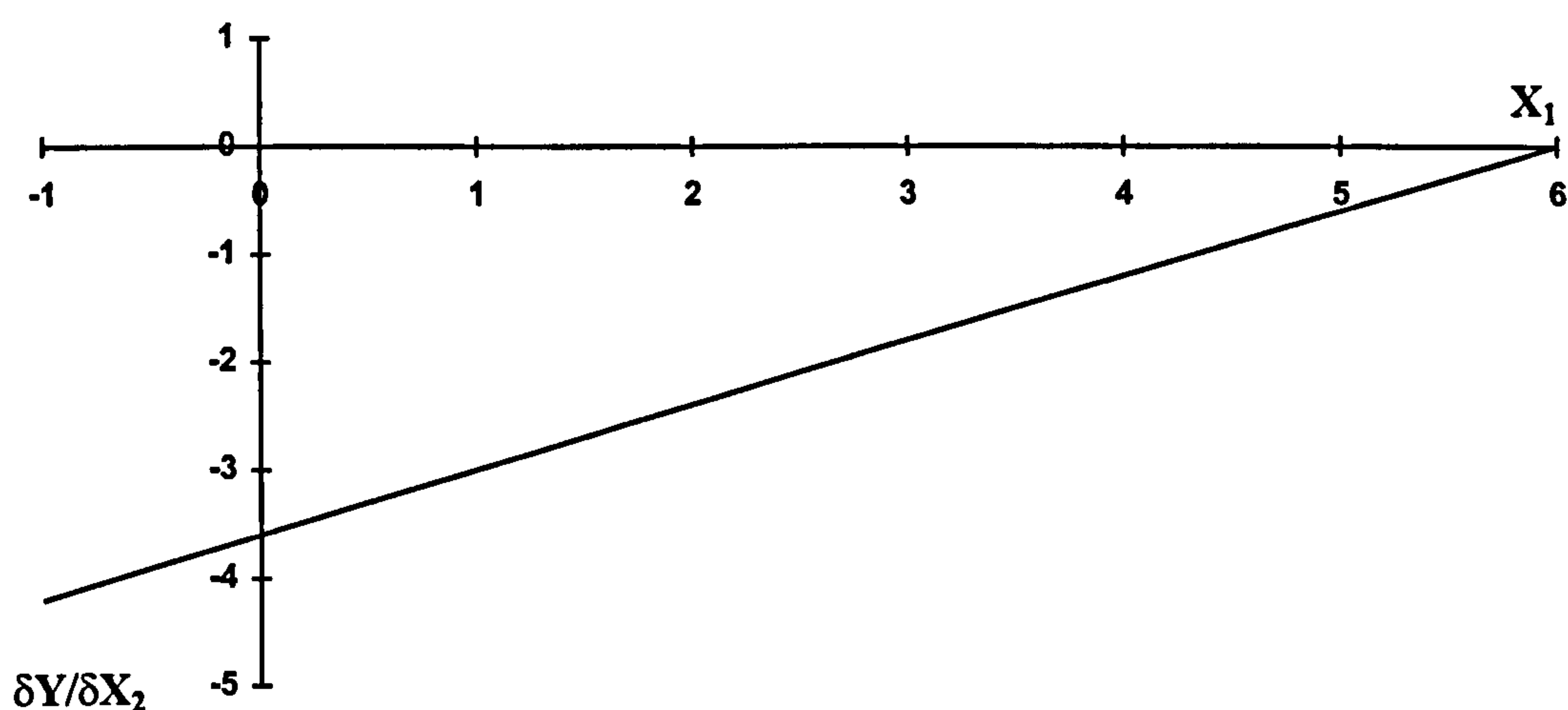
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<sup>1</sup> This R<sup>2</sup> is derived from a model which regresses change in firm commitment and organisational values on personal values with no interaction term.



when commitment is stable over the period, organisational and personal values are positively associated. At the other end of the graph, when decline in firm commitment is at its maximum of 6 (recalling that it is scored on a 1 to 7 scale), the rate of change in personal values with respect to organisational values is zero. This indicates that for individuals who have become less committed to their firms over time, organisational values have less of an effect on their personal values than for those individuals whose commitment remains constant. From this it can be concluded that  $H^D5$  is supported.

*Figure 8.2: The effect of change in firm commitment ( $X_1$ ) on the relationship between organisational values ( $X_2$ ) and personal values ( $Y$ )*



From an intuitive perspective, this finding may not be considered particularly noteworthy in that it is not surprising to find trainees who are increasingly uncommitted to their firms being less influenced by its values than those who remain committed. Combined, however, with the previous finding that levels of trainees' firm commitment fell significantly in this study across the whole longitudinal sample<sup>1</sup>, training firms might do well to consider whether the experience of training is conducive to generating the conditions in which they can retain, at the end of the formal training period, a subgroup of well-motivated individuals who are committed to the values of the organisation and of the profession.

<sup>1</sup> Although independent-samples t-tests of "fcommt" in year 3 split by career intentions show that would-be leavers had lower levels of commitment than those undecided or planning to stay (at  $p=0.03$ ), paired-samples t-tests reveal that the fall in commitment over the three year period was significant for both groups. The change in the commitment scale mean for the group planning to leave generated a t-statistic of 5.16, significant at 1% ( $n=30$ ). The equivalent statistic for those undecided or planning to stay was 4.43, also significant at 1% ( $n=43$ ).

### 8.3.3 Testing of dynamic hypotheses H<sup>D</sup>1, H<sup>D</sup>3 and H<sup>D</sup>6

Hypotheses H<sup>D</sup>1 and H<sup>D</sup>6 are tested, as described in paragraph 8.3.1, using models previously estimated. They are dealt with as a group of hypotheses which require no further regression analysis to be conducted.

*H<sup>D</sup>1 Gender differences in ethical judgement will become less apparent over time as trainees are socialised into organisationally determined norms and roles.*

Literature discussed in chapters 3 and 4 indicates that there is still considerable debate about the effect of gender on ethical decision making amongst accountants. In testing the hypothesis that female professional accountants exhibit higher levels of ethical judgement than males, chapter 7 concluded that although the gender variable tended not to be significant in any of the cross-sectional models of ethical judgement, it was highly significant in the year 3 regression on strength of conviction (personal values). Since personal values *were* highly significant in ethical judgement, it was concluded that gender impacts on ethical judgement indirectly through strength of personal values rather than having a direct effect on ethical judgement. The dynamic issue regarding gender concerns whether gender differences in ethical judgement withstand the forces of organisational socialisation into the strong culture of most professional accounting firms. The increase in ethical homogeneity with increasing seniority found by Ponemon (1990) may indicate that gender differences are mitigated by the accountant's organisational environment.

The hypothesis can be assessed with reference to a number of regression models estimated in this and the previous chapter. First, changes over time can be discerned by examining change in the significant variables in the cross-sectional regression models reported in Tables 7.7 to 7.9. As already discussed, however, sex was only a significant variable in one first year model. This avenue of investigation clearly does not advance our understanding of the dynamic issues. As noted above, results presented in chapter 7 suggest that sex has an indirect effect on ethical judgement via strength of personal values (Table 7.13). In order to consider the dynamic aspects of the gender effect on personal values, Table 8.4, regressions on personal values in year 1 can be compared with Table 7.13, the equivalent regressions in the third year. In both cases, sex is a significant predictor of strength of personal values (having standardised betas of -0.228 and -0.263 in the first and third years respectively). This suggests that the impact of

organisational environment has not mitigated gender differences over the training period. The finding that this relationship between sex and strength of personal values exists in two time periods three years apart, combined with the significance of strength of personal values in explaining ethical judgement, lends support to the notion that gender differences “survive” the forces of socialisation during graduate accountancy training.  $H^D1$  is therefore rejected. The notion that gender has an indirect effect on ethical decision making through personal values has received little attention. These results suggest that it may provide a fruitful area for further theoretical and empirical study.

*$H^D3$  Organisational values will become increasingly influential on graduate trainees’ ethical judgement over the training contract period.*

Due to the fact that organisational values data were not collected in the first year, this hypothesis cannot be tested fully. We can, however, compare the regression models on ethical judgement in year 2 (Table 7.8) to those in year 3 (Table 7.9). The main organisational values factor comprising scale items such as efficiency, growth, profit maximisation, etc., was not significant in any of these models (and was subsequently dropped from the models for reasons explained in chapter 7). The service/social responsibility factor consisting of “service to the public” and “value to the community” was, however, weakly significant (at 10%) in the personal dimension of the FP case, becoming strongly significant (at 1%) in both models reported for the FP case in the final year. In neither year was the social responsibility factor significant in the audit sign-off case. These findings suggest first, that the influence of organisational values may be contingent upon the case or issue under consideration (Jones, 1991) and second, that social responsibility may have a direct and increasing effect on ethical judgement in particular cases.

On the subject of the insignificance of the emergent organisational values factor, it is interesting to note that, in the year 3 personal values regressions in Table 7.13, the emergent factor was strongly significant in four out of five models. This suggests that socialisation may be effective in inculcating trainees with the more “mainstream”, commercial values such that these values are influential on ethical judgement via personal values. Whether through this indirect route or directly in the case of the social responsibility values, the findings of this study support hypothesis  $H^D3$  that organisational values become increasingly influential on graduate trainees’ ethical judgement over the training contract period. More research is needed, however, to

verify these findings and to provide clarification of the precise nature of some of these relationships.

*H<sup>D</sup>6 The opinions of peers will become less influential with increasing seniority within the firm.*

Hypothesis testing in chapter 7 concluded that H<sup>C</sup>12, the opinions of peers is significant in ethical judgement, was not supported. Given the fact that peer group opinion was not significant at the start of training, it is impossible to test the dynamic hypothesis that peer group opinion decreases over time.

#### **8.4 The use of longitudinal data to extend previous analysis**

In addition to the testing of specific hypotheses generated from the model developed in chapter 4, this thesis is also interested in the general question of the usefulness of dynamic analysis. For instance, cross-sectional hypotheses H<sup>C</sup>10, 11, 12, and 13 are all concerned with the effect of “motivation” situational variables on ethical judgement. To examine these in a dynamic way, one can rerun the chapter 7 cross-sectional models substituting dynamic versions of the situational variables for the cross-sectional variables included previously to see whether the dynamic variables hold any more explanatory power than the cross-sectional ones. Further, lagged values of ethical judgement can be included to examine the time interdependence and stability of the ethical judgement construct. Strictly speaking, this sort of procedure does not test any new hypotheses. Rather, it examines existing hypothesised relationships in a dynamic manner. This section will present the results of re-estimating the regression models run in chapter 7 including dynamic and lagged variables.

Before presenting the results, the procedures for variable specification need to be addressed. The situational variables which were hypothesised to be associated with change over time in ethical judgement are ethics training, the combination of commitment and organisational values, reinforcement contingencies, peer group opinion and external pressures (H<sup>C</sup>9, 10, 11, 12, and 13). For some of these variables, there is no intuitive rationale for examining lagged or dynamic versions of the constructs. For example, the ethics training construct measures, in each year, the cumulative amount of ethics training received by trainees in their training to date - there is therefore no rationale for including year 2 responses, for instance, in a year 3

regression model. Peer group opinion has already been considered in the previous section, and similarly, it is unlikely anything is to be gained from examining this variable in a dynamic way. For the remaining constructs, however, it was unclear whether their inclusion in a lagged or dynamic form could improve the chapter 7 models. To investigate this possibility, change variables were calculated (by subtracting year 1 mean scores from year 3 mean scores) for the emergent role ambiguity and conflict factors, and for each of the power factors. In addition, a change variable was computed for the cross-product variable of commitment and organisational values by multiplying the change in firm commitment with the year 3 emergent organisational values factor. This variable allowed for the longitudinal examination of H<sup>C</sup>10. Another aspect of time interdependence investigated was whether lagged versions of ethical judgement itself could help predict ethical judgement. Each regression model reported in chapter 7 for year 3 was then re-estimated adding an ethical judgement variable lagged by one period and with change variables being substituted for the equivalent cross-sectional ones e.g. change in role ambiguity for year 3 role ambiguity, “fcommt ch × orgval.em3” for “fcommt3 × orgval.em3”, etc.

Preliminary results for the re-estimated models indicated several problems. First, the number of cases available for analysis was reduced by adding change and lagged variables covering all three years to a maximum of 51. While this number is acceptable, one of the variables included in the models further reduced the total degrees of freedom: The continued inclusion of the cross-sectional variable concerning firm’s support for ethics reduced the number of cases to 40. In order to maximise the available number of degrees of freedom, therefore, “firmsup” was dropped. Although this decision was essentially a practical one, the insignificance of “firmsup” in 10 out of the 11 cross-sectional models reported in chapter 7 suggests that its exclusion is not conceptually problematic. The second problem was that the use of the change variables for role conflict, ambiguity and for power and the continued inclusion of “soczn orgval” (socialisation × emergent organisational values factor) from the chapter 7 models generated an unacceptable degree of multicollinearity (using criteria discussed in chapter 7). In order to deal with this problem, the models were repeatedly re-estimated first, including the offending variables one at a time and second, using lagged variables instead of change variables (e.g. using role conflict in year 2 instead of change in role conflict). None of these alternative formulations of the variables proved significant, so the decision was taken to exclude them. This had the dual beneficial effect of reducing multicollinearity to acceptable levels and of increasing the residual degrees of freedom. A third problem involved the cross-product change variable (commitment

change × organisational values). Not only did it appear to be insignificant, as was the equivalent cross-sectional variable in chapter 7, but it was also the cause of multicollinearity. Rather than deleting it from the models, it was decided, in the light of the significant findings regarding the impact of change in firm commitment on values discussed in section 8.3.2, to test for a direct impact of commitment change on ethical judgement. The cross-product variable was therefore discarded and replaced with one component of it, change in firm commitment.

The results of the models estimated as described in the previous paragraph are presented in Table 8.7. For each model, the collinearity statistics were examined thoroughly. It is especially important to do this when using lagged variables. All Variance Inflation Factors were below 2, the prudent cut-off point decided upon in chapter 7 (see discussion of diagnostics and model fitting in section 7.3.1.2).

A number of general points can be made about the results of the dynamic regression analysis. First, of the dynamic variables added for the purposes of this analysis, only the lagged ethical judgement and the commitment change variables proved significant. However, it would appear that these added significantly to the explanatory power of the models, especially in the FP case. Whereas two of the cross-sectional models were insignificant (the professional and conflict dimensions of the FP case), the dynamic analysis yielded significant models in all five cases. Further, the levels of  $R^2$  were generally much improved (e.g. 22% to 62% for FP - personal, and 40% to 55% for FP - sum; see nested hypothesis testing later in this section). The lagged ethical judgement variable is significant in all models, although only at 10% in the audit sign-off case and the conflict dimension of the FP case. Ethical judgement therefore appears to be a relatively stable construct over time. Its stability ties in with previous findings in this study which have emphasised both the relative stability of personal values and its importance in ethical judgement. Change in firm commitment is only significant in the FP - conflict case. Another recent empirical study of professional accountants by Shaub et al. (1993) produced a similar finding that neither organisational nor professional commitment were significant in explaining experienced auditors' ethical sensitivity. These findings that commitment and change in commitment do not influence ethical judgement are explainable in terms of the relationship discovered in section 8.3.2, namely that the significance of firm commitment lies in its interaction with organisational values rather than a direct effect either on personal values or on ethical judgement.

**Table 8.7: Results of dynamic linear regressions on aspects of ethical judgement in year 3**

Regressand Regressors	Audit sign-off	Flammable pyjamas			
	Sum Model no. 1	Personal Model no.2	Professional Model no.3	Sum Model no. 4	Conflict Model no.5
val soc	-0.235 (-1.513)	-0.341*** (-3.276)	0.136 (0.944)	-0.146 (-1.222)	-0.388*** (-2.988)
dvri	-0.132 (-0.836)	0.115 (1.057)	0.042 (0.317)	0.104 (0.922)	0.132 (1.011)
per mat	-0.059 (-0.364)	-0.127 (-1.058)	0.043 (0.269)	0.008 (0.057)	-0.084 (-0.611)
sex	0.139 (0.968)	0.070 (0.694)	-0.091 (-0.659)	-0.053 (-0.471)	0.134 (1.058)
f ethics	-0.174 (-1.045)	0.017 (0.159)	0.048 (0.300)	0.126 (0.915)	-0.278* (-1.907)
e tr days	-0.269* (-1.794)	0.232** (2.348)	-0.193 (-1.496)	0.032 (0.304)	0.287** (2.409)
orgval csr	0.382** (2.222)	-0.231** (1.980)	-0.070 (-0.444)	-0.226* (-1.698)	-0.137 (-0.935)
pwr crc	-0.035 (-0.242)	-0.007 (-0.066)	0.017 (0.128)	-0.020 (-0.183)	-0.120 (-0.953)
raem	0.213 (1.173)	0.215* (1.738)	-0.029 (-0.173)	0.062 (0.449)	0.131 (0.837)
rcem	-0.088 (-0.534)	0.135 (1.083)	0.370** (2.384)	0.344** (2.577)	-0.277* (-1.845)
EJ in year 2 (lagged var.)	0.317* (1.934)	0.543*** (4.848)	0.499*** (3.604)	0.566*** (4.684)	0.251* (1.958)
fcommt ch (change var.)	-0.142 (-0.977)	0.118 (1.120)	-0.097 (-0.694)	-0.021 (-0.182)	0.274** (2.113)
t <sup>constant</sup>	2.234	3.073	-0.837	1.180	3.516
Adj R <sup>2</sup>	0.21	0.62	0.33	0.55	0.43
F =	2.081	7.541	2.833	5.581	3.842
Signif. of F	0.044	0.000	0.007	0.000	0.001
n =	49	48	49	48	49

\* significant at 10%      \*\* significant at 5%      \*\*\* = significant at 1%

Additionally, coefficients significant at 5% or less are shaded.

Cells bordered with a double line indicate that this coefficient was significant in the equivalent cross-sectional model reported in Table 7.9, but is not significant here.

Figures not in parentheses are standardised coefficient betas. Figures in parentheses are t-statistics.

Other observations to be made about the dynamic regression results concern the insignificance of variables which were important in the cross-sectional models. Essentially, patterns of significance of individual variables in the dynamic models follow those in the cross-sectional models. There are, however, a number of exceptions. These are indicated in Table 8.7 by double lined cell borders. Most notably, strength of personal values is not significant in the audit sign-off case nor in the FP - sum case. In both cases the direction is the same as in the cross-sectional models and in the audit case, the absolute value of the standardised regression coefficient is virtually unchanged at -0.23, the lack of significance being caused mainly by the lower number of cases in the analysis. In the dynamic version of the FP - sum model, however, it is more difficult to explain the lack of significance of the values factor. It may be that the influence of personal values has been overshadowed by the influence of ethical judgement in year 2, for which the standardised regression coefficient is very high at 0.566. The only other variables which have lost their significance in the dynamic models are materialism ("per mat") and the emergent role ambiguity factor both in the audit sign-off case. The role ambiguity regression coefficient is still quite high at 0.213, indicating that a relationship still exists, but there is no clear reason for the decline in significance of materialism.

Finally, it is interesting to examine the FP - professional and conflict models, previously found insignificant. First, in the professional dimension model, the only significant variables are role conflict and ethical judgement in the previous year. Strength of personal values does not influence the professional considerations in ethical judgement. This finding helps to explain why the personal and professional dimensions of the FP case are so distinct. One might expect, instead, to find other influential variables such as perception of firm's ethical values, ethics training or organisational values. However, these are also insignificant. Role conflict is highly significant. The positive coefficient indicates that high role conflict is associated with judging the scenario to be more professionally acceptable. This is the same direction as was found in, and discussed in relation to, cross-sectional model numbers 2, 6, and 11. Role conflict is also highly significant in year 3 in both the cross-sectional and the dynamic FP-sum models. It is as if the perception of high role conflict *allows* subjects to understand and draw a distinction between what appears, on the one hand, to be morally dubious behaviour judged from a personal or intuitive perspective, but which on the other hand has a strong professional justification. The second, previously insignificant model is the conflict dimension of the FP case. Strength of personal values is highly significant, as



expected, with strongly-held values being associated with high perceived conflict between personal and professional dimensions.

As mentioned above, the significance of the contribution of dynamic and lagged variables to the goodness-of-fit of the models can be assessed using nested hypothesis testing using the method described in section 8.3.2. Table 8.8 provides the results of the tests. The F-statistic is calculated according to the formula in equation 8.2 above. "Orig." in Table 8.8 refers to  $R^2$  (not adjusted) of the unconstrained regression models 1 to 5 in Table 8.7 i.e. with the two dynamic variables, ethical judgement in year 2 and change in firm commitment. "Constr'd" refers to the same regression models constrained to exclude the two dynamic variables. The rationale for running the tests can be seen in general terms as to investigate the value of collecting longitudinal data, rather than just cross-sectional data, and in specific terms, to investigate the significance of the contribution of these particular variables. It can be seen from the nested hypothesis test results that the dynamic variables added in this chapter contribute very significantly to the explanation of the various ethical judgement dimensions. From this and particularly from the results in section 8.3.2, it can be concluded that while the dynamic results of this thesis do not form the main body of the study's findings, they are, nevertheless, worthwhile.

