

**Malleability of Cognitive Style
and its Implications for Management Practice**

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ABSTRACT

The study examined the extent to which cognitive style is fixed or malleable. It involved a comparison of cognitive styles between the Chinese and British nationals to determine the effect of culture on cognitive style. The study also sought to explore the effect of acculturation on the way individuals process information. The contribution of the present research is to increase knowledge of cognitive style and the acculturation process. It provides information for industry and education about how training and development strategies could be designed to improve the success of international assignments.

The research employed a multi-method methodology as a framework for the research. A longitudinal, quasi-experimental sample survey was conducted with 125 Chinese and 36 British subjects engaged in a postgraduate course in a British University. In this phase of the study, subjects completed the Allinson-Hayes Cognitive Style Index (CSI) twice over a six-month period. Based on these results, the research moved to Phase II to explore the relationship between cognitive style and a range of acculturation variables by adopting a cross-sectional sample survey and in-depth interviews. In the sample survey, interaction efficiency and acculturative stress were measured respectively by Ward's Sociocultural Adaptation Scale (SCAS) and Zung's Self-Rating Depression Scale (SRDS), and motivational orientation was measured by a range of self-developed questions. The final part of

this second phase adopted inductive methodology and contained 19 follow-up semi-structured interviews with specially selected participants to explore how cross-cultural experience could affect cognitive style.

Several key findings emerged from the research. First, differences were noted between home and Chinese subjects, and a further administration of the CSI after a period of six months showed a significant shift towards an analytical cognitive style for Chinese students but not for home students. This provided some support for the hypothesis that cognitive style is malleable. The pattern of change was not, however, consistent within the Chinese sample, and the overall change was not as anticipated. Second, past Western experience, pre-departure training and socialising with home nationals from motivational orientation were associated with the change in cognitive style. Third, while data from the sample survey do not support a correlation between interaction effectiveness and level of acculturative stress with a change in cognitive style, cross-cultural differences between the British and Chinese nationals were detected. This suggests that both nationals had different experiences which might influence their information processing style. Finally, results from interviews do point to possible directions for future research, e.g. perception of the host culture.

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Special thanks go to my parents. They had supported me for my Master course in 1998 and again kept on supporting me with this PhD journey. It was not only financially, but also spiritually rewarding. I hope I can make them proud.

Particular thanks are also expressed to Alex, my husband who has been there for me days and nights during these years and shown understanding, consideration, patience and confidence in me during the whole process.

Finally, thanks all my friends, 'blueberry' and 'little grey' who accompanied me through the whole process. Without you, this journey will be more lonely and tough.

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CHAPTER 1

INTRODUCTION

Cognitive style is an individual's preferred way of gathering, processing and evaluating information. It has become an important focus for research because it affects a wide range of issues including learning and performance. Research evidence indicates that there are cultural differences in cognitive style (Allinson & Hayes, 2000) which raise the possibility that cognitive style may affect the learning and performance of cross-cultural travelers when they are residents in a foreign culture.

Controversy exists in the debate over the malleability of cognitive style. Conventional definitions of cognitive style suggest that it is pervasive and consistent across areas of cognitive functioning. However, another school of thought argues that individuals can adapt strategies over a short time to generate the 'fit' between cognitive style and the information processing requirements of the tasks that confront them (Messick, 1976; Kogan, 1980; Robertson, 1985; Kirton, 1989).

Yet, another school postulates that cognitive style is malleable over the long-term. Evidence from Agor (1989) and Allinson and Hayes (1996) indicates that people who occupy senior positions in many occupations and organisations tend to share a cognitive style that differs from that which characterizes members at lower levels. This leads to the possibility that those with a particular cognitive style are selected

for senior positions and also that some individuals are able to modify their cognitive style over the long term in response to the requirement of their job positions. Evidence from Bagley's (1988) study of Jamaican immigrant children also reports that the children adapted their cognitive style over two years to become similar to their indigenous Canadian peer group.

The primary aims of this research are to further the understanding of cognitive style and, more specifically, to determine whether or not cognitive style is malleable and what factors might promote and prohibit the change in organisational situations. The context for the study is acculturation. Since China's fast development during recent years, after its open-door policy in the late 1970s, there has been huge increase in the number of Chinese citizens travelling and working in a different culture. This study investigates the malleability of cognitive style by examining how the cognitive style of Chinese postgraduate students is affected by their experience of the culture of the United Kingdom.

1.1 Background