*Table 8.8: Results of nested hypothesis testing for the addition of dynamic components in multiple regression analysis*

Model	$R^2_{\text{constr'd}}$	$R^2_{\text{orig}}$	Degrees of freedom <sub>orig</sub>	F-statistic	Significance
Audit sign-off	0.172	0.403	37	7.16	0.000
FP - personal	0.207	0.715	36	32.08	0.000
FP - professional	0.363	0.506	36	13.63	0.000
FP - sum	0.226	0.675	35	24.18	0.000
FP - conflict	0.113	0.581	36	20.11	0.000

## 8.5 Conclusions of dynamic analysis

One of the contributions this thesis aims to make is to investigate change in ethical decision making of trainee chartered accountants. This change takes place within the particular context of the professional socialisation and training programmes run by professional accountancy

firms. As has been discussed in chapter 4, there is very little guidance in the literature about the way professional accountancy training will affect ethical decision making. Accordingly, this thesis cannot offer a detailed understanding of the process of change. The role of this chapter, however, is to examine some of the dynamic issues which arise from the model in chapter 4. It examines ethical decision making outcomes in a dynamic way, rather than relying solely on looking at ethical decision making at one point in time.

A large part of the hypothesis testing presented in this chapter has concerned the relationship between organisational and personal values. Cross-sectional investigation of this relationship discussed in section 7.3.2.2 has already shown that organisational values were a significant influence on personal values in the third year. In section 8.3.2 of the current chapter, an attempt was made to discover any change in the influence of organisational values since the start of training. Since this relied on the use of year 2 organisational values data as a proxy for the equivalent data in year 1, firm conclusions on the dynamic issues cannot be drawn. It can, however, be concluded from analysis in chapter 7, that by the end of training, first, social responsibility organisational values influenced ethical judgement in the FP case (although not the audit sign-off case) and second, organisational values of a commercial nature are a significant influence on personal values. Thus, “mainstream” organisational values affect ethical judgement indirectly through the personal values construct. Testing in this chapter has shown that the organisational-personal values relationship is further complicated by change in firm commitment. Section 8.3.2 investigated the notion that organisational commitment, implying acceptance of the goals and values of an organisation, moderated the influence of organisational on personal values. Using the Tsui and Gul (1996) methodology, it was demonstrated that the influence of organisational values on personal values was much greater for trainees whose commitment to their firms remained constant over the training period than for those whose commitment to their firms had fallen over the same period. Coupled with the finding that firm commitment fell very significantly over the period across the whole group of trainees, this suggests that many trainees’ personal values, which they employ in ethical judgement, are minimally informed by organisational values and expectations. One would expect this to result in a greater variability in ethical decision making and potentially a higher chance of professionally undesirable outcomes. The significance of this finding from a theoretical viewpoint is that whilst the literature has discussed a possible link between commitment and ethical judgement and sensitivity (Shaub et al., 1993), no empirical verification has been provided for it. This result suggests that the significance of commitment

lies first, in its relationship to the organisational-personal values relationship rather than directly on ethical judgement, and second, in the fact that it is dynamic in nature i.e. it arises as a result of change in commitment over time.

Another significant result from the analysis in this chapter concerns gender. Further support was found for the relationship between gender and personal values discussed in chapter 7. This was found to exist in the first year as well as the last. In the debate about the effects of gender on ethical decision making in organisational settings, it was concluded that gender differences “survive” the socialisation process, but that the significance of gender, as in the case of commitment discussed above, lies in its indirect effect on ethical judgement via personal values. A final noteworthy finding arose in the autoregressive models estimated in section 8.4 to add dynamic components to the models used in chapter 7. These found that ethical judgement in the previous time period was a significant predictor of ethical judgement in the present. It was concluded that ethical judgement is a relatively stable construct, congruent with previous findings in this study which have emphasised both the relative stability of personal values and its importance in ethical judgement.

In conclusion, there are two general themes emerging from this chapter. The first concerns the value of collecting longitudinal data and conducting dynamic analysis. As discussed in both this and the previous chapter, a number of interesting findings have resulted from the comparison of models estimated across different time periods. In addition, however, this chapter has reported some interesting results from dynamic analysis using lagged or change variables. In particular, these were the effect of changing commitment levels on the impact of organisational values on personal values, and the improvement in the chapter 7 regression models by adding lagged ethical judgement variables. As noted in section 8.4, dynamic analysis forms the minor part of the data analysis presented in this thesis. It has, nonetheless, generated some significant and worthwhile insights into the changing nature of the ethical decision making of trainee accountants. The second theme to emerge from this chapter is the reinforcement of the importance of the use of the values basis in ethical decision making research. Personal values has been demonstrated to be related to organisational values both in cross-sectional and dynamic analysis. Further, areas of uncertainty in the literature about the relationship of various factors such as commitment and gender to ethical decision making have been illuminated by the results in this chapter. These have suggested that the significance of these variables lies in their relationship to personal values, rather than their direct effect on

ethical judgement. In the next and final chapter, this chapter's results will be discussed further in the context of drawing together the main themes and insights offered by the thesis as a whole.

## Chapter 9: Conclusions

### 9.1 Introduction

The researcher's principal aim in undertaking this study was to investigate the factors which influence the way graduate accountants form ethical judgements during the period of their professional training. It was anticipated at the outset of the study that the balance of these influential factors would change over time, so a longitudinal design was used. The normative assumption guiding the choice of research question, outlined in chapter one, is that high standards of ethical behaviour have relevance to the success and to the value to society of the accountancy profession. It was hoped that in conducting such a study, the findings would contribute to the existing knowledge of ethical decision making and to the debate about the efficacy of graduate accountancy training in the UK. In both of these cases, the study has yielded interesting and potentially useful results. It represents one of a very small number of empirical studies of the ethical decision making of graduate trainee accountants in the UK and the first major longitudinal study.

The research was conducted primarily within the positivist and empirical paradigms, the dominant paradigm in business ethics research. The researcher was, however, mindful of the criticisms particularly of qualitative business ethics researchers from the very early stages. The research design was formulated with such criticisms in mind, using various mechanisms such as multidimensional response scales and parallel interviews to facilitate the investigation of situational complexity. A degree of theoretical integration of the normative and empirical business ethics fields is achieved in the design of the approach to analysing scenario responses.

This final chapter begins with a summary of the conceptual issues addressed by the study and a reminder of the ways in which it makes an original contribution to knowledge. Then in section 9.3, a brief summary of the fieldwork upon which the study is based is given. Section 9.4 summarises the most important results of the study and discusses some general issues around the empirical testing of complex theoretical models. In section 9.5, the implications of the research for academics and for the accountancy profession are explored. The

limitations of the study are outlined in section 9.6 following which suggestions for future research are made. Finally, some concluding comments are made.

## **9.2 Conceptual issues addressed**

The main conceptual issues addressed by this study are those concerning ethical decision making by individuals in organisations. It was noted in chapter 4 that, despite the existence of a significant backlog of ethical decision making models which await empirical testing, theory development will still be useful so long as it builds on existing theoretical work and makes theory more, not less, testable. In this study, one of the most promising of the existing models of ethical decision making, Jones' synthesis model (1991), was selected, developed and tested. Detailed justification for the choice of Jones' model is offered in chapter 4. In brief, however, it synthesises all the major theoretical insights into a single model which, by its very nature, lacks detail and is at quite a high level of abstraction. It therefore offered the opportunity for this study to focus on one element of the model, namely ethical judgement, and to develop a more detailed model which can be seen as complementary to Jones' model. While many of the aspects of the model developed for this study would be applicable in many organisational contexts, including the most of the individual and situational factors which are posited to influence ethical judgement, the accountancy context demands that the model be adapted in certain ways to reflect the context. This is essentially to reflect the notion that, in their ethical decision making, accountants have to consider potentially conflicting norms and rules generated from different organisational sources (Gaa, 1992) as discussed in chapter 3. Apart from the aspects of the model which accommodate these different sources of organisational values, it might be applicable to any professional environment. Thus, in the debate about whether ethical decision making for accountants is fundamentally different to that of other individuals in organisations, this research reflects and tests the belief that there is no such fundamental difference.

As explained above the central conceptual focus of the study is ethical judgement. One of the key conceptual issues addressed is what is the appropriate process or basis for ethical judgement. Much theoretical opinion to date has been in favour of the cognitive psychology notion of Cognitive Moral Development as the basis for and explanation of ethical judgement. Other scholars remain convinced that individuals' ethical judgement cannot be explained without reference to their moral philosophical beliefs. This study supports and

tests an alternative view that highlights the role of personal values in ethical judgement. Whilst the main aim of the thesis was not to conduct a direct comparison of the three different ethical judgement bases, it did develop the values perspective theoretically and successfully tested its applicability. Another major conceptual issue inherent in the testing of a model of ethical decision making is the relative weight that various individual and situational factors carry in ethical judgement. A particularly important aspect of this issue considered in the thesis is whether and how ethical decision making changes over time. The dynamic issues have received very little conceptual or empirical attention. This study has attempted to begin exploring them by developing a theoretical model which accommodated the development of dynamic research hypotheses and then by proceeding to test them.

### **9.3 Summary of the fieldwork**

A longitudinal research design was developed in order to facilitate the testing of both cross-sectional and dynamic hypotheses. Three similar surveys were designed and administered over the three year training period between 1994 and 1997 of one particular cohort of England and Wales trainee chartered accountants. They collected socio-demographic data, data concerning subjects' experiences and opinions of their jobs and employers and finally, responses to some ethical dilemma scenarios. The sample consisted of trainees from firms of different size and location and although only 51 subjects responded in all three years, there were 75 subjects responding to the first and third questionnaires, and many more who only responded in one or two years. For cross-sectional hypothesis testing, therefore, the full set of respondents was available for use in each year (ranging from 393 in the first year to 110 in the last). To supplement the collection of quantitative data from the surveys, a series of parallel interviews was conducted with four trainees to coincide with the administration of the questionnaires. Some of the data resulting from these interviews have been used to triangulate and illustrate results of the analysis of the quantitative data.

### **9.4 Empirical evidence presented**

In chapter 4, a model was developed of the ethical judgement of professional accountants. By using this as a framework and by drawing on a wide range of literature about influences on ethical decision making, a number of testable research hypotheses were suggested, some dealing with relationships existing at one period of time and some with relationships across time periods. A number of stages were involved in the testing of these hypotheses. First,

exploratory factor analysis was conducted to allow the exploration of dimensionality in the data and for data reduction purposes. This was covered in chapter 6. Second, univariate and descriptive statistics were calculated and t-tests performed in both chapters 7 and 8. Third, multiple regression analysis was used to estimate the model developed in chapter 4. Analysis of the detail of the results of the regression analysis provided confirmation or otherwise of the hypotheses. This section will summarise the most noteworthy results from each of these stages and it will attempt to highlight their significance.

### *Exploratory factor analysis*

For the purposes of this concluding chapter, there are two important points to note about the exploratory factor analysis conducted in chapter 6. The first is a general point concerning the identification of common factor structures across time periods. A particular challenge unique to the use of exploratory factor analysis in longitudinal research is how to deal with factor structures which vary with time. Using a methodology imported from cross-cultural research which avoided the pitfalls of either crudely over-simplifying the data or limiting the degree of longitudinal comparability, common dimensions or “emergent factors” were identified across different time periods. The second important point to note concerns the results of exploratory factor analysis of the scenario response data. Although both the tax referral and premature audit sign-off case data were unidimensional, analysis of the flammable pyjamas (FP) case revealed two consistent and stable dimensions across the period of the study. These were identifiable as a personal and a professional dimension. Their existence reflects a belief on the part of trainees that, in some circumstances, the profession requires them to act in a way which does not accord with their own personal values.

### *Univariate analysis*

Using paired samples t-tests, the mean scores of all the key variables were examined for significant change over the three year training period. The most noteworthy findings were as follows: In line with expectations that personal values is a relatively stable characteristic, no change was observed over the period. Some of the contextual variables did, however, show significant change. These included an increase in role ambiguity and role conflict, and in the importance of the job characteristic of dealing with others. Commitment to the firm declined very significantly over the training period, as did trainees’ belief in their firms’ support of ethical policies. Perceptions of various forms of power held by firms over trainees also fell over the period.



For the ethical judgement scenarios, no significant change was noted in the audit sign-off case between years 2 and 3 (data was not collected for this scenario in the first year), nor in the personal and conflict dimensions of the FP case from the start to the end of the three years. There was, however, significant change in the professional dimension score and in the mean score for the FP case, both of which had moved in the same direction. The question of whether there were any relationships between the changing situational variables and the changes in ethical judgement could only be addressed using multivariate analysis, the results of which are discussed next

### *Model estimation using multiple regression analysis*

First, the key findings will be summarised before some general comments are made about the strength and value of the estimated models. Two sets of models were estimated, one set with ethical judgement and the other with personal values as the dependent variable. The personal values regressions examined, in more detail, a subset of the relationships included in the overall model, whereas the ethical judgement regression models represented the whole theoretical model. The key findings are as follows:

- Personal values generally, and strength of conviction specifically, was a significant predictor of ethical judgement across scenarios and across time periods. Strength of conviction was a previously-unused formulation of the well-established Rokeach Value Survey (Rokeach, 1968, 1973). As anticipated, high strength of conviction was associated with judgements of a more ethical nature than low strength of conviction.
- Although there were significant changes in the professional dimension and the mean of the FP case, ethical judgement was still a relatively stable construct for all the dimensions across time. The evidence for this derives from the strong predictive power of lagged ethical judgement variables. This finding may be related to the finding that personal values, a very stable construct, is influential in ethical judgement.
- The regression models on personal values in year 3 indicated a strong relationship between organisational and personal values. The organisational socialisation literature reviewed in chapter 3 emphasises the changes in attitudes, values and behaviour which result from socialisation processes. This study has shown that various aspects of personal values are influenced by organisational values at the end of training. The type of organisational values which are influential are mainstream commercial values. A

positive relationship was found between trainees' perceptions of the strength of these values and the strength of various aspects of their own values. Further, the study has presented evidence that suggests that such a relationship did not exist at the start of training.

- There is a debate in the literature about the effects of organisational commitment on ethical decision making. At least one recent study (Shaub et al., 1993) found that neither organisational nor professional commitment were significant in explaining experienced auditors' ethical sensitivity. This study also found no relationship directly between commitment and ethical judgement. It did, however, find first, that firm commitment had declined significantly over the training period and that second, that the change in firm commitment over time moderated the impact of organisational values on personal values. This is an important finding in that it explains first, why commitment may have been found insignificant in previous studies, second, it provides a working hypothesis about the precise nature of the indirect influence of organisational commitment, through personal values, on ethical judgement and third, that its significance may lie in relative changes of commitment over time.
- There is a long-running debate about the role of gender in ethical decision making both in the business ethics literature and in the accounting literature. The key points were discussed in chapter 3, one of which is whether widely-accepted differences in the ethical standards of male and female accountants survive the socialisation process inherent in professional accountancy training. Unexpectedly, this study found that gender was not significant in the ethical judgement regression models in any time period. Gender was, however, found to be a significant influence in the regressions on both the strength of conviction and the differential value ranking index (DVRI) measures of personal values. Further, this influence was present both at the start and the end of the period, supporting the view that ethical gender differences are not mitigated by organisational pressures. The finding that gender impacts on personal values, rather than directly on ethical judgement, may explain the lack of consistency in previous empirical results and why there has been so much debate and uncertainty about gender in the literature.
- Findings of the study also contribute to the debate about the role of the personality construct locus of control. Many scholars have proposed that there is a link between locus of control and either the ethical reasoning process or ethical decision making

outcomes. This study has found that the effect of locus of control directly on ethical judgement (i.e. ethical decision making outcomes) in the scenarios was not significant except in the conflict dimension. In the latter case, consistent with the literature, internal locus of control orientation appears to predispose individuals to perceiving the existence of conflicts between different, conflicting value sets in ethical judgement. The lack of significance of locus of control in the other ethical judgement regression models became more understandable when personal values regression analysis in year 1 and 3 showed that locus of control was highly significant on most aspects of personal values. Similar, therefore, to the gender results, locus of control has an indirect effect on ethical judgement through its interaction with personal values.

- The regression models were also used to illuminate the results of paired samples t-tests on the ethical scenario responses which, as discussed above, revealed that only the professional dimension and the mean of the FP case changed significantly over the training period. The professional dimension did not yield significant regression models in either the first or third time periods. However, by comparing the year one and year three models for the mean of all the responses on the FP scenario, the significant change in which has been caused by changes in the professional dimension items, one can identify regressors which became significant over the period. It is reasonable to expect that these might be associated with the significant change in professional ethical judgement. The first of these is the dummy variable “firm sup”. Increased acceptability was associated with having received formal ethics training by tutors or partners inside the firm in addition to external training e.g. as part of professional exam preparation, or reference material provision. This can be explained with reference to the literature reviewed in chapter 3 which claims that professional ethics training tend to focus heavily on rule following. The strict application of professional rules would, in this case, highlight the need to protect client confidentiality. The second and third variables associated with increased acceptability are high expert power and high role conflict. Both are intuitively reasonable findings since high expert power, concerned with the attribution of superior skills or knowledge to another, and role conflict, the perception (and acceptance) of conflict between internal standards and the defined role behaviour might reasonably be associated with following the rules to protect the client.

This study set out to develop and test a reasonably comprehensive model of one aspect of ethical decision making in the accountancy context. While interesting results have been achieved, one also needs to assess the overall performance of the models in explaining the variability in the data.  $R^2$ s for the cross-sectional ethical judgement models ranged from 5% to 40%, and for the personal values regressions from 14% to 31%. As has been explained in the results chapters, these levels of  $R^2$  compare favourably with other similar, published empirical work and are generally high enough to validate the results discussed above and the hypothesis testing results. Nevertheless, the results do not explain as much of the variance in the data as might have been hoped. This is essentially due to the complexity of the ethical decision making process and to the associated difficulties of measuring the constructs involved. It illustrates an important issue in empirical testing. That is whether attention should be focused on developing comprehensive models which reflect the complexity of “real life”, but which are ultimately untestable, or whether it is better to develop more parsimonious, even simple models which are testable but which yield weak empirical results. An example of this tension is illustrated in another business-related subject, that of consumer buyer behaviour in marketing. Several comprehensive models such as those of Engel et al. (1968) and Howard and Sheth (1969) have been developed which break buyer behaviour down into psychological, social, economic and behavioural variable groups. The promise offered by these models has not been realised (Foxall, 1987) as they have either failed to yield empirically testable hypotheses due to their complex but imprecise conceptualisation, or they have yielded disappointing, fragmentary and partial results. Attempts to develop and test more parsimonious or aggregated models of buyer behaviour which might be of more managerial relevance have, however, also been disappointing. These simpler models have generated research which has tended to focus on individual concepts without adequate integration with other theoretical constructs leading to poor empirical results and a general “disjointedness” in consumer research (Foxall, 1987). It may be that there is an analogy here with ethical decision making research: It may be that comprehensive models are not fully testable such that empirical results will never offer a full explanation of the questions under study, but that testing of simple models is likely to generate partial results which are hard to link together and which do not, therefore, advance the development of knowledge or theory. This study has attempted to find some middle ground between the two extremes by developing and testing only one part of a larger complex model in order to avoid the pitfalls of attempting to cover too much theoretical ground in one study. By exploring the

relationships in this part of the model, rather than testing individual components in isolation, it is the belief of the researcher that some meaningful contribution has been offered.

### *Summary of hypothesis testing*

The results of hypothesis testing are summarised by means of two tables, Tables 9.1 and 9.2. Table 9.1 shows that the cross-sectional hypotheses which were strongly supported concerned the impact of personal values on ethical judgement, the relationship between locus of control and personal values and between organisational values and personal values. A number of other hypotheses concerning the impact of gender and locus of control on ethical judgement were not supported. Instead, the empirical findings of the study suggest that these two variables influence ethical judgement indirectly via their impact on personal values. The hypothesis concerned with the impact of external, job-related pressures was supported but only in a very general sense. More research is required to thoroughly investigate the influence of particular pressures. A number of other cross-sectional hypotheses were not supported or were only weakly supported (for example, at the 10% significance level).

The notion that personal and organisational values become interrelated during the initial years of organisational life was supported, although this result should be considered exploratory because of the use of proxy data, described in section 8.3.2 and elsewhere in this thesis. The hypothesis concerning the increasing influence over time of organisational values on ethical judgement was supported with respect to social responsibility-type values. More mainstream, commercial values were found to influence ethical judgement indirectly through their impact on personal values. The hypothesis that gender differences would be eliminated over time was not supported - they were found to "survive" the socialisation process. The hypothesis that organisational commitment would be built over time was not supported, and in fact, the reverse was found to be true. The second dynamic hypothesis concerned with organisational commitment was supported - the relationship of organisational on personal values was found to be moderated by the extent and direction of change in commitment.

**Table 9.1: Summary of cross-sectional hypothesis testing**

No.	Hypothesis	Results
H <sup>C</sup> 1	Individuals with strongly held personal values will make judgements of a more ethical nature in situations which involve ethical issues than individuals with weakly held personal values.	Supported
H <sup>C</sup> 2	Females will exhibit higher levels of judgement than males.	Not supported, but sex found to influence personal values instead
H <sup>C</sup> 3a	Subjects with internal locus of control are likely to make ethical judgements of a more ethical nature than those with external locus of control	Not supported, but locus of control found to influence personal values instead
H <sup>C</sup> 3b	Subjects with internal locus of control are likely to experience more conflict between personal and organisational aspects of ethical judgement than subjects with external locus of control	Only tested in year 1, but supported
H <sup>C</sup> 3c	Locus of control interacts with personal values to affect ethical behaviour in the following manner: Individuals with internal locus of control orientation are more likely to have strong personal values (and therefore higher levels of ethical judgement - H <sup>C</sup> 1) than external individuals.	Supported
H <sup>C</sup> 4	Ethical judgement is positively related to firms' support of ethics.	Weakly supported
H <sup>C</sup> 5	Firms which have strong organisational values and goals are likely to generate judgements of a more ethical nature than firms with weaker organisational values.	Not supported, but organisational values found to influence personal values
H <sup>C</sup> 6a	An individual's personal strength of conviction about values is positively related to perceived strength of conviction on the part of the organisation about its values and goals.	Supported
H <sup>C</sup> 6b	Self-orientated values are strengthened by perceptions of strong organisational values relating to commercial success.	Supported
H <sup>C</sup> 6c	Other-orientated values will be strengthened by strongly held service-type organisational values.	Not supported
H <sup>C</sup> 7	Individuals with strongly held personal values experience greater conflict between organisational and personal considerations in ethical judgement.	Not supported
H <sup>C</sup> 8	The influence of organisational values over ethical judgement is greater for graduate accountants who are subject to intense socialisation processes than for those who are not.	Not supported
H <sup>C</sup> 9	Ethical judgement is positively related to the extent of non-exam-related ethics training.	Not supported
H <sup>C</sup> 10	The adoption of organisational values in ethical judgement is positively related to commitment to that organisation.	Not supported
H <sup>C</sup> 11	Professional accountants' ethical judgement will be significantly influenced by reinforcement contingencies, particularly negative ones.	Weakly supported in year 1, but not in subsequent years
H <sup>C</sup> 12	The opinions of peers will be significant in ethical judgement, especially where other behavioural cues such as organisational values are weak	Not supported
H <sup>C</sup> 13	Individuals' ethical judgement will be influenced negatively by external pressures of time, scarce resources, and competition.	Supported in a general sense-more research needed

*Table 9.2: Summary of dynamic hypothesis testing*

No.	Hypothesis	Results
H <sup>D</sup> 1	Gender differences in ethical judgement will become less apparent over time as trainees are socialised into organisationally determined norms and roles.	Not supported
H <sup>D</sup> 2	Personal and organisational values become interrelated during the initial years of organisational life.	Supported, but more research needed to validate
H <sup>D</sup> 3	Organisational values will become increasingly influential on graduate trainees' ethical judgement over the training contract period.	Supported in the case of social responsibility values. Commercial values found to be influential on ethical judgement via personal values
H <sup>D</sup> 4	Organisational commitment of graduate accountants increases over the training period.	Not supported. In fact, commitment fell significantly
H <sup>D</sup> 5	The influence of organisational values on personal values at the end of the formal training period is moderated by the extent and direction of change in organisational commitment.	Supported
H <sup>D</sup> 6	The opinions of peers will become less influential with increasing seniority within the firm.	Could not be tested

## 9.5 Implications of the findings

These fall naturally into two categories. The first group are implications primarily for academics concerning the subject of ethical decision making, for model testing and for empirical methodology in business ethics. The second group of implications are for members of the accountancy profession, including professional bodies and partners and managers of firms responsible for training.

### 9.5.1 Academic implications

#### *Implications for the subject of ethical decision making*

The most important implication of this study is that the values basis for ethical judgement is potentially a fruitful area for future research. As has been explained, the vast majority of ethical decision making research has used the concepts of CMD and moral philosophy. While the current study's findings of the significance of personal values do not imply that these other constructs are no longer valid, they may suggest a way in which testing of ethical decision making models can be given some new impetus.

In this research, the personal values construct has been revealed as a relatively stable construct which remains relatively unchanged over time, but which is nevertheless subject to organisational influence. As it is relatively easy to operationalise (compared to CMD and moral philosophy) and it has intuitive resonance with most people (researchers and subjects), it offers an attractive avenue by which researchers can further explore the relationships between the individual and the organisation. According to Robertson (1993. p.589), the latter should be a primary focus of the research agenda in business ethics:

“Testing of models promises to increase understanding of the ways in which individuals make ethical judgements, and should be particularly helpful in specifying the interaction of situational and individual variables in making moral judgements.”

This study has shown that organisational values influence personal values and that personal values are important determinants of ethical judgement. Other findings of this study relating to situational factors such as reinforcement contingencies and role ambiguity and conflict support the view that situational factors, as well as individual factors, have a direct influence on ethical decision making, and that investigation of complete models remains important. This research has therefore started the process of “specifying the interaction” as described by Robertson. By building on the findings of this study, other researchers can continue to reduce the backlog of ethical decision making models which await testing.

There are other implications of the values perspective. If the current study’s results are replicated and validated in other research, then its findings may offer some resolution to the debates about the role of gender and locus of control in ethical decision making. The role of organisational commitment in ethical judgement may also be clarified. The use of values in this research has generated insights concerning these issues which may not have come to light using the other bases for ethical judgement, namely that gender and locus of control have an indirect effect on ethical judgement through personal values and that the significance of commitment in ethical judgement lies in its dynamic effect on the relationship between organisational and personal values. These insights have debate-resolving potential, but first need to be followed up in future research.



### *Implications for model building*

Robertson (1993, p.590) states:

“For empirical work to advance theory, we need studies that are more comprehensive in scope, such as cross-national research and longitudinal studies, as well as replication of studies that presently contribute to our understanding of ethical behavior. ... The challenge is to build broader models of ethical behavior, specifying individual and organizational variables, and taking into account contextual factors.”

It has become clear through the conduct of this research project that, as implied by Robertson in the above quotation, theory building and contribution to knowledge comes through empirical work which is ambitious in terms of its scope. This allows for the exploration of relationships and complexity and, as discussed in section 9.4, avoids the disjointedness which can result from empirical focus on more simple models or bivariate relationships. An important implication of the conduct and results of this study is that there appears to be a direct relationship between research scope, contribution to knowledge and methodological difficulty. A balance must, therefore, be found between parsimony and complexity if real empirical and theoretical progress is to be made. Studies should be designed to be as wide in scope as possible without sacrificing significant amounts of methodological rigour. Further, individual studies need to be located within an overall research programme which consists of systematic and sequential studies on the same topic in order “to yield a systematic creation of knowledge” (Robertson, 1993, p.591). By being part of a research programme, areas in relatively comprehensive studies which are methodologically problematic can be followed up in sequential studies and theory can be amended and developed incrementally.

### *Implications for empirical methodology in business ethics*

The potential complexity of empirical work in business ethics, and the methodological challenges it poses, demands a high degree of rigour. The conduct of the many stages of this study has demonstrated the need for, and hopefully has achieved, such thoroughness and rigour. From the clarification of the normative implications of the choice of research topic, through the specification of paradigm and research methodology, and exploration of the possibility of bias, to the application of data analysis techniques, clarity is required in order that the contribution to knowledge can be assessed. This is an important implication of this, a complex, longitudinal project.

Chapter 5 reviewed the debate concerning the interface between normative and empirical business ethics. Although most scholars agree that it is important to make explicit the normative assumptions which underlie empirical work, there is some disagreement about whether normative analysis must necessarily precede empirical analysis in order to ascertain what, in any given situation, represents ethical (in the normative sense) behaviour or outcomes. The results of this study imply that, as suggested by Robertson (1993, p. 587), it is possible to merge empirical and normative research by “identify[ing] the ethical dimension of transactions at the same time that the organisational conditions under which they take place are examined”. Through the use of a multidimensional scenario response scale based on normative moral philosophy, this study has attempted to do just this, and can confirm that it is difficult but rewarding.

Other methodological implications of the study include an observation concerning the value of longitudinal research. Comparisons over time have yielded some very interesting perspectives in this study, and it is concluded that the cost in terms of time and effort have been repaid in terms of the increased scope and contribution of the study. The interactionist perspective/methodology has also been validated in this research, in particular by the results on commitment.

### **9.5.2 Implications for the accountancy profession**

As discussed above, some of the study’s central findings concern the importance of personal values in ethical judgement. With a view to maintaining and improving ethical standards in the profession, the results of this study imply that firms should be aware of the importance of personal values in recruitment. Literature reviewed in chapter 3 suggests that ethical awareness may already be a factor in recruitment decisions in the accountancy profession. This study implies that firms should focus specifically on personal values, rather than trying to assess whether potential recruits are aware of accountancy-specific ethical issues. The traditional approach of taking references which request information on the integrity of applicants may need to be supplemented with appropriate discussions at interview and/or psychometric testing.

Results presented in this study indicate that organisational values, particularly commercial values, influence personal values over the training period. This result would probably not be surprising to most partners and managers. Nevertheless, the finding that organisational

values have a role in the development of individuals implies that firms have a responsibility to ensure that appropriate values are being transmitted. For many organisations, this is a difficult task because the value set is often deep-rooted in the myths, metaphors and culture of the organisation. Firms might well make those values explicit, through such means as “values audits” in order to address any areas of conflict which exist<sup>1</sup>.

Another important implication of this study concerns the findings on organisational commitment. Results showed that commitment to the firm fell quite drastically across the sample, irrespective of career intentions. This implies that there is something about the experience of training as a chartered accountant which causes trainees to become increasingly unsure and disillusioned about the benefits of membership of their employing firms. Since the study of commitment *per se* was not an aim of this study, the issue of what has caused the drop in commitment has not been explored. Its ethical impact, however, has. As noted in chapter 8, the finding that change in commitment moderates the impact of organisational values on personal values combined with the finding of falling levels of commitment might be taken to imply that training firms struggle to retain, at the end of the formal training period, even a subgroup of well-motivated individuals who are committed to the values of the organisation and of the profession.

A final set of implications concerns the role of training in the accountancy profession in shaping the ethical attitudes of trainees. These have been discussed at length, and recommendations made in an ICAEW monograph (Hull et al., 1999 forthcoming). A summary is included in the remainder of this section. Information collected in this study supports the view prevalent in the UK accounting literature that professional ethics training tends to focus on rule-following, and does not develop trainees’ analytical ethical reasoning abilities. The support for this statement arises from two sources. The first follows from data collected about training methods from the questionnaire respondents and from interviewees. An analysis of the information provided in section 7.2.1 suggests that the main *formal* professional ethics training input is exam-based and that many trainees received no non-exam-related formal training. The majority of trainees also indicated that they received *on-the-job guidance* in ethics. It seems fairly clear, however, that trainees do not receive training which specifically attempts to develop their ethical reasoning skills. Instead, their written descriptions of on-the-job guidance, supported by observations

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<sup>1</sup> Areas of ethical conflict inherent in professional accountancy practice are discussed at length in chapter 3.

made by interview subjects, indicate that it comprises a requirement-driven rule-following approach, with a focus on client service, as is illustrated by the quotation given in section 8.2.2 which demonstrated one interviewee's shift of emphasis from the role of ethics in safeguarding investors at the start of training to safeguarding clients by the end of training. The client service ethical focus has been noted in another recent study (ICAEW, 1998) examining the socialisation, career progress and attitudes of a group of Big Six trainees. The authors of the study note that accountancy trainees "relate most strongly to an ethic of client service rather than public service" (ICAEW, 1998, p. 6).

The second source of support for the rule-following thesis derives from subjects' responses to the flammable pyjamas (FP) scenario used in this study. These results, discussed in section 8.2.2, suggest an increased awareness of professional ethics at the same time as an increasing dissonance/conflict between personal and professional judgements of the case. This indicates that the combination of training, socialisation and work experience has strengthened trainees' convictions as to what the profession requires, but that it has not provided any assistance in the resolution of the conflict. If trainees had received the sort of effective ethics training discussed in section 3.4.2, one might expect to see the gap becoming smaller as trainees moved towards resolution of the conflict in their own minds by reference to an overall ethics framework incorporating personal and professional notions. Evidence of such a development in ethical reasoning skills and a reduction in "moral stress" (Waters and Bird, 1987) might be shown in movement of the personal ethics judgement of the case to bring it into line with professional judgement. As it is, there is a general lack of evidence in the current study that training develops individuals' abilities to deal with complex ethical issues which is consistent with the highly critical literature about ethics training in the UK profession. Hypothesis H<sup>C</sup>10 which dealt with training was not supported and the only real insight into the significance of training was found in the comparison, discussed in section 9.4 above, of the third year regressions on the profession dimension and the mean of the FP case. The change in the professional dimension mean was associated with having received formal ethics training by tutors or partners inside the firm in addition to external training. As already explained, this is consistent with the rule-following thesis. The support in this thesis for the rule-following thesis also resonates with Coffey's (1993) observation that graduate accountancy training 'trains for certainty rather than uncertainty', as is typical of other professional socialisation programmes. It, therefore, does not equip trainees to 'deal with the uncertainties of the accounting

profession', one of Loeb's seven goals of accounting ethics education (1988, discussed in chapter 3).

Despite this rather sobering and critical discussion, it must be recalled that research exploring the impact of ethics-based courses on students' ethical reasoning and decision making has generally been positive, as discussed in section 3.4.2. Green and Weber's (1997) recent US study concludes that auditing courses emphasizing the "spirit" of the AICPA Code of Conduct can have a positive impact on ethical behaviour. There is also a significant body of literature, the relevant part of which was reviewed in chapter 3, which examines the problems of teaching ethics and suggests solutions to them. This literature covers the identification of specific goals for accounting ethics education, recognition of issues in accounting which have ethical implications, the development of a sense of moral obligation or responsibility, and the development of abilities needed to deal with ethical conflicts and with the uncertainties of the accountancy profession. Of the main modes of operationalising these goals, namely lectures, case discussions and role play, Loeb (1988, pp. 323-324) considers lectures to be least effective, enabling only a subset of the goals to be achieved, whereas case studies and role play have the potential to achieve all the goals. Case study involving ethics allows students to increase their understanding of and empathy with situations (Baum, 1980) and gives practice of thinking in ethical terms (Mai-Dalton, 1987). Recently, Kuhn (1998) has argued that role play and classroom "games" are more effective than case analysis in business ethics education in general, since it promotes emotional involvement as well as intellectual engagement. He argues that such involvement is needed to allow students to expose and discuss the assumed neutral, value-free approach to business with which they are familiar. Other issues discussed in the literature include whether and how the outcomes of accounting ethics education should be assessed (Loeb, 1991) and who should do the teaching (Loeb, 1988; McDonald and Donleavy, 1995). The latter reflects concerns about the ability of professional accountants to teach ethics, illustrated by the following from Grimstad (1964, p. 84):

"To teach ethics it is necessary to have a historical perspective, a broad understanding of societal forces and a philosophical orientation. The accounting teacher, who in his own educational background and professional training may not have acquired these outlooks, is not likely to explore the "whys" of ethical standards or to question their validity".

In order for these and other complex pedagogical issues to be explored in more detail, consideration needs to be given to the development of a strategy to adapt training requirements

so as to ensure the ethical development of trainees. This study recommends that a consultation process be undertaken to bring together the views of the ICAEW's Training and Education department with those of business ethicists, professional trainers and academics. This process should be underpinned by academic research into the efficacy and impact of ethics training interventions.

In summary, the findings of this study have resulted in a number of implications and recommendations for academics, professional accountants and accounting trainers. These implications have been made on the basis that the findings are generalisable. However, a single study will always have limitations on its generalisability. In the next section, the limitations of the study, including specific limitations on generalisability, are drawn to the attention of the reader.

## **9.6 Research limitations**

It is recognised that this study has some limitations in the way it has been conducted. These may have implications for the generalisability of the findings. This section will attempt to make the weaknesses of the study explicit in order to facilitate the reader's assessment of the importance of the study's contribution to knowledge. The specification of research limitations can also help identify possibilities for further research. The criticisms levelled by qualitative researchers at quantitative business ethics have already been discussed at length in chapter 5. They are not reconsidered here. Rather, this section focuses on criticisms of the detailed approach taken in the study and on the limitations to its contribution to the ethical decision making literature.

### *Conduct of the research*

It could be argued that the sample size achieved in the study was inadequate, especially the longitudinal panel of only 51 subjects. The latter was due to drop-out over time. As discussed in section 6.3.2, however, a small sample size presents major problems in as much as it is indicative of non-response bias. This possibility was thoroughly investigated in chapter 6, and it was concluded that although significant drop-out is a common problem in longitudinal research, in this case, there is no evidence that it has generated serious bias in the data. Further problems associated with small sample size are concerned with the valid use of various statistical techniques. This issue was considered in detail in section 7.3.1.2

where the role of sample size in determining statistical power was discussed. It was concluded that sample size does not cause a major problem in this study.

A practical challenge to any researcher designing a survey is to include in it as many reliable and valid measurement scales as are required to facilitate the answering of the research questions in a way that does not jeopardise response rates. There were two main issues relating to questionnaire design in this study. The first was the limitation on questionnaire length, dealt with next, and the second concerned the valid and reliable measurement of socialisation, addressed on page 315. The scope and subject of this study called for the inclusion of a relatively large number of multi-item scales in the questionnaires. Inevitably, decisions had to be made about priorities after it was decided, on the basis of pilot testing, that the maximum tolerable length of questionnaire was 6 sides of A4. In a longitudinal doctoral research project, this presented early challenges to the “trainee” researcher. With the benefit of hindsight, it would appear that not many crucial mistakes were made. There were, however, a small number of misjudgements which mainly affected the generation or strengthening of results from the study. These misjudgements involved including a scale which did not prove useful in subsequent data analysis, at the cost of the exclusion of another scale which would have been useful. In particular, it would have been helpful, given the central importance of personal values, to include it in year 2 in addition to years 1 and 3. Also, the inclusion of the organisational values measurement scale in the first year would have made dynamic testing easier. Also, locus of control was only included in the second year. Although the effect has been to make some of the dynamic testing results somewhat exploratory, none of the exclusions created major, insurmountable problems. Due to the relative stability, for instance, of locus of control and personal values over time, some analysis was possible using another year’s data as a proxy for the current year. While the lack of first year organisational values data prevented certain types of analysis, such as their inclusion in the first year personal values regressions and the analysis of change over the whole training period of perceptions of organisational values, it did not prevent the generation of other noteworthy results concerning organisational values such as are highlighted in section 9.4 above. Finally, inclusion of the well-established Defining Issue Test (DIT) measure of Cognitive Moral Development, although not central to the aims of the thesis, could have provided a useful comparison to the values data in seeking to explain ethical judgement. Initially, its inclusion was considered, and as a result of pilot testing (which revealed problems with length and comprehensibility), a much reduced version of the

DIT was included in the first questionnaire (at the expense of the organisational values scale). Initial analysis of the resulting data quickly revealed that the reduced scale was lacking in reliability and validity and it was subsequently replaced by the measure organisational values.

A particularly important consequence of the restricted questionnaire space was a limitation on the number of scenarios which could be used. A judgement was made concerning the balance between space for the scenarios (and their multi-dimensional response scale) and the individual and situational data thought to be important for the explanation of ethical judgement. Two scenarios were included. In some ethical decision making research, it has been suggested that it is not ideal to rely on a small number of scenarios. This point is accepted. As has been discussed before in this thesis, however, this research represents a balance between methodological purity (more scenarios) and pragmatism in the form of a realisation that to test a relatively comprehensive model, considerable "explanatory" data was required, the collection of which effectively ruled out the inclusion of further scenarios.

The second limitation arising from questionnaire design lies in the measurement of the socialisation construct. There were no previous empirical research studies to which the researcher could turn for pre-validated scales as investigation of organisational socialisation of graduate accountants has been conducted exclusively by qualitative scholars. For this study, an attempt was made to use the qualitative research to generate an empirical scale. While exploratory analysis of the data it yielded was promising, the socialisation measures were not fruitful in subsequent data analysis. It is not clear whether this is as a result of deficiencies in the scale or due to the actual irrelevance of the socialisation phenomenon in the explanation of ethical judgement. Based on the persuasiveness and intuitive resonance of the socialisation literature, the researcher suspects that the former is true. It may well be theoretically possible to construct an empirical device to capture the essence of the socialisation process. It seems likely that this study has failed to do so. Its failure is probably associated with the nature of socialisation. Namely, it is a process which operates at a deep-rooted, subconscious level both at the organisational and the individual level. Because of this, it is perhaps more sensible that socialisation research be left to qualitative researchers whose methods allow them to consider the data in a much more interpretative fashion than an empirical researcher can. This is not to say that socialisation is ignored in the current study. The finding that personal values are influenced by organisational values in the



year 3 regressions shows that organisational forces have deep and powerful effects on individuals, the main premise of the socialisation literature. This study has, however, stopped short of offering any explanation of the process of socialisation.

#### *Position and contribution to ethical decision making literature*

There are a number of factors in this study which may be considered to limit the generalisability of the research and the importance of its contribution to the literature. These are discussed in the remainder of this section.

There are a number of possible contextual limitations to the study arising from the choice of subject group to study. The first concerns the choice of trainees rather than experienced professionals. This clearly means that the findings cannot be generalised to all professional accountants. This was, however, never an aim of the study: The extent of scholarly interest in trainees (reviewed in chapter 3) was regarded as sufficient grounds to accept the restricted scope of the research. Second, the study used trainee *chartered* accountants studying for ultimate membership of the ICAEW as its population. As has already been mentioned, there is also a significant number of graduates choosing to enter the accountancy profession through different routes (e.g. CIMA) and to train under the auspices of other professional bodies (e.g. ACCA, CIPFA). Strictly speaking, therefore, this study may not be considered generalisable to the whole population of graduate accounting trainees. As can be seen from Table 6.4, nearly 4000 graduates began ICAEW training in 1994, and the number has increased since then. Further, it is widely accepted that ICAEW training firms recruit a large proportion of the brightest university graduates, many of whom progress to senior and influential management positions in industry and commerce through the chartered accountancy route. Therefore, due to the still significant number of graduates entering ICAEW training, and due to their influence in business, the limitation of the scope of the study is considered justified and its results still useful even if one accepts that it lacks strict generalisability to other graduate accountants. To the extent, however, that the experience of graduate trainee chartered accountants is representative of the experience of other trainee professionals e.g. accountants, lawyers, the findings of the study may indeed be more widely generalisable. The contribution of the study, however, does not lie in such claims.

There is a limitation on the study's contribution to the ethical decision making literature in terms of areas which were underexplored in the research. The nature of the findings on some

of the situational variables are promising, but are too vague to allow the drawing of conclusions or the generation of working hypotheses. In particular, although there were a number of interesting findings concerning role ambiguity and conflict, the precise effect on ethical judgement of these variables and others such as job characteristics and peer group opinion were not sufficiently clear. One possible explanation is that the study was perhaps over ambitious in trying to discern the effects of too many factors on ethical judgement, leading to the fragmentation of significance. Another explanation is that specific situational influences are significantly less powerful, and therefore discernible, than more general constructs such as personal and organisational values in influencing ethical judgement. It is considered that some combination of the two explanations is most likely. However, despite the lack of detailed conclusions on some of situational variables, the main results of the study, discussed above, are still considered by the researcher to represent a substantial contribution to the ethical decision making literature.

A final limitation of the study is that it does not treat behaviour as the key dependent variable, as recommended by Robertson (1993) and other influential business ethics scholars. Rather it deliberately attempts to explore the ethical judgement stage of the ethical decision making process. As can be seen clearly in Figure 4.1, there are two further stages after moral judgement, the intentions and behaviour stages. It is accepted that, ideally, research should be conducted mainly on the final stage as there are many uncertainties concerning the relationships between judgement, intentions and behaviour (see Blasi, 1980 for a review of the issues). As Robertson (1993) explains, however, the study of ethical behaviour, as opposed to attitudes, judgements, and intentions, in business has been beset by extreme methodological difficulties associated with measuring very sensitive issues. The lack of established techniques to deal with these problems explains the very small number of studies specifically addressing the issue of behaviour. Robertson suggests that guidance needs to be taken from fields such as criminology in developing research methods that are suitable to the study of actual behaviour. This is clearly an area for future research. As far as the current study is concerned, it is noted that its scope is limited to the extent that ethical judgement does not translate or follow through into behaviour. However, as is noted in chapter 4, moral judgement forms the core of the ethical decision making process and, as such, it merits scholarly study. Furthermore it is argued that the results and insights generated from the study justify its choice of focus.

## **9.7 Opportunities for future research**

It is received wisdom that most research studies will generate more questions than answers. Rather than being perceived as a weakness, however, this represents the nature of the process of the expansion of knowledge. This section suggests a number, although not all, of the questions raised by this study on which future research could focus.

- This study has developed and tested one stage of Jones' (1991) synthesis model of ethical decision making, the ethical judgement stage. Future research should examine the other stages of recognition, intentions and behaviour, considering in particular, the role of personal and organisational values in each. As discussed in this thesis, it would be very difficult if not impossible to conduct an empirical examination of the whole model in a single study. It is hoped that a programme of individual studies with broadly agreed aims can, however, advance knowledge of ethical decision making in organisations incrementally.
- This study has focused on the personal values basis for ethical judgement. More direct comparisons, similar to Carlson and Kacmar's (1997), of the different bases of ethical judgement are needed to specify how they are related, and in which contexts they are most useful. More work is also needed on the alternative ways to operationalise personal values. For instance, this study has used a new variable, the strength of conviction index (SOCI), derived from the well-established Rokeach Value Survey. It proved very useful in this study, but although the RVS has been repeatedly demonstrated to be reliable and valid, further work needs to be done to establish the applicability of the SOCI in a range of contexts.
- More detailed examination of the interaction of organisational and personal values is needed, across different types of organisations. The results of this study have shown that the two become related when individuals enter firms, and have suggested that commercial values are more influential than social responsibility-type values. There are questions concerning whether different types of organisational values are relatively more or less important dependent upon the context e.g. different types and sizes of organisation, different types of profession, different lengths of training/socialisation time, etc.

- An important finding of this study was that the significance of locus of control and gender lies in their effect on personal values rather than directly on ethical judgement. This finding needs to be validated by other researchers before it can be said to contribute to the debates on gender and locus of control in the literature. Similarly, further research is needed on the moderating effect of change in commitment on the organisational-personal values relationship found in this study.
- As discussed in the previous section, this study has been relatively unsuccessful in empirically exploring the role of professional and organisational socialisation in the change in ethical attitudes. This was mainly due to the lack of established measurement scales for socialisation. Future research could focus on the development of such measures.
- Detailed examination of the effects of particular job traits and characteristics such as role ambiguity, role conflict and job variety on ethical decision making is needed . Initially, this research could take the form of exploration of bivariate relationships. Some such studies have already been conducted, as reference to Table 2.2 demonstrates. There is more detailed work to be done, however, to examine the variables which the current study has suggested may be influential. These can then be built into models of ethical decision making, ultimately by replacing the general category of situational variables.
- As discussed in the previous section, there are considerable methodological difficulties associated with using “traditional” survey techniques to measure actual ethical behaviour as opposed to judgements or intentions. These are mostly related to subjects’ unwillingness to cast themselves in an unfavourable light. To a certain extent these problems can occur in any type of study dealing with issues which have an ethical dimension, but it tends to be more pronounced, and therefore more difficult to deal with, in studies of behaviour. It has been suggested (e.g. by Gibson and Frakes, 1990; Randall and Gibson, 1990; Robertson, 1993) that techniques such as RRT, factorial survey design and experimental research designs can help overcome these problems. Factorial survey design, for instance, has been shown to be successful in investigating sensitive subjects (see Robertson, 1993, for citations), and allows researchers to explore complexity more thoroughly than traditional methods. By using factorial survey design to manipulate variables within scenarios, researchers can better understand the different dimensions of a scenario and their effect on ethical behaviour. As noted by Robertson, this is well

suiting to studies of Jones' moral intensity construct. The main problem, however, with factorial survey design and with RRT is that they require high sample sizes, which can be difficult to obtain in practice.

- As mentioned earlier in this chapter, one of the limitations of this study is that it only included trainee chartered accountants. There is clearly scope for replication of this type of study using other trainees (e.g. CIMA, CIPFA) as subjects. The study of the role and importance of personal and organisational values in accountants' ethical decision making could also usefully be extended to post-qualified accountants at all ranks within professional accountancy firms.
- As discussed in chapter 3, the ICAEW has recently introduced new ethics training measures. These need to be monitored and their efficacy assessed, especially given the concerns over their likely effectiveness.

## 9.8 Conclusion

The study was initially motivated by the researcher's personal concern that the experience of training to be a qualified professional accountancy fails to develop, and perhaps even hinders or prevents, the development of individuals' ethical sensitivity and reasoning ability. In Ponemon's words, "the ethical culture of the accountancy firm stymies an individual's [ethical] development" (Ponemon, 1992, p. 239). Coffey (1993) found in her study of trainee chartered accountants that there was a loss of idealism and an increase in cynicism which occurred as trainees devised pragmatic strategies to "get through" the ordeal of their training<sup>1</sup>. The loss of idealism and the development of pragmatic, cynical responses to problems, including those relating to ethics, certainly does not seem consistent with, or supportive of ethical development. At the same time, as supported by evidence presented in this study, trainees are encouraged to develop a rule-following approach to professional ethics. This combination of lack of support for personal ethical development and indoctrination of a rigid and undiscussable approach to difficult issues goes some way towards explaining the high degree of "moral stress" experienced by this researcher during her own period of professional accountancy training.

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<sup>1</sup> The notion that ideals are set aside in professional training has a strong theoretical precedent (e.g. Becker et al., 1961; Power, 1991).

## *Appendix 1: The questionnaires*

The three questionnaires used in this study are reproduced as they appeared to subjects in the next 21 pages. Each questionnaire was 6 pages long.

*First year questionnaire*

This questionnaire is concerned with the ethical attitudes of trainee Chartered Accountants and is being completed by trainees in 140 training offices around the country. We would be very grateful if you could spare about 20 minutes of your time to complete it. Please return it in the reply paid envelope unless instructed otherwise by your firm. The study concerns changes in attitudes during the training process; you will receive a similar questionnaire annually during your Training Contract. It is most important that you complete it each year. PLEASE NOTE THAT NO INDIVIDUALS OR FIRMS WILL BE SINGLED OUT IN THE RESULTS, AND THAT YOUR PARTNERS AND MANAGERS WILL NOT BE IDENTIFYING YOU WITH YOUR QUESTIONNAIRE RESPONSES. There are no right or wrong answers; please be as honest as possible. Thank you for your cooperation. If you have any queries or would like to know more about this research, please contact Alison Hull at the University of Nottingham, Tel: 0115 951 5268.

**Please tell us a bit about yourself:**

*Are you:* 1. Male 2. Female

*Are you:* 1. Single 2. Married 3. Separated 4. Divorced 5. Living together

*How many years have you spent in full-time education after A-Levels or equivalent?* \_\_\_\_\_

*In which faculty was the main subject of your degree:*

1. Arts & Humanities 2. Sciences 3. Engineering 4. Social Sciences

*How many years of full-time employment have you had prior to joining your current firm?* \_\_\_\_\_

*Where are you from?* 1. UK 2. Europe 3. U.S.A./Canada 4. Far East

5. Other (please specify) \_\_\_\_\_

*What type of school or college did you attend immediately prior to university?*

1. State school/college 2. Fee-paying private school/college

*How would you describe the occupation of the main earner in your family (i.e. mother or father)?*

1. Professional 2. Senior management 3. Middle management  
4. Supervisory or clerical 5. Skilled manual 6. Semi- and unskilled manual

*Please indicate the approximate number of hours training or teaching in professional ethics i.e. integrity, confidentiality, etc. that you have had since joining your current firm:*

1. 1-5 hours 2. 6-10 hours 3. More than 10 hours 4. Don't know 5. None

*Have you ever studied ethics before joining your current firm?* 1. Yes 2. No

*Have you ever studied business ethics before joining your current firm?* 1. Yes 2. No





Listed below are 10 values. Please tick (✓) the relevant box to indicate their importance to YOU, as guiding principles in YOUR life generally, not just in the context of your work. It is important that you tick a box for every item.

		Very Important					Very Unimportant
1	A sense of accomplishment (i.e. a lasting contribution)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Equality (i.e. brotherhood, equal opportunity for all)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Family security (i.e. taking care of loved ones)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Freedom (i.e. independence, free choice)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Inner harmony (i.e. peace of mind, freedom from inner conflict)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Pleasure (i.e. an enjoyable, leisurely life)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Salvation (i.e. saved, eternal life)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Self-respect (i.e. self-esteem)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Social recognition (i.e. respect, admiration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Wisdom (i.e. a mature understanding of life)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This part of the questionnaire aims to find out the way in which certain important events in our society affect different people. Each item consists of a pair of alternatives lettered a or b. Please select the one statement of each pair (*and only one*) which you more strongly believe to be the case as far as you're concerned. Then circle the relevant letter, a or b. This is a measure of personal belief; there are no right or wrong answers. Please answer the items carefully, making sure to make a choice for every one, but do not spend too much time on any one item. Try to answer each item independently of your answers to previous items. You may discover that you believe both statements or neither one. In such cases, be sure to select the *one* you believe more strongly.

- 1
  - a Many of the unhappy things in people's lives are partly due to bad luck.
  - b People's misfortunes result from the mistakes they make.
- 2
  - a In the long run people get the respect they deserve in this world.
  - b Unfortunately, an individual's worth often passes unrecognized no matter how hard s/he tries.
- 3
  - a Without the right breaks, one cannot be an effective leader.
  - b Capable people who fail to become leaders have not taken advantage of their opportunities.
- 4
  - a No matter how hard you try some people just don't like you.
  - b People who can't get others to like them don't understand how to get along with others.
- 5
  - a I have often found that what is going to happen will happen.
  - b Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
- 6
  - a In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
  - b Many times exam questions tend to be so unrelated to course work that studying is really useless.
- 7
  - a Becoming a success is a matter of hard work and luck has little or nothing to do with it.
  - b Getting a good job depends mainly on being in the right place at the right time.
- 8
  - a When I make plans I am almost certain that I can make them work.
  - b It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
- 9
  - a In the long run the bad things that happen to us are balanced by the good ones.
  - b Most misfortunes are the result of lack of ability, ignorance, laziness or all three.
- 10
  - a What happens to me is my own doing.
  - b Sometimes I feel that I don't have enough control over the direction my life is taking.

Please tick (✓) the relevant box to indicate the extent to which you agree or disagree with the following statements:

	Strongly Agree	Strongly Disagree
If I do not comply with managers and partners in the firm I will not be rewarded eg. with extra salary or appropriate career development.	<input type="checkbox"/>	<input type="checkbox"/>
I want to do as the managers and partners suggest because of the good things they will give me for complying eg. a good name in the firm, salary rise, exam funding, etc.	<input type="checkbox"/>	<input type="checkbox"/>
In general the opinions and values of the managers and seniors-in-charge are similar to mine.	<input type="checkbox"/>	<input type="checkbox"/>
Being similar to my managers in my opinions and values is good.	<input type="checkbox"/>	<input type="checkbox"/>
Partners and managers can harm me in some way if I do not do as they wish.	<input type="checkbox"/>	<input type="checkbox"/>
If I do not do as staff senior to me in the firm tell me, they may hinder my career development or salary prospects.	<input type="checkbox"/>	<input type="checkbox"/>
Something bad will happen to me if I don't do as the manager on a job requests and he finds out.	<input type="checkbox"/>	<input type="checkbox"/>
I trust the judgement of managers and partners in this firm.	<input type="checkbox"/>	<input type="checkbox"/>
On an audit issue, the manager's expertise makes him/her more likely to be right.	<input type="checkbox"/>	<input type="checkbox"/>
It is my duty to comply with managers and partners in the firm.	<input type="checkbox"/>	<input type="checkbox"/>
Because of the partners' positions they have the right to influence my behaviour.	<input type="checkbox"/>	<input type="checkbox"/>

Please tick (✓) the relevant box to indicate how true you think the following statements about your work are:

	Very True	Very False
I have enough time to complete my work.	<input type="checkbox"/>	<input type="checkbox"/>
I feel certain about how much authority I do or do not have.	<input type="checkbox"/>	<input type="checkbox"/>
There are clear, planned goals and objectives for my job.	<input type="checkbox"/>	<input type="checkbox"/>
I sometimes have to do things that I believe should be done differently.	<input type="checkbox"/>	<input type="checkbox"/>
Generally, I know that I have divided my time appropriately in my job.	<input type="checkbox"/>	<input type="checkbox"/>
I sometimes have to bend a rule/policy in order to carry out an assignment.	<input type="checkbox"/>	<input type="checkbox"/>
I work with two or more groups who operate quite differently.	<input type="checkbox"/>	<input type="checkbox"/>
I know exactly what is expected of me.	<input type="checkbox"/>	<input type="checkbox"/>
I do things that are apt to be accepted by one person and not accepted by another.	<input type="checkbox"/>	<input type="checkbox"/>
I receive an assignment without adequate resources and materials to execute it.	<input type="checkbox"/>	<input type="checkbox"/>
Explanations of what has to be done in my job are clear.	<input type="checkbox"/>	<input type="checkbox"/>
I take account of the opinions of my peer group when deciding how to carry out my job.	<input type="checkbox"/>	<input type="checkbox"/>
I work on unnecessary things.	<input type="checkbox"/>	<input type="checkbox"/>

Please answer the following questions about your job by ticking (✓) the relevant box as before:

Very much Very little

How much variety is there in your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much are you left on your own to do your own work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often do you see projects or jobs through to completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you find out how well you are doing on the job as you are working?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much opportunity is there in your job to meet individuals with whom you would like to develop friendships?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you aware of ethical issues when performing your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much of your job depends on your ability to work with others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much of your job depends on your ability to take account of the perspectives of others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How repetitious are your duties?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much do you enjoy your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you able to act independently of your supervisor in performing your job function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you receive information from your superior on your job performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you have the opportunity to talk informally with other employees while at work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent is dealing with other people a part of your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you have the opportunity to do a job from beginning to end?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you feel satisfied with the security your job provides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you satisfied with your salary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you feel in control of the events of your life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you were faced with a general moral dilemma *eg. stealing from someone who was very rich (and who wouldn't notice the difference) in order to save the life of a loved one*, to what extent would the outcome of your decision depend on the following:

Not at all Very much

What is in my own best interests.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is in the best interests of my friends/family.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What is acceptable to my peers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What the law requires.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What society would think if all the details of the dilemma were known.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Whether some overall good justifies doing something wrong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What satisfies basic human rights, even if it means breaking the law.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In this section there are 2 mini-case studies concerning issues facing accountants/auditors. Please respond to the 2 case studies. For each of the statements, please tick the relevant box to indicate what you think about the behaviour of the accountant/auditor in each case. For example, if you think the behaviour described was slightly unacceptable you might reply as follows:

Acceptable        Unacceptable

### Case 1

Mr. A is the independent auditor of Blue Plc., a clothing manufacturer. Two years ago, it was discovered that a new line of children's pyjamas made by Blue Plc. were highly flammable. Blue Plc. recalled all of the pyjamas, and suffered a major loss. While conducting the current annual audit, Mr. A became aware that the company was selling the flammable pyjamas in a South American country, where there are no safety regulations to worry about. After the audit was completed, Mr. A considered making an anonymous phone call to the local newspaper to inform them of Blue Plc.'s actions. After considerable thought, however, he decided not to make the call.

What is your view of Mr. A's actions in not making the call?

Acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable
Morally right	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not morally right
Acceptable to your family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable to your family
In the best interests of Mr. A's firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not in the best interests of his firm
Socially responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Socially irresponsible
Professionally acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Professionally unacceptable
He was obliged to act in this way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	He was not obliged to act in this way

### Case 2

Mrs. B has been the independent auditor of Red Ltd., a small company, for many years. Red Ltd. has continued to expand over the years and the Financial Director is beginning to think that the company would benefit from some professional tax advice, and mentions this to Mrs. B during the annual audit. Mrs. B offers her firm's services in this respect and hints at a 30% reduction in the audit fee next year. At the same time she asks the Financial Director and the Managing Director out to dinner at a smart restaurant. At the dinner Mrs. B gives the FD and the MD each a small gift of a gold-plated fountain pen.

What is your view of Mrs. B's conduct?:

Acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable
Morally right	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not morally right
Acceptable to your family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable to your family
In the best interests of Mrs. B's firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not in the best interests of her firm
Socially responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Socially irresponsible
Professionally acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Professionally unacceptable
She was obliged to act in this way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	She was not obliged to act in this way

**THANK YOU VERY MUCH FOR YOUR TIME**

*Second year questionnaire*

This questionnaire is the second in a series of questionnaires concerned with the ethical attitudes of trainee Chartered Accountants and is being completed by trainees in 140 training offices around the country. We would be very grateful if you could spare about 20 minutes of your time to complete it whether or not you completed one 18 months ago. Please return it in the reply paid envelope unless instructed otherwise by your firm. The study concerns changes in attitudes during the training process; you will receive a similar questionnaire at the end of your Training Contract. It is most important that you complete it each year. PLEASE NOTE THAT NO INDIVIDUALS OR FIRMS WILL BE SINGLED OUT IN THE RESULTS, AND THAT YOUR PARTNERS AND MANAGERS WILL NOT BE IDENTIFYING YOU WITH YOUR QUESTIONNAIRE RESPONSES. There are no right or wrong answers; please be as honest as possible. Thank you for your cooperation. If you have any queries or would like to know more about this research, please contact Alison Hull at the University of Nottingham, Tel: 0115 951 5268.

**Please tell us a bit about yourself:**

Are you:            1. Male            2. Female

*Please give the following information for identification purposes. This is needed only so that we can match your responses this year with those you give next year (and those you gave last year) while retaining anonymity:*

Please give your date of birth            \_\_\_\_/\_\_\_\_/\_\_\_\_

Please give your town or city of birth            \_\_\_\_\_

*Please indicate your status regarding Professional Exams:*

1. Exempt/fully relevant degree            2. Partially exempt            3. No exemptions

Have you sat Intermediate Exams:            1. Yes            2. No

If no, please indicate when you will sit:.....

If yes, what was the result:            1. Pass            2. Refer            3. Fail

When will you resit:.....

*Please indicate the approximate number of non-exam related days of training provided by your firm since you joined, and the areas covered:*

	<u>No. of days</u>
Auditing	.....
Taxation	.....
Time management	.....
Professional ethics ie. integrity, confidentiality, etc.	.....
Other - please specify .....	.....

*Please indicate how important you believe professional ethics to be in the accountancy profession:*

Very Important                              Very Unimportant

*Please tell us how much guidance and/or training in professional ethics you have received since joining:*

1. None            2. Not enough            3. About the right amount            4. A bit too much            5. Too much





How many other graduates joined your firm at the same time as you? .....

*If none, please move on to the next page.*

Your fellow joiners will be referred to as "the group". Please tick the relevant box to indicate the extent to which you agree with the following statements:

	Strongly Agree	Strongly Disagree
Members of my group actively try and involve me in conversations about things at work.	<input type="checkbox"/>	<input type="checkbox"/>
I don't think members of the group feel relaxed when they are with me.	<input type="checkbox"/>	<input type="checkbox"/>
As a year group, most of us care about how the others are getting along.	<input type="checkbox"/>	<input type="checkbox"/>
Work is made more enjoyable through being part of a group.	<input type="checkbox"/>	<input type="checkbox"/>
The support of my year group is important to me at work.	<input type="checkbox"/>	<input type="checkbox"/>
I spend most of my social life with my year group.	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I belong to, and am a part of my firm.	<input type="checkbox"/>	<input type="checkbox"/>
Socially, I try to get away from work and colleagues.	<input type="checkbox"/>	<input type="checkbox"/>
As a group, we're all in this together and try to help each other pull through.	<input type="checkbox"/>	<input type="checkbox"/>
If I have a problem with some exam study, I ask another member of the group for help before asking a tutor.	<input type="checkbox"/>	<input type="checkbox"/>
When it comes to performance in exams and link exams, I have a good idea of my ranking within the group.	<input type="checkbox"/>	<input type="checkbox"/>
As a group, we are pretty competitive with each other.	<input type="checkbox"/>	<input type="checkbox"/>
I find that I pick up expressions and jargon used by other members of the group.	<input type="checkbox"/>	<input type="checkbox"/>
If I'm not sure about how to deal with a situation at work, the opinions of other group members act as a guide.	<input type="checkbox"/>	<input type="checkbox"/>
It's important to me to fit in with my year group at work.	<input type="checkbox"/>	<input type="checkbox"/>
If I could start again, I would still choose a career in accountancy.	<input type="checkbox"/>	<input type="checkbox"/>



Please answer the following questions about your job by ticking (✓) the relevant box as before:

	Very much						Very little
How much variety is there in your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much are you left on your own to do your own work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How often do you see projects or jobs through to completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you find out how well you are doing on the job as you are working?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much opportunity is there in your job to meet individuals with whom you would like to develop friendships?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you aware of ethical issues when performing your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much of your job depends on your ability to work with others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much of your job depends on your ability to take account of the perspectives of others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How repetitious are your duties?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How much do you enjoy your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you able to act independently of your supervisor in performing your job function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you receive information from your superior on your job performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you have the opportunity to talk informally/socially with other employees while at work?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent is dealing with other people a part of your job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you have the opportunity to do a job from beginning to end?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you held responsible for the work you perform?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you feel satisfied with the security your job provides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To what extent are you satisfied with your salary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please indicate how important you think each of the following goals are to your firm:

	Not at all				Very much
High staff morale.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Efficiency of the firm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Firm's value to the community (business or general).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Profit maximization.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The firm's stability.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership within the firm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Service to the public.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The firm's reputation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The growth of the firm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

In this section there are 2 mini-case studies concerning issues facing accountants/auditors. Please respond to the 2 case studies. For each of the statements, please tick the relevant box to indicate what you think about the behaviour of the accountant/auditor in each case. For example, if you think the behaviour described was slightly unacceptable you might reply as follows:

Acceptable        Unacceptable

**Case 1**

It looks like the audit review of Green Ltd.'s creditor balance will run into the evening i.e. overtime of at least 2 hours. It's Friday, the last day of the audit of Green Ltd. Ann is due to go on exam study leave in a couple of weeks for the Intermediate Professional Exams. Tomorrow morning she has a link exam to be sat at the external tutor's premises for which she feels very underprepared. She planned to spend the whole evening working for the exam. Link examinations are seen by Ann's firm as an important indicator of preparedness for the Professional Exams; poor performance in them may influence the firm's willingness to allow/pay for resits in the event of failure of the Professional exams. Ann decides to work as fast as she can, allowing her to sign off the majority of the audit tests honestly by the end of the working day. She also signs off some tests which she hasn't performed fully, but which seem to her to involve minimal chance of uncovering a material misstatement of the creditor balance. Ann leaves the client having done 30 minutes overtime and in time to get home and put in some serious cramming.

Do you think Ann's conduct:

Is acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is unacceptable
Is morally right	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is not morally right
Would be acceptable to your family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable to your family
Is in the best interests of Ann's firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is not in the best interests of her firm
Is socially responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is socially irresponsible
Is professionally acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is professionally unacceptable
She was obliged to act in this way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	She was not obliged to act in this way

**Case 2**

Mr. A is the independent auditor of Blue Plc., a clothing manufacturer. Two years ago, it was discovered that a new line of children's pyjamas made by Blue Plc. were highly flammable. Blue Plc. recalled all of the pyjamas, and suffered a major loss. While conducting the current annual audit, Mr. A became aware that the company was selling the flammable pyjamas in a South American country, where there are no safety regulations to worry about. After the audit was completed, Mr. A considered making an anonymous phone call to the local newspaper to inform them of Blue Plc.'s actions. After considerable thought, however, he decided not to make the call.

What is your view of Mr. A's actions in not making the call?

Acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable
Morally right	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not morally right
Acceptable to your family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable to your family
In the best interests of Mr. A's firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not in the best interests of his firm
Socially responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Socially irresponsible
Professionally acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Professionally unacceptable
He was obliged to act in this way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	He was not obliged to act in this way

THANK YOU VERY MUCH FOR YOUR TIME

*Third year questionnaire*

This questionnaire is the third and LAST in a series of questionnaires concerned with the ethical attitudes of trainee Chartered Accountants. It is being completed by trainees in 140 training offices around the country. We would be very grateful if you could spare about 20 minutes of your time to complete it whether or not you have completed previous questionnaires in the series. Please return it in the reply paid envelope unless instructed otherwise by your firm. The study concerns changes in attitudes during the training process. PLEASE NOTE THAT NO INDIVIDUALS OR FIRMS WILL BE SINGLED OUT IN THE RESULTS, AND THAT YOUR PARTNERS AND MANAGERS WILL NOT BE ABLE TO IDENTIFY YOU WITH YOUR QUESTIONNAIRE RESPONSES. There are no right or wrong answers; please be as honest as possible. Thank you for your cooperation. If you have any queries or would like to know more about this research, please contact Alison Hull at the School of Management, University of Nottingham, Nottingham, NG7 2RD.

**Please tell us a bit about yourself:**

Are you: 1. Male 2. Female

*Please give the following information for identification purposes. This is needed only so that we can match your responses this year with those you gave last year, while retaining anonymity:*

Please give your date of birth \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Please give your town or city of birth \_\_\_\_\_

*Please indicate your status regarding Professional Exams:*

1. Exempt/fully relevant degree 2. Partially exempt 3. No exemptions

*Have you sat the Final Exams:* 1. Yes 2. No

*If no, please indicate when you expect to sit:.....*

*If yes, what was the result:* 1. Pass 2. Refer 3. Fail 4. Awaiting results

*Please indicate the approximate number, if any, of non-exam related days of formal/classroom training provided by your firm since you joined (in-house or bought in), and the areas covered:*  
No. of days

Auditing	.....
Taxation	.....
Time management	.....
Professional ethics ie. objectivity, independence, confidentiality, integrity, etc	.....
Other - please specify .....	.....

*Please indicate how important you believe professional ethics to be in the accountancy profession:*

Very Important  Very Unimportant

*Please tell us how much guidance and/or training in professional ethics you have received since joining:*

1. None 2. Not enough 3. About the right amount 4. A bit too much 5. Too much

*What do you hope to do in the medium term (2 to 3 years), career-wise, after qualifying:*

1. Stay with current firm 2. Move to another practice 3. Move into industry, business or commerce, etc. 4. Other 5. Don't know yet

*If you have received guidance and/or training about professional ethics, in what form have you received it:*

- |   |                        |                                 |                            |                 |
|---|------------------------|---------------------------------|----------------------------|-----------------|
| 1.  | 2.                     | 3.                              | 4.                         | 5.              |
| Formal training only<br>i.e. classroom and/or<br>reference material | Mostly formal training | Mix of formal<br>and on-the-job | Mostly on-the-job guidance | On-the-job only |

*To the extent that you have received formal training in professional ethics, how has it been delivered:*

- |                            |  |                                |
|----------------------------|--|--------------------------------|
| 1. By external exam tutors | 2. By internal training managers or partners | 3. Handbook/reference material |
|----------------------------|--|--------------------------------|

Please tick (✓) the relevant box to indicate the extent to which you agree or disagree with the following statements:

	Strongly Agree	Strongly Disagree
I am willing to put in a great deal of effort beyond that normally expected in order to help my firm be successful.	<input type="checkbox"/>	<input type="checkbox"/>
I would accept almost any type of job assignment in order to keep working for my firm.	<input type="checkbox"/>	<input type="checkbox"/>
I find that my values and the firm's values are very similar.	<input type="checkbox"/>	<input type="checkbox"/>
I am proud to tell people that I am part of this firm.	<input type="checkbox"/>	<input type="checkbox"/>
This firm really inspires the very best in me in the way of job performance.	<input type="checkbox"/>	<input type="checkbox"/>
I am extremely glad that I chose this firm to work for over others I was considering at the time I joined.	<input type="checkbox"/>	<input type="checkbox"/>
I really care about the fate of this firm.	<input type="checkbox"/>	<input type="checkbox"/>
Partners in my firm have let it be known in no uncertain terms that unethical behaviour will not be tolerated	<input type="checkbox"/>	<input type="checkbox"/>
If a manager in my firm is discovered to have engaged in professionally unethical behaviour that results primarily in personal gain (rather than gain to the firm), he/she will be promptly reprimanded.	<input type="checkbox"/>	<input type="checkbox"/>
If a manager in my firm is discovered to have engaged in professionally unethical behaviour that results primarily in gain to the firm (rather than personal gain), he/she will be promptly reprimanded.	<input type="checkbox"/>	<input type="checkbox"/>
There are few opportunities for trainees in my firm to engage in unethical behaviours.	<input type="checkbox"/>	<input type="checkbox"/>
Successful trainees in my firm are generally more ethical in their professional attitudes than unsuccessful trainees.	<input type="checkbox"/>	<input type="checkbox"/>
The way we do things in this firm is pretty much the same as in other similar sized firms.	<input type="checkbox"/>	<input type="checkbox"/>
If I could start again, I would still choose a career in accountancy.	<input type="checkbox"/>	<input type="checkbox"/>
It is important to me to have really nice things.	<input type="checkbox"/>	<input type="checkbox"/>
I would like to be rich enough to buy anything I want.	<input type="checkbox"/>	<input type="checkbox"/>
I'd be happier if I could afford to buy more things.	<input type="checkbox"/>	<input type="checkbox"/>
It sometimes bothers me that I can't afford to buy all the things that I want.	<input type="checkbox"/>	<input type="checkbox"/>
People place too much emphasis on material things.	<input type="checkbox"/>	<input type="checkbox"/>
It's really true that money can buy happiness.	<input type="checkbox"/>	<input type="checkbox"/>

Listed below are 9 values. Please tick (✓) the relevant box to indicate their importance to YOU, as guiding principles in YOUR life generally, not just in the context of your work. It is important that you tick a box for every item.

		Very Important			Very Unimportant
1	A sense of accomplishment (i.e. a lasting contribution)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Equality (i.e. brotherhood, equal opportunity for all)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Family security (i.e. taking care of loved ones)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Freedom (i.e. independence, free choice)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Inner harmony (i.e. peace of mind, freedom from inner conflict)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Pleasure (i.e. an enjoyable, leisurely life)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Self-respect (i.e. self-esteem)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Social recognition (i.e. respect, admiration)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Wisdom (i.e. a mature understanding of life)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**How many other graduates joined your firm at the same time as you? .....**

*If none, please move on to the next page.*

Your fellow joiners will be referred to as "the group". Please tick the relevant box to indicate the extent to which you agree with the following statements:

	Strongly Agree				Strongly Disagree
Members of my group actively try and involve me in conversations about things at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't think members of the group feel relaxed when they are with me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a year group, most of us care about how the others are getting along.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work is made more enjoyable through being part of a group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The support of my year group is important to me at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I spend most of my social life with my year group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I belong to, and am a part of my firm.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Socially, I try to get away from work and colleagues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a group, we're all in this together and try to help each other pull through.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I have a problem with some exam study, I ask another member of the group for help before asking a tutor.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When it comes to performance in exams and link exams, I have a good idea of my ranking within the group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a group, we are pretty competitive with each other.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I find that I pick up expressions and jargon used by other members of the group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If I'm not sure about how to deal with a situation at work, the opinions of other group members act as a guide.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's important to me to fit in with my year group at work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Please tick (✓) the relevant box to indicate the extent to which you agree or disagree with the following statements:

	Strongly Agree	Strongly Disagree
If I do not comply with managers and partners in the firm I will not be rewarded eg. with extra salary or appropriate career development.	<input type="checkbox"/>	<input type="checkbox"/>
I want to do as the managers and partners suggest because of the good things they'll give me for complying eg. a good name in the firm, salary rise, exam funding, etc.	<input type="checkbox"/>	<input type="checkbox"/>
In general the opinions and values of the managers and seniors-in-charge are similar to mine.	<input type="checkbox"/>	<input type="checkbox"/>
Being similar to my managers in my opinions and values is good.	<input type="checkbox"/>	<input type="checkbox"/>
Partners and managers can harm me in some way if I do not do as they wish.	<input type="checkbox"/>	<input type="checkbox"/>
If I do not do as staff senior to me in the firm tell me, they may hinder my career development or salary prospects.	<input type="checkbox"/>	<input type="checkbox"/>
Something bad will happen to me if I don't do as the manager on a job requests and he finds out.	<input type="checkbox"/>	<input type="checkbox"/>
I trust the judgement of managers and partners in this firm.	<input type="checkbox"/>	<input type="checkbox"/>
On an audit issue, the manager's expertise makes him/her more likely to be right.	<input type="checkbox"/>	<input type="checkbox"/>
It is my duty to comply with managers and partners in the firm.	<input type="checkbox"/>	<input type="checkbox"/>
Because of the partners' positions they have the right to influence my behaviour.	<input type="checkbox"/>	<input type="checkbox"/>
You have to respect authority and when you stop respecting authority, your situation at the firm isn't worth much.	<input type="checkbox"/>	<input type="checkbox"/>
Doing as instructed and respecting authority are two very important characteristics that trainee accountants need.	<input type="checkbox"/>	<input type="checkbox"/>

Please tick (✓) the relevant box to indicate how true you think the following statements about your work are:

	Very True	Very False
I have enough time to complete my work.	<input type="checkbox"/>	<input type="checkbox"/>
I feel certain about how much authority I do or do not have.	<input type="checkbox"/>	<input type="checkbox"/>
There are clear, planned goals and objectives for my job.	<input type="checkbox"/>	<input type="checkbox"/>
I sometimes have to do things that I believe should be done differently.	<input type="checkbox"/>	<input type="checkbox"/>
Generally, I know that I have divided my time appropriately in my job.	<input type="checkbox"/>	<input type="checkbox"/>
I sometimes have to bend a rule/policy in order to carry out an assignment.	<input type="checkbox"/>	<input type="checkbox"/>
I work with two or more groups who operate quite differently.	<input type="checkbox"/>	<input type="checkbox"/>
I know exactly what is expected of me.	<input type="checkbox"/>	<input type="checkbox"/>
I do things that are apt to be accepted by one person and not accepted by another.	<input type="checkbox"/>	<input type="checkbox"/>
I receive an assignment without adequate resources and materials to execute it.	<input type="checkbox"/>	<input type="checkbox"/>
Explanations of what has to be done in my job are clear.	<input type="checkbox"/>	<input type="checkbox"/>
I take account of the opinions of my peer group when deciding how to carry out my job.	<input type="checkbox"/>	<input type="checkbox"/>
I work on unnecessary things.	<input type="checkbox"/>	<input type="checkbox"/>



In this section there are 2 mini-case studies concerning issues facing accountants/auditors. Please respond to the 2 case studies. For each of the statements, please tick the relevant box to indicate what you think about the behaviour of the accountant/auditor in each case. For example, if you think the behaviour described was slightly unacceptable you might reply as follows:

Acceptable        Unacceptable

**Case 1**

It looks like the audit review of Green Ltd.'s creditor balance will run into the evening i.e. overtime of at least 2 hours. It's Friday, the last day of the audit of Green Ltd. Ann is due to go on exam study leave in a couple of weeks for the Intermediate Professional Exams. Tomorrow morning she has a link exam to be sat at the external tutor's premises for which she feels very underprepared. She planned to spend the whole evening working for the exam. Link examinations are seen by Ann's firm as an important indicator of preparedness for the Professional Exams; poor performance in them may influence the firm's willingness to allow/pay for resits in the event of failure of the Professional exams. Ann decides to work as fast as she can, allowing her to sign off the majority of the audit tests honestly by the end of the working day. She also signs off some tests which she hasn't performed fully, but which seem to her to involve minimal chance of uncovering a material misstatement of the creditor balance. Ann leaves the client having done 30 minutes overtime and in time to get home and put in some serious cramming.

Do you think Ann's conduct:

Is acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is unacceptable
Is morally right	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is not morally right
Would be acceptable to your family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable to your family
Is in the best interests of Ann's firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is not in the best interests of her firm
Is socially responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is socially irresponsible
Is professionally acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is professionally unacceptable
She was obliged to act in this way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	She was not obliged to act in this way

**Case 2**

Mr. A is the independent auditor of Blue Plc., a clothing manufacturer. Two years ago, it was discovered that a new line of children's pyjamas made by Blue Plc. were highly flammable. Blue Plc. recalled all of the pyjamas, and suffered a major loss. While conducting the current annual audit, Mr. A became aware that the company was selling the flammable pyjamas in a South American country, where there are no safety regulations to worry about. After the audit was completed, Mr. A considered making an anonymous phone call to the local newspaper to inform them of Blue Plc.'s actions. After considerable thought, however, he decided not to make the call.

What is your view of Mr. A's actions in not making the call?

Acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable
Morally right	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not morally right
Acceptable to your family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unacceptable to your family
In the best interests of Mr. A's firm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not in the best interests of his firm
Socially responsible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Socially irresponsible
Professionally acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Professionally unacceptable
He was obliged to act in this way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	He was not obliged to act in this way

THANK YOU VERY MUCH FOR YOUR TIME

*Appendix 2: Correlations between dependent and other key variables*

*Table A.2.1: Bivariate correlations of year one variables by scenario*

Scenario Variable	Tax referral	Flammable pyjamas			
	Sum	Personal	Professional	Sum	Conflict
sex	0.26**	0.07	0.08	0.11*	-0.02
loc sum	0.02	0.00	0.02	0.03	-0.02
val soc	-0.18**	-0.19**	-0.06	-0.16**	-0.09
val work	-0.10*	-0.14**	-0.05	-0.12*	-0.06
val gen	-0.15**	-0.13**	-0.03	-0.10	-0.08
val hed	0.02	-0.09	-0.02	-0.07	-0.05
dvri	0.16**	0.11*	0.10	0.12*	-0.05
per mat	0.10*	0.04	0.10	0.08	-0.07
f ethics	-0.10*	0.01	0.05	0.04	-0.04
f commt	-0.04	-0.09	0.06	-0.00	-0.12*
p commt	-0.08	0.01	0.05	0.06	-0.03
peer pwr chk	-0.01	-0.02	0.02	0.01	-0.04
pwr crc	0.14**	-0.06	0.10	0.02	-0.13**
pwr ref	-0.01	0.05	0.01	0.04	0.03
pwr lgt	0.11*	0.07	0.01	0.06	0.04
pwr rwd	0.26**	-0.04	-0.01	-0.1	-0.03
pwr xpt	0.05	-0.03	0.00	0.00	-0.03
ra	0.00	-0.07	0.05	0.01	-0.10
rc	0.10	0.14**	0.03	0.07	0.07
ra em	0.02	-0.05	-0.01	-0.02	-0.03
rc em	0.10*	0.19**	0.02	0.09	0.12*
role time	0.00	-0.06	0.05	0.01	-0.09
jci fbk	-0.04	-0.01	0.00	0.00	0.00
jci aut	-0.03	0.01	0.04	0.04	-0.03
jci var	0.13*	0.10*	0.02	0.07	0.06
jci ami	-0.02	0.03	0.04	0.05	-0.01
jci oth	-0.02	-0.08	0.04	-0.01	-0.10
jci oth em	-0.04	-0.04	0.03	0.01	-0.06
tax sum	1.00	0.07	0.05	0.08	0.00
pyj pers	0.07	1.00	0.29**	0.75**	0.48**
pyj prof	0.05	0.29**	1.00	0.84**	-0.70**
pyj sum	0.08	0.75**	0.84**	1.00	-0.21**
pyj conf	0.00	0.48**	-0.70**	-0.21**	1.00

\* Two-tailed significance at 5%

\*\* Two-tailed significance at 1%

n = 393

*Table A.2.2: Bivariate correlations of year two variables by scenario*

Scenario Variable	Audit sign-off	Flammable pyjamas			
	Sum	Personal	Professional	Sum	Conflict
sex	0.11	0.15*	0.10	0.16*	0.03
e tr days	0.07	0.04	0.03	0.04	0.01
firm sup	0.05	0.00	0.15*	0.08	-0.12
f ethics	-0.29**	-0.04	0.12	0.05	-0.13
f commt	-0.11	0.16*	0.04	0.13	0.09
soczn	-0.17*	0.02	-0.09	-0.03	0.08
conform	0.00	0.11	-0.02	0.05	0.10
accptn	-0.19*	-0.11	-0.07	-0.08	-0.03
peer pwr chk	0.09	0.09	0.01	0.07	0.06
pwr crc	-0.03	-0.09	0.08	0.01	-0.13
pwr ref	-0.24**	0.10	0.02	0.09	0.06
pwr lgt	-0.03	0.10	0.06	0.12	0.02
pwr rwd	-0.03	0.09	-0.01	0.04	0.08
pwr xpt	-0.17*	-0.03	0.02	0.01	-0.04
ra	-0.08	-0.01	0.03	0.02	-0.03
rc	0.22**	0.04	0.09	0.09	-0.04
ra em	-0.10	0.06	0.05	0.08	0.00
rc em	-0.13	0.09	0.18*	0.18*	-0.08
role time	-0.14	-0.01	-0.02	-0.02	0.01
jci fbk	-0.10	0.12	0.00	0.09	0.09
jci aut	-0.22**	0.00	0.03	0.00	-0.03
jci var	-0.16*	0.13	-0.02	0.05	0.11
jci ami	-0.12	0.03	-0.04	0.01	0.06
jci oth	-0.22**	-0.07	-0.11	-0.10	0.03
jci othem	-0.22**	-0.07	-0.10	-0.09	0.03
orgval em	0.15*	0.02	-0.01	0.00	0.02
orgval csr	0.17*	0.04	0.00	0.05	0.02
orgval prod	0.17*	0.00	0.01	-0.01	0.00
orgval lead	0.10	-0.01	-0.02	-0.02	0.02
audit sum	1.00	-0.05	-0.07	-0.10	0.02
pyj pers	-0.05	1.00	0.15*	0.70**	0.63**
pyj prof	-0.07	0.15*	1.00	0.79**	-0.68**
pyj sum	-0.10	0.70**	0.79**	1.00	-0.10
pyj conf	0.02	0.63**	-0.68**	-0.10	1.00

\* Two-tailed significance at 5%

\*\* Two-tailed significance at 1%

n = 197

**Table A.2.3: Bivariate correlations of year three variables by scenario**

Scenario Variable	Audit sign-off	Flammable pyjamas			
	Sum	Personal	Professional	Sum	Conflict
sex	0.11	0.11	0.04	0.10	0.06
val soc	-0.13	-0.07	0.03	-0.04	-0.08
val work	-0.15	-0.08	0.04	-0.05	-0.09
val gen	-0.04	-0.02	-0.08	-0.08	-0.05
val hed	0.01	0.03	0.13	0.12	-0.09
dvri	0.09	0.07	0.15	0.14	-0.07
permat	0.17	0.08	0.01	0.08	0.06
e tr days	-0.01	0.06	-0.10	-0.04	0.13
firm sup	0.04	0.01	0.18	0.12	-0.14
f ethics	-0.23**	0.10	0.08	0.16	0.02
f commt	-0.15	0.27**	0.09	0.23**	0.15
soczn	-0.15	0.01	0.10	0.07	-0.07
conform	-0.09	0.05	-0.03	0.02	0.06
accptn	-0.06	-0.05	0.11	0.05	-0.13
peer pwr chk	-0.10	0.03	0.11	0.11	-0.07
pwr crc	0.08	-0.03	0.16	0.08	-0.15
pwr ref	-0.02	0.18*	0.06	0.15	0.10
pwr lgt	0.06	0.12	0.08	0.14	0.03
pwr rwd	0.00	-0.06	0.07	0.01	-0.10
pwr xpt	-0.10	0.10	0.10	0.12	0.00
ra	-0.21*	0.24**	0.18*	0.25**	0.04
rc	0.10	-0.09	0.08	0.00	-0.14
ra em	-0.28**	0.24**	0.15	0.24**	0.06
rc em	0.08	0.07	0.14	0.14	-0.06
role time	-0.16	0.15	0.12	0.16	0.02
jci fbk	-0.04	0.04	0.02	0.05	0.02
jci aut	0.04	0.01	0.09	0.06	-0.07
jci var	-0.01	0.15	0.01	0.07	0.12
jci ami	0.00	-0.03	0.07	0.05	-0.08
jci oth	-0.04	0.11	0.16	0.16	-0.04
jci oth em	-0.03	0.11	0.12	0.15	-0.01
orgval em	0.17	0.04	-0.08	-0.05	0.10
orgval csr	0.19*	-0.24**	-0.12	-0.23**	-0.09
orgval prod	0.16	0.09	-0.07	-0.01	0.13
orgval lead	0.17	-0.07	-0.15	-0.15	0.06
audit sum	1.00	0.03	-0.07	-0.03	0.08
pyj pers	0.03	1.00	0.25**	0.77**	0.59**
pyj prof	-0.07	0.25**	1.00	0.79**	-0.63**
pyj sum	-0.03	0.77**	0.79**	1.00	-0.04
pyj conf	0.08	0.59**	-0.63**	-0.04	1.00

\* Two-tailed significance at 5%

\*\* Two-tailed significance at 1%

n = 134

In this Appendix, bivariate correlation coefficients between the scenario responses and the main measurement scales are discussed. The purpose of the analysis of correlations is to explore the relationships in the data. They provide useful descriptive information and are also useful for the conduct of regression analysis. The correlations presented in this appendix are calculated within each period. Across-time correlations are discussed in chapter 8. Tables A.2.1 to A.2.3 give bivariate correlation coefficients *by scenario* for each data collection period. It was decided to present the correlations by scenario in order, first, to aid regression analysis which uses the scenario responses as the dependent variables, and second, to present the data in a manageable form. Traditional correlation tables were unwieldy due to the large number of variables involved. In the tables, significant coefficients are indicated using asterisks. As the main function of the correlations was to describe the data, the discussion in the remainder of this appendix offers a descriptive summary of the results - no interpretation of the correlations is offered. This takes place in the context of hypothesis testing. The order of the discussion is as follows: In the section which follows, a summary of the significant correlations for each scenario in each year will be given and any patterns of significance for the same scenario in different years will be highlighted. In the final section, the issue of whether there are any common significant correlations across different scenarios in the same time period is addressed. Unless otherwise stated, the discussion concerns correlations which are significant at  $p = 0.01$  or less. P-values of correlations significant at between 1% and 5% are indicated in parentheses.

#### **Significant correlations for each scenario and patterns across time**

Responses to the tax referral scenario in the first year were found to be significantly correlated with gender, values, coercive power and reward power. Females, subjects with high personal values, and subjects who rated coercive power and reward power as low all correlated positively with tendency to rate scenario behaviour as unacceptable. This scenario was not used in the second and third years. Responses to the premature audit sign-off scenario were significantly correlated, in year 2, with firm's ethics, reference power, role conflict, job autonomy, the "dealing with others" job characteristic, and with the organisational goal emergent factors of firms' success ( $p=0.028$ ) and social responsibility ( $p=0.014$ ). In year 3, premature audit sign-off response were correlated with firm's ethics, role ambiguity and social responsibility organisational goals. The elements common to both years are firm's ethics and organisational goals. As might be expected, perceived high

ethical standards in firms and highly important social responsibility organisational goals are correlated with unacceptability of premature sign-off.

Correlation coefficients for the FP case were calculated for each dimension. Personal unacceptability of the case was correlated, in the first year, with high personal values and low role conflict, in the second year, with being female ( $p=0.028$ ) and low firm commitment ( $p=0.028$ ), and in the third year, with low firm commitment, high role ambiguity and social responsibility goals being perceived as unimportant to firms. The only common element across any of the three time periods is firm commitment in years 2 and 3; subjects who had no difficulty accepting the auditor's actions on a personal level tended to be more committed to their firms than those for whom the actions were personally/"morally" unacceptable. There were no significant correlations in the first year with the professional dimension of the FP case. This may be reflective of the early career stage and lack of formed professional opinions. There are, however, few significant correlations even in the second and third years. Professional unacceptability of the auditor's actions was correlated, in the second year, with having received in-house formal ethics training (as opposed to that provided externally or by reference material) ( $p=0.044$ ) and with low role conflict ( $p=0.011$ ), and in the third year, only with high role ambiguity ( $p=0.044$ ). Correlating with responses indicating unacceptability in the FP case mean across all seven multidimensional ethics scale items were high strength of conviction in personal values, and gender (being female) in the first year, gender ( $p=0.021$ ) and low role conflict ( $p=0.012$ ) in the second year, and low firm commitment, high role ambiguity and low importance of social responsibility goals in the third year. The only pattern is the significance of gender in the first and second years, but not in the third. This result will be revisited in the context of hypothesis testing. The final set of correlations relate to the conflict dimension of the FP case. The conflict score was calculated as personal dimension score minus professional dimension score. The only significant results in any of the three years were in the first year when conflict was negatively correlated with perceived coercive power. That is, subjects rating the scenario behaviour as more personally than professionally unacceptable were more likely to rate coercive power as low than high. The only other correlations with the conflict dimension were firm commitment ( $p=0.016$ ) and role conflict ( $p=0.024$ ) in the first year, high commitment and low role conflict being associated with greater difference between personal and professional.



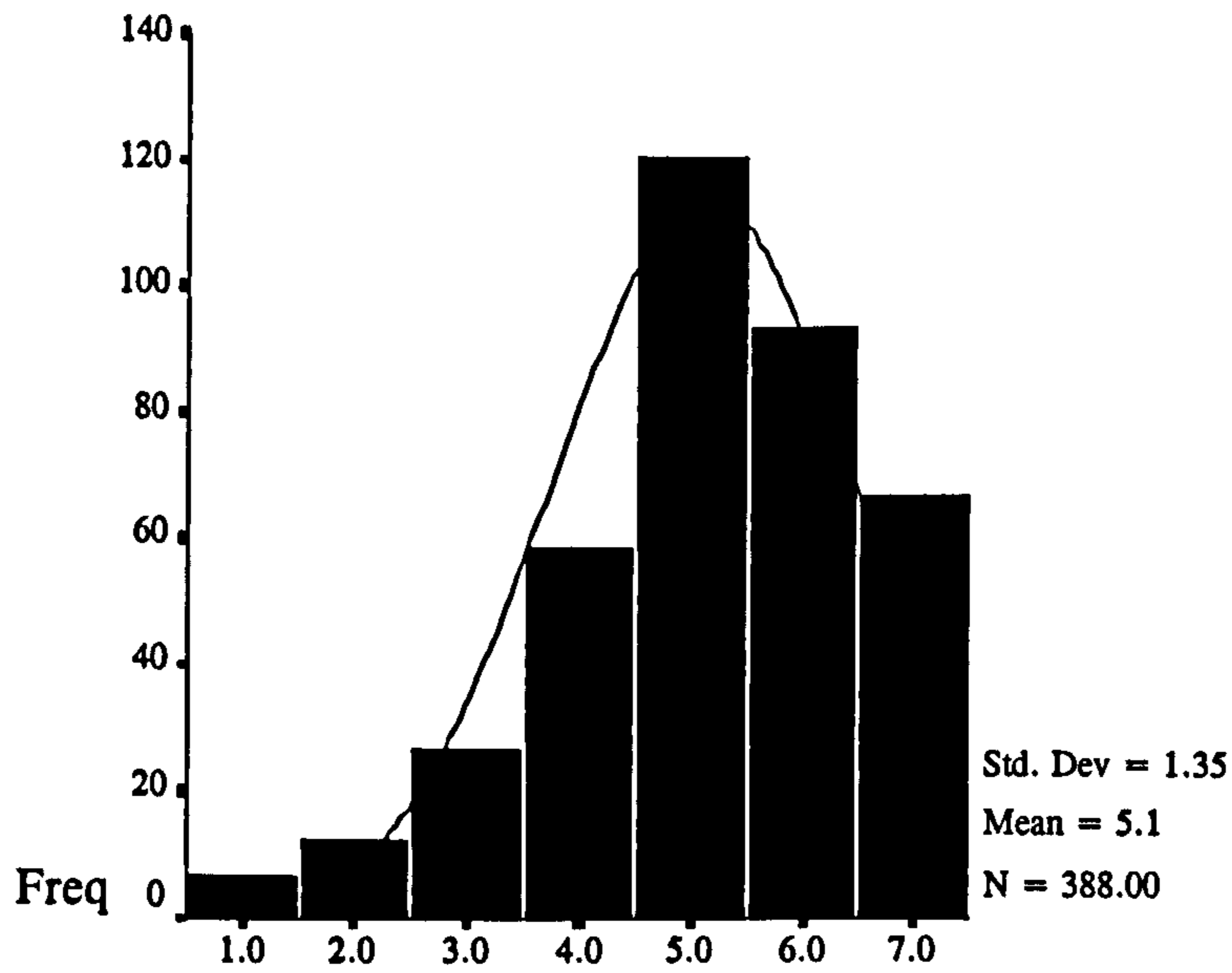
### **Patterns for different scenarios within time periods**

In the first year, strength of conviction was a significant correlate common to the tax referral case, to the personal dimension of the FP and to the FP case mean. Coercive power was common to the tax case and the FP conflict dimension. Role conflict was correlated with the personal and conflict dimensions of the FP case and with the tax case, although the latter two only at 5%. There were no other common correlates across the scenarios in year 1. In year 2, there were no discernible patterns within the time period at all. A few patterns were observed in the year 3 data. Firm commitment was common to the personal dimension and summary of the FP case, and role ambiguity was common to all the scenarios except the conflict dimension, although it was negatively correlated in the audit case but positively correlated in the FP case. Finally, responses to the audit case, FP case, personal and conflict, were significantly correlated with social responsibility goals, although, again, in opposing directions for the two scenarios.

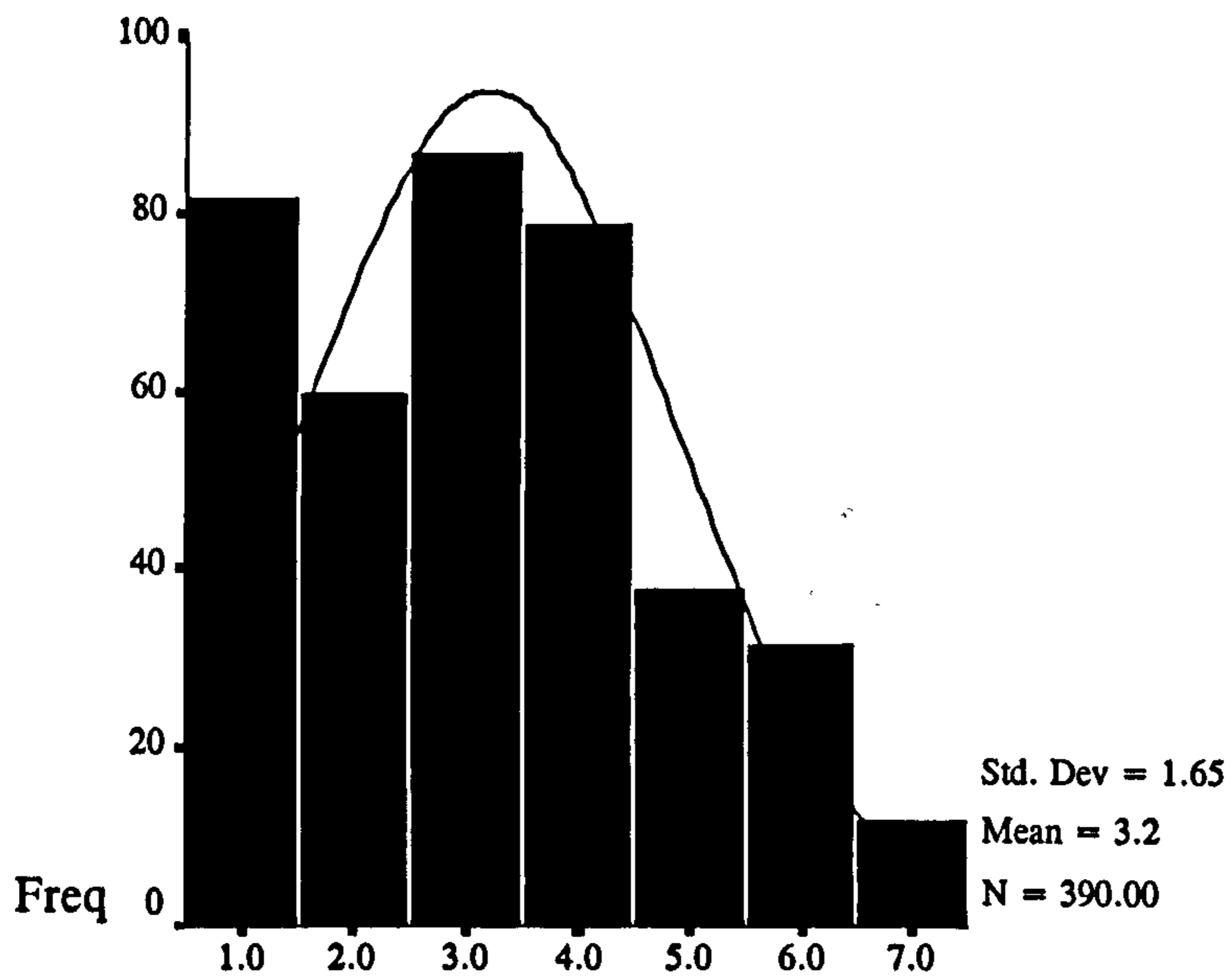
In summary, the data contain relatively few significant correlations and even fewer discernible patterns of correlation across scenarios and across time. The correlations do, however, provide initial descriptive statistics concerning the variables in the study and are useful in subsequent regression analysis.

*Appendix 3: Descriptive statistics for the dependent variables*

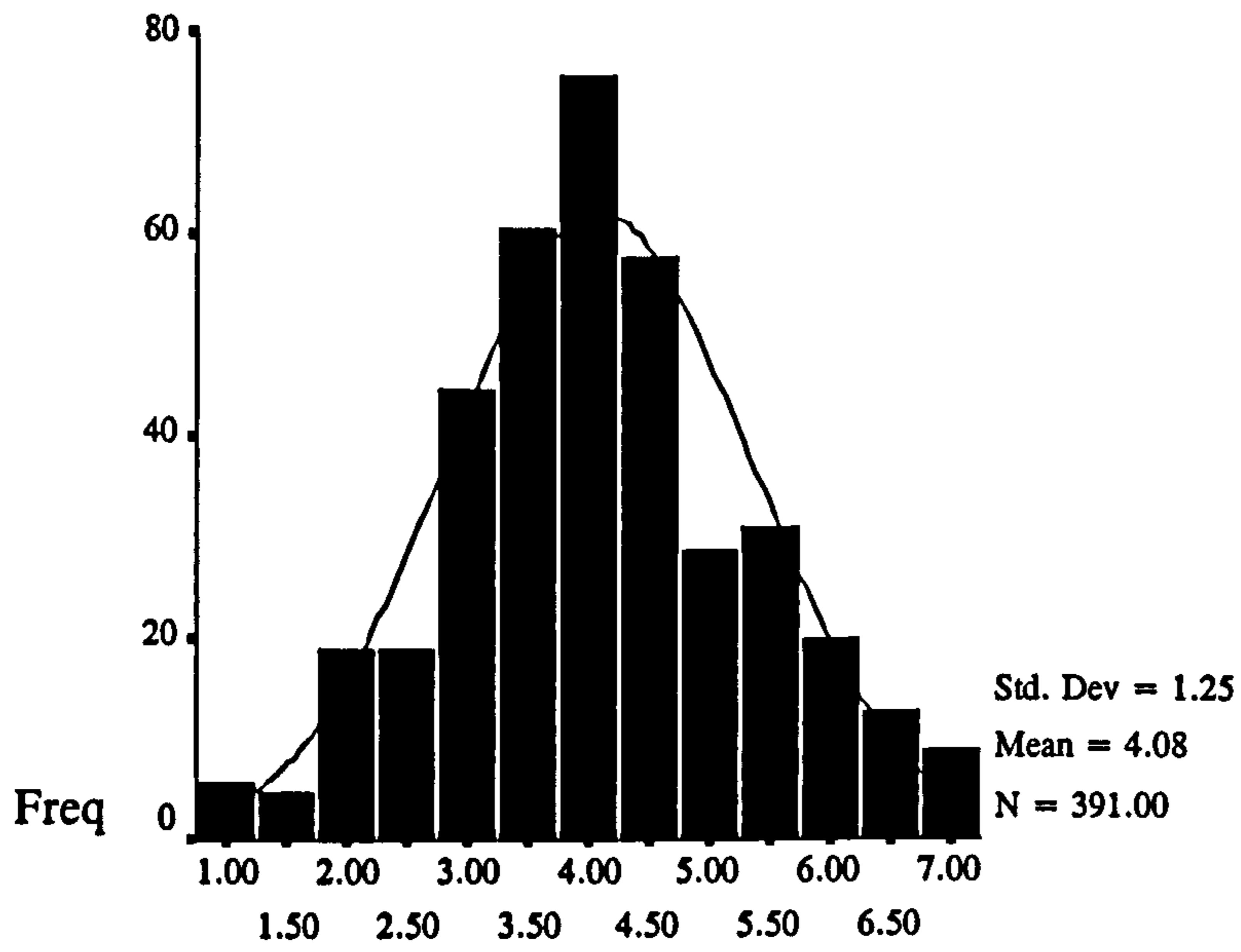
*Year 1: FP case - personal*



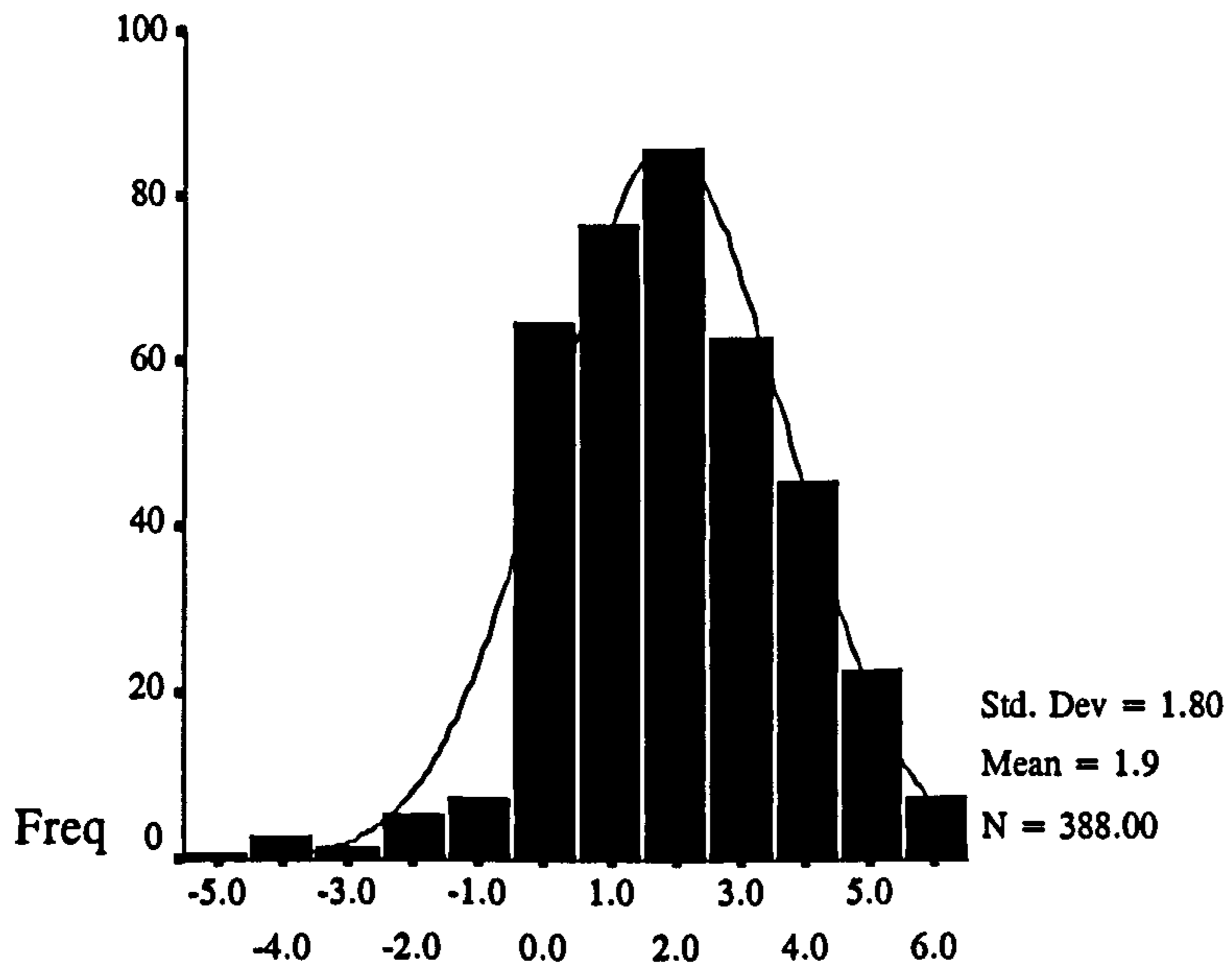
*Year 1: FP case - professional*



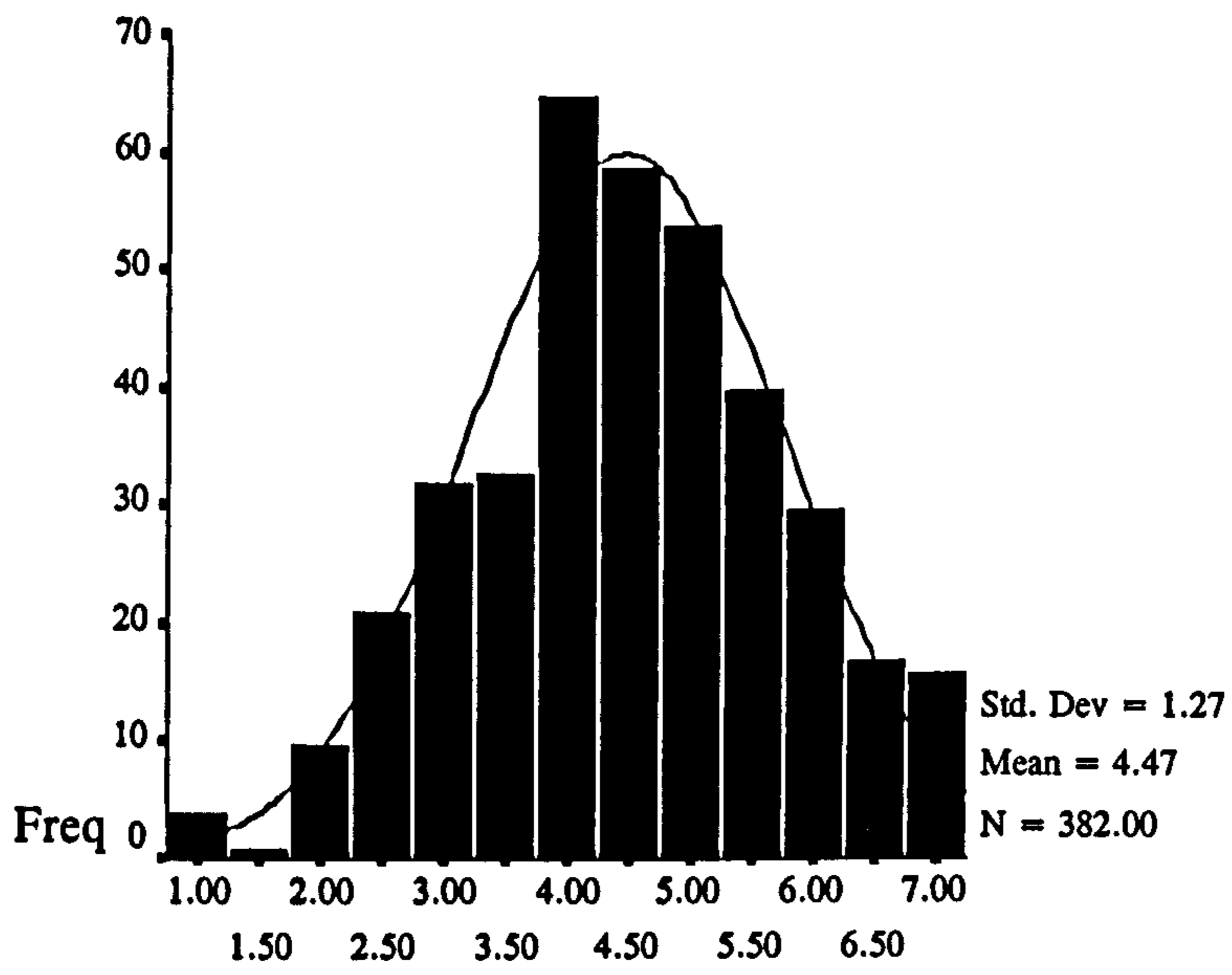
*Year 1: FP case - sum*



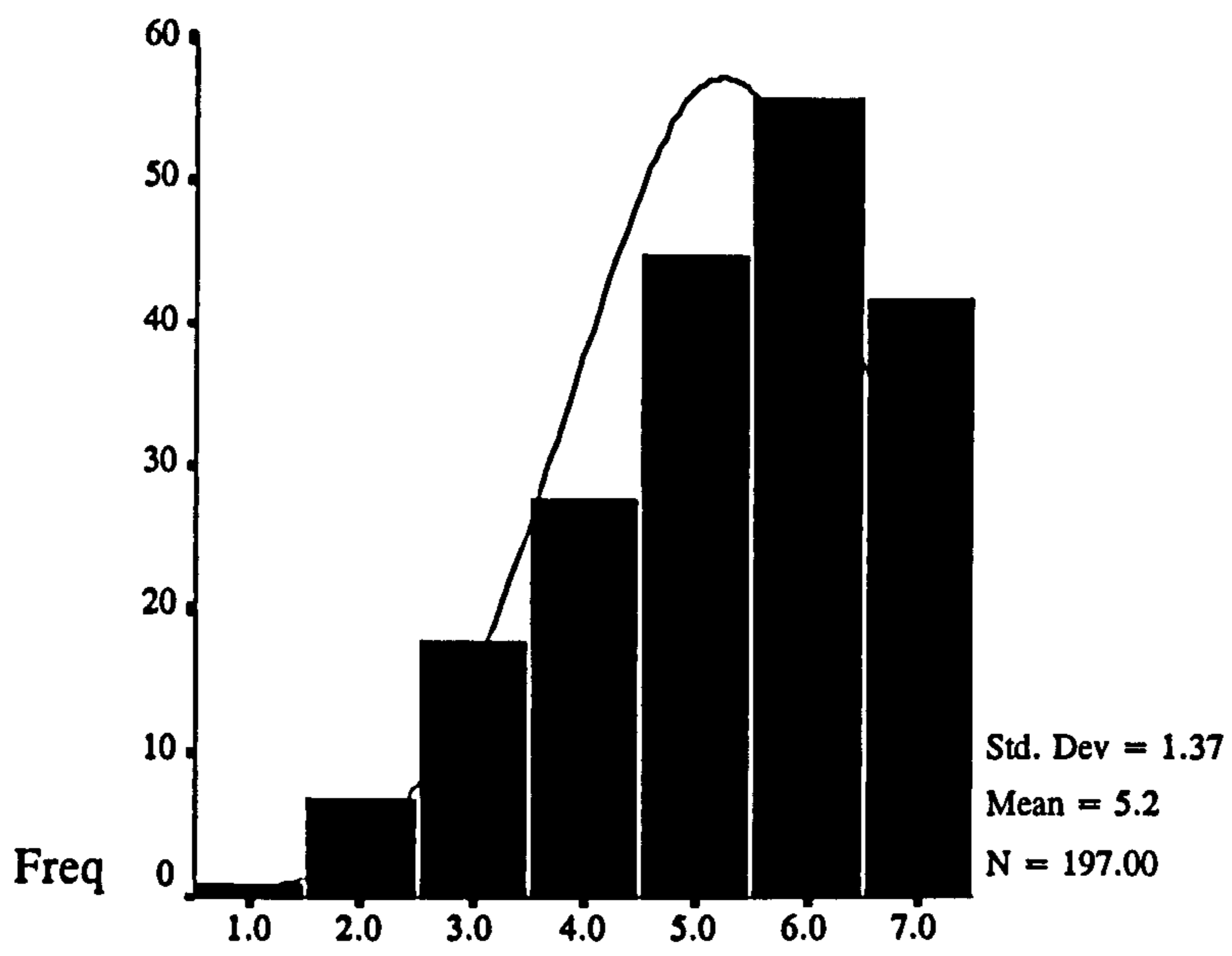
*Year 1: FP case - conflict*



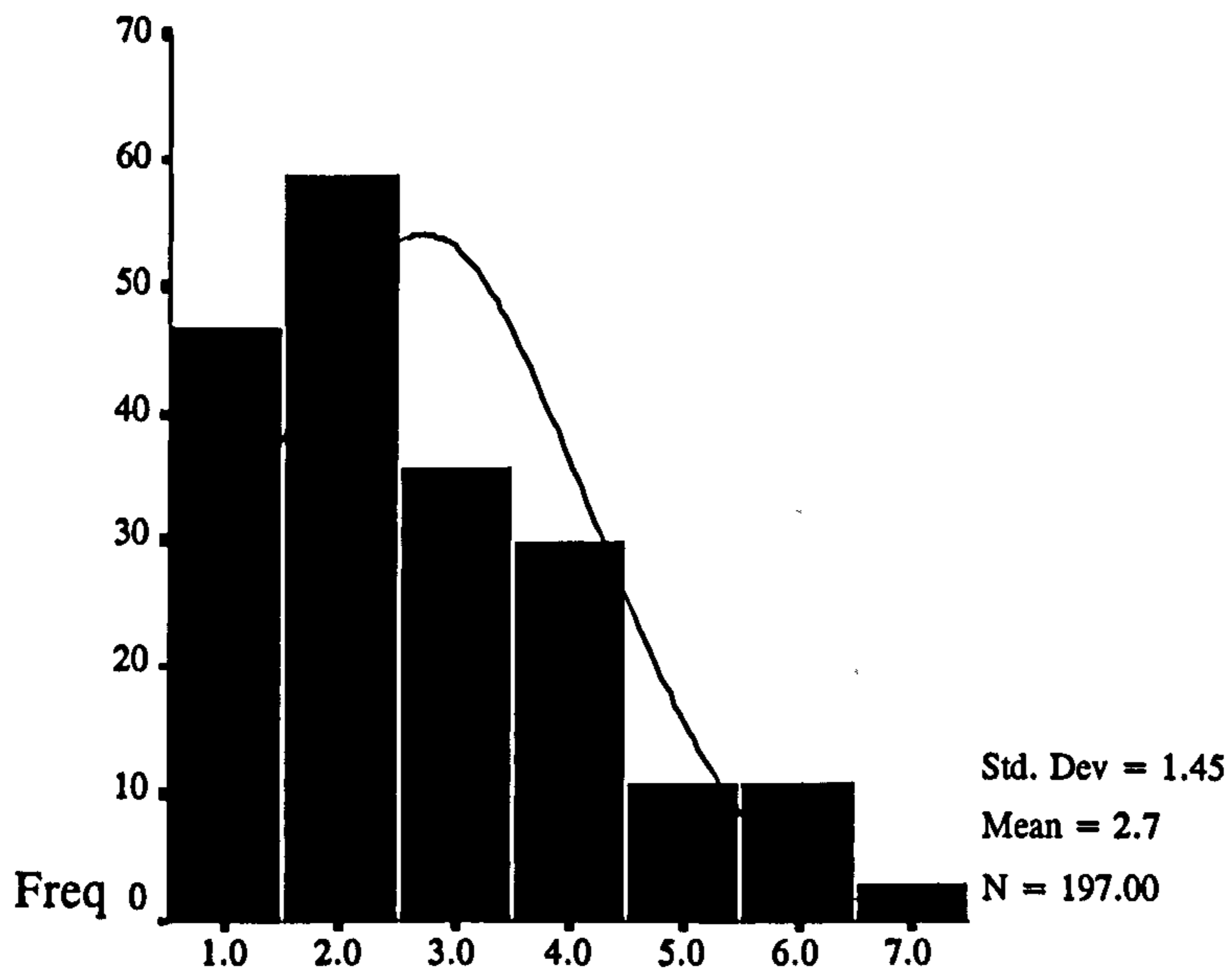
*Year 1: Tax referral case - sum*



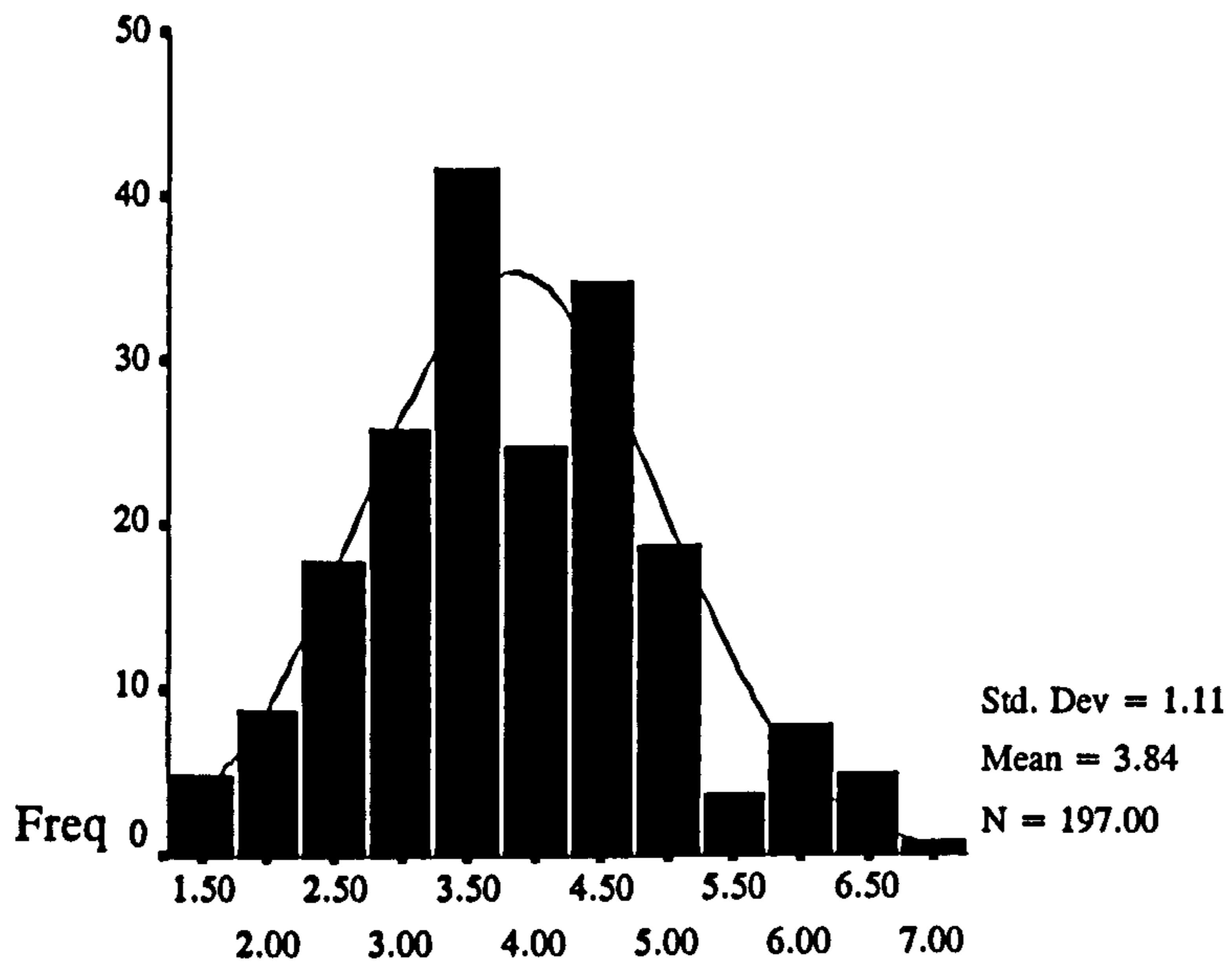
*Year 2: FP case - personal*



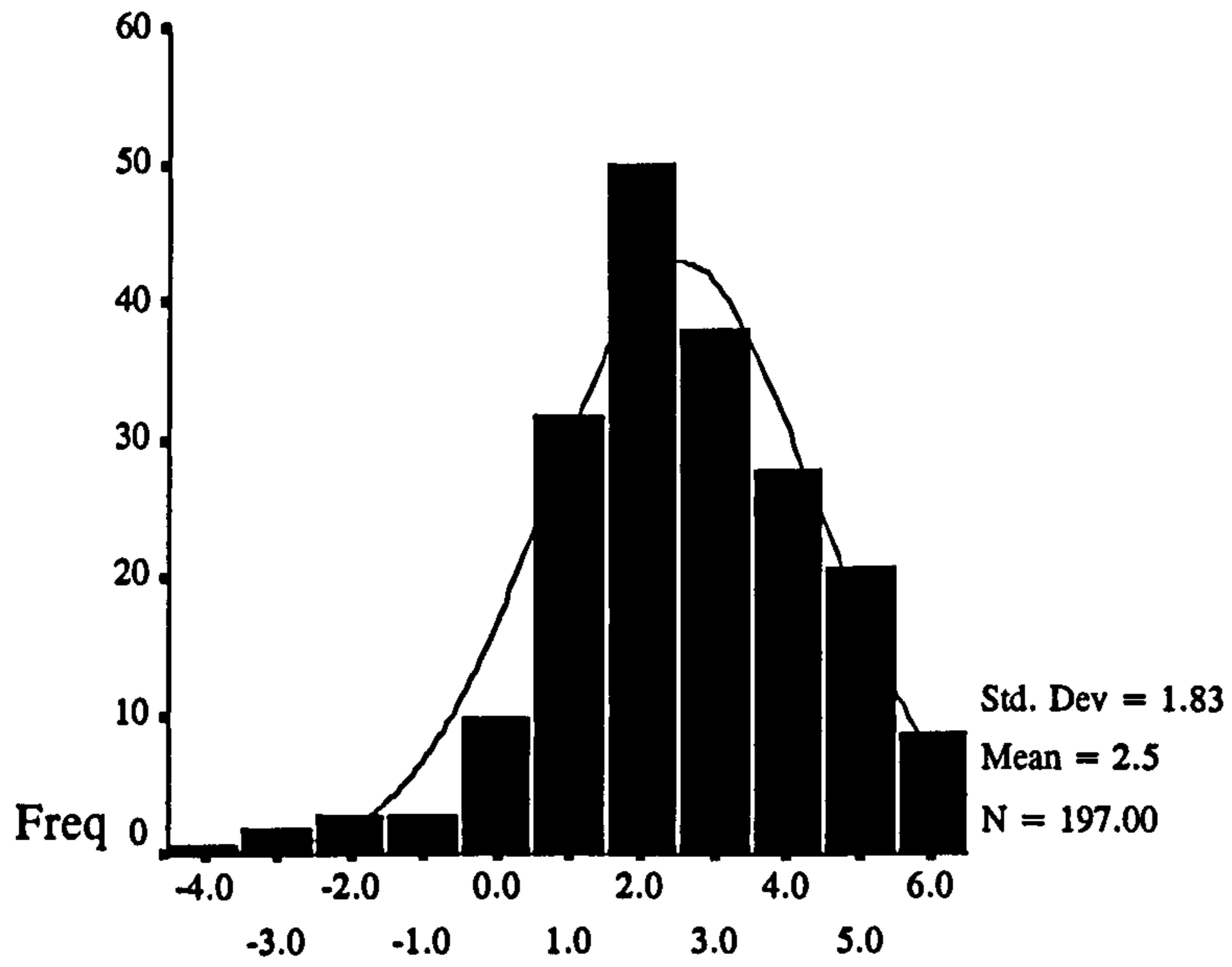
*Year 2: FP case - professional*



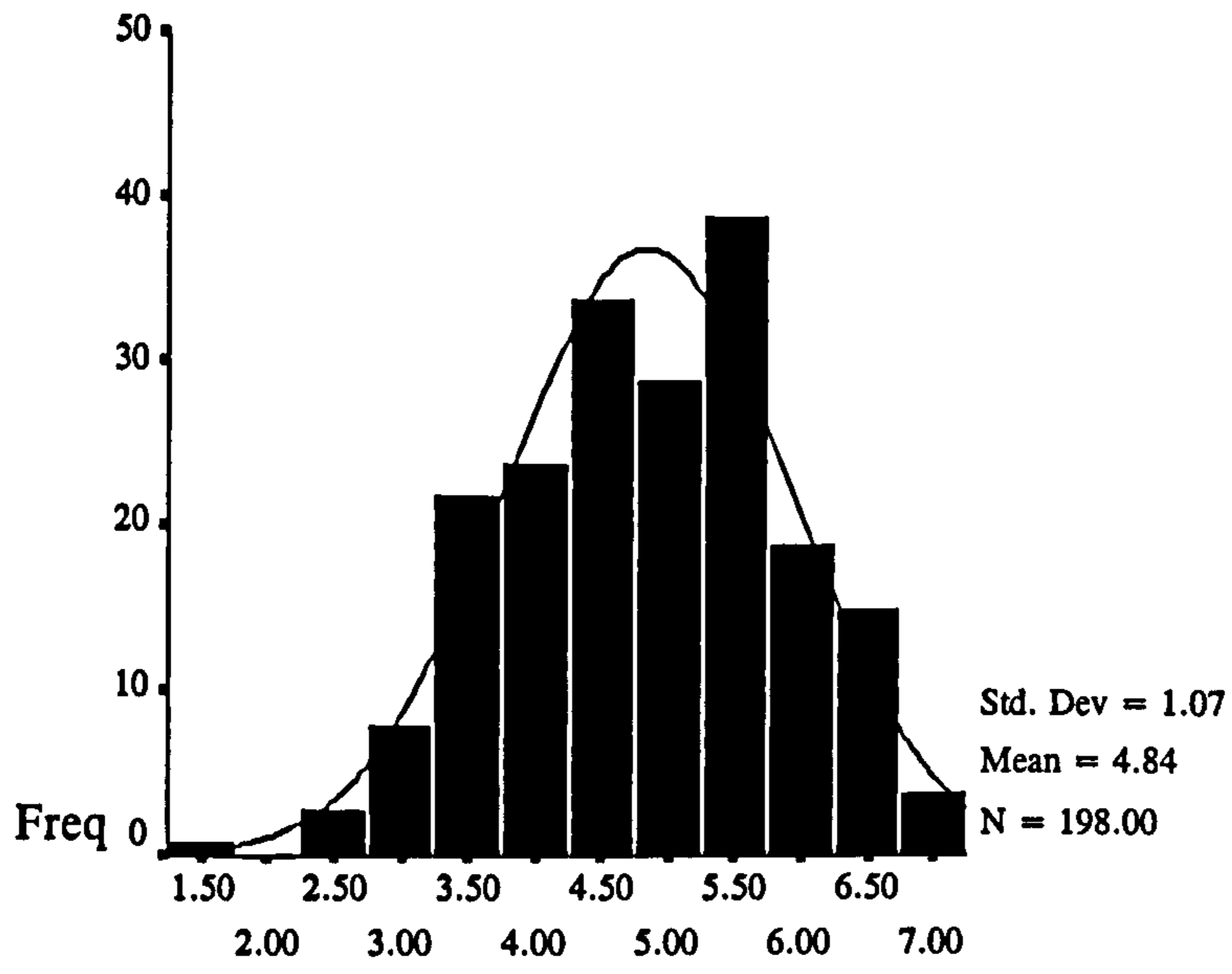
*Year 2: FP case - sum*



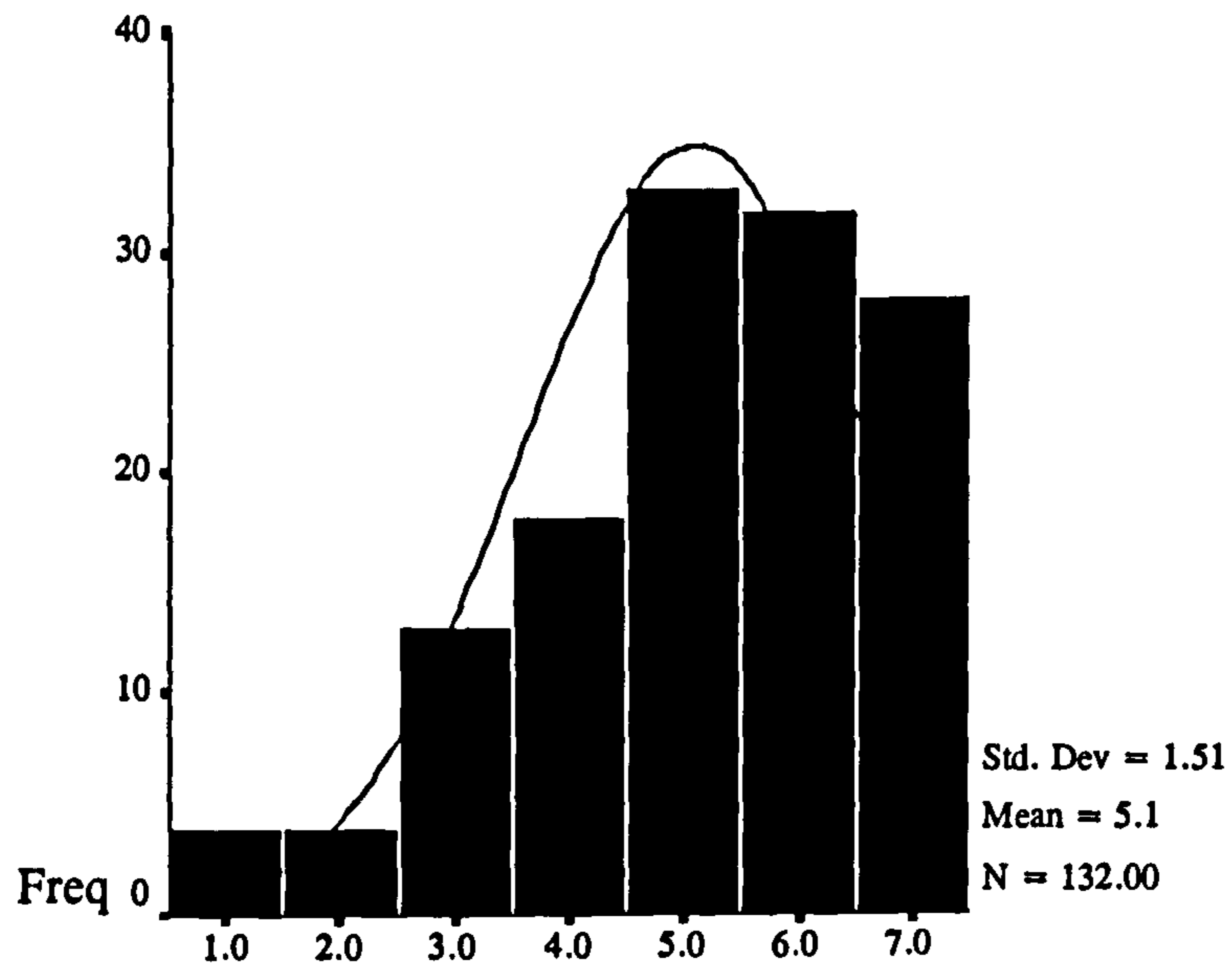
*Year 2: FP case - conflict*



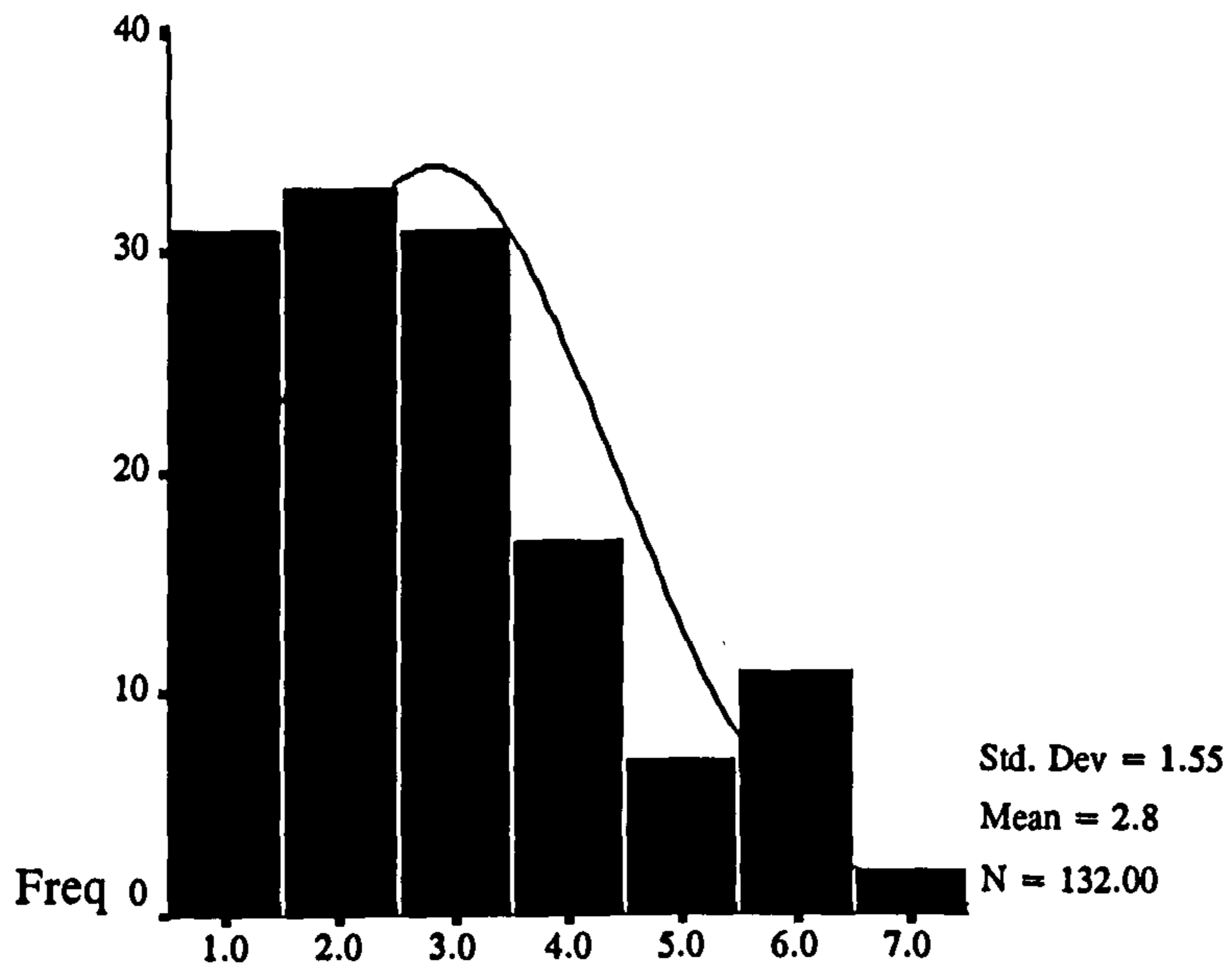
*Year 2: Audit sign-off - sum*



*Year 3: FP case - personal*

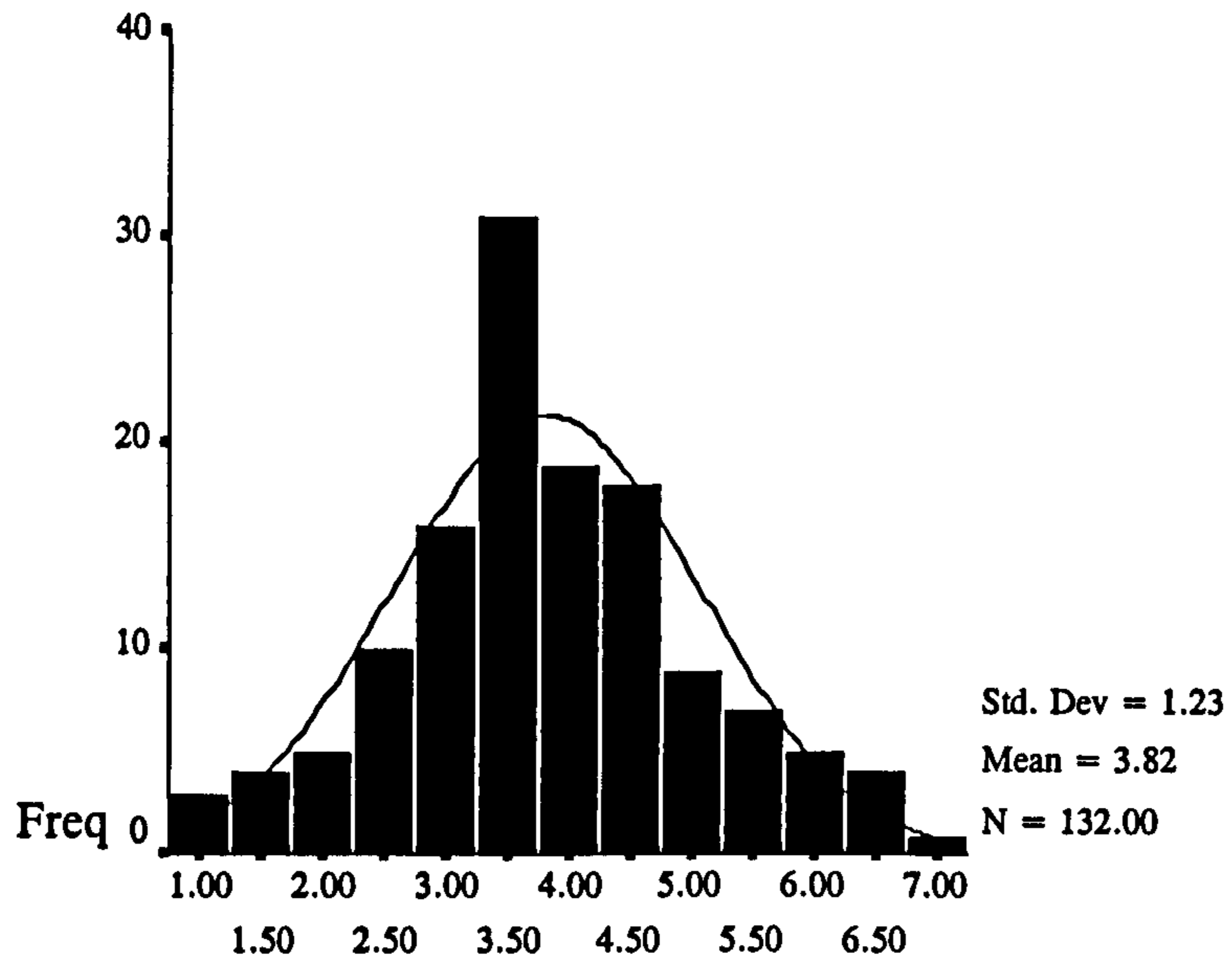


*Year 3: FP case - professional*

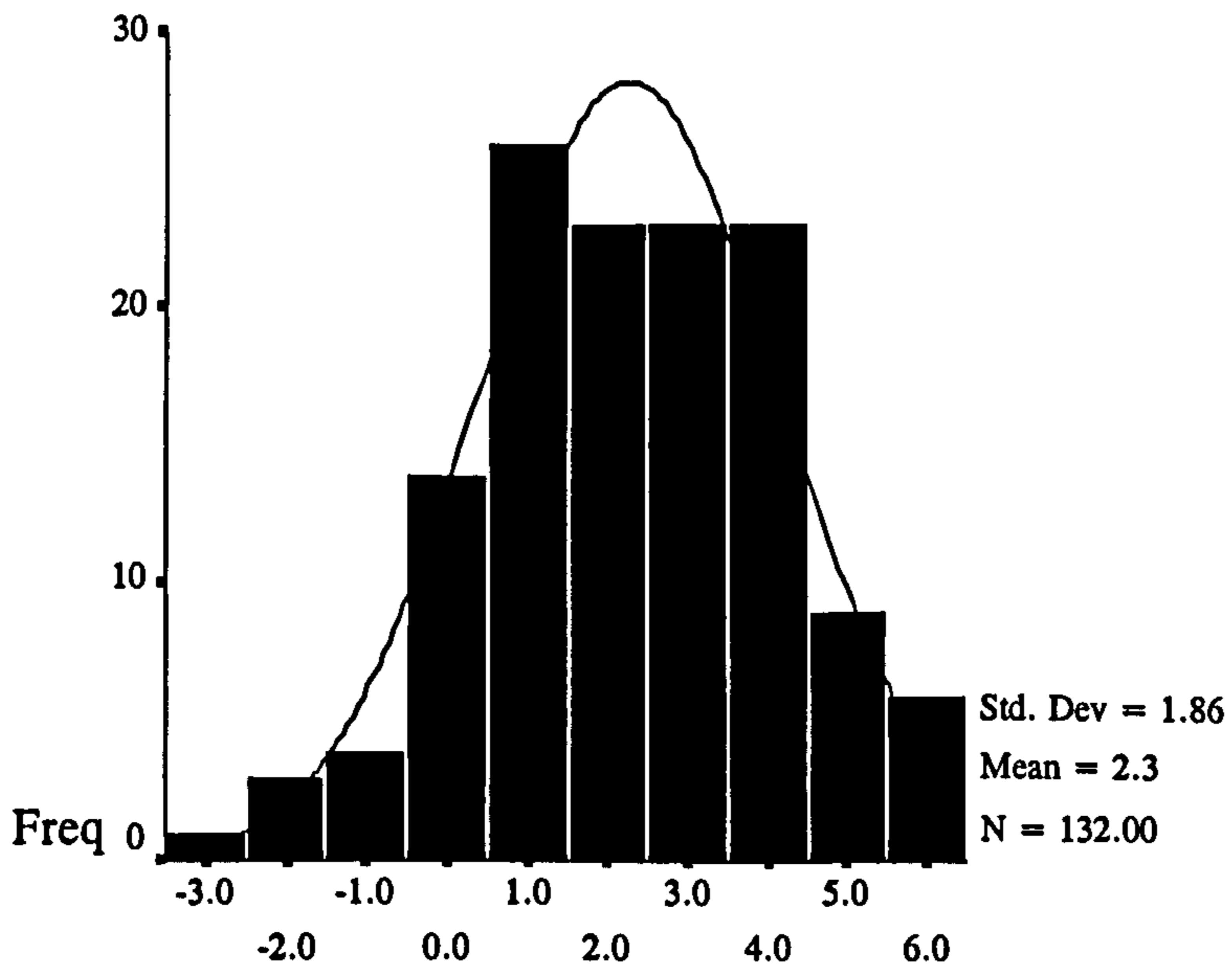




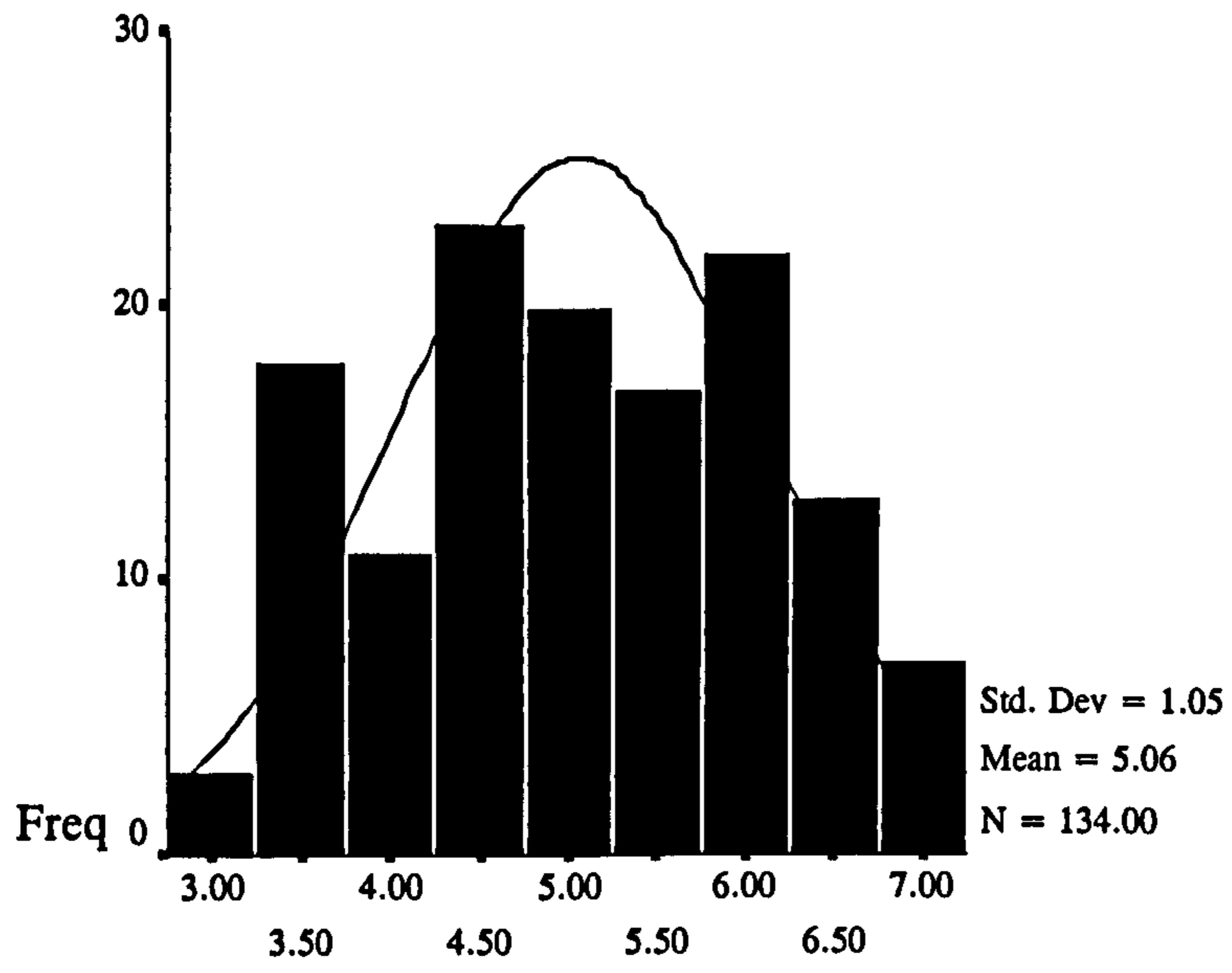
*Year 3: FP case - sum*



*Year 3: FP case - conflict*



*Year 3: Audit sign-off - sum*



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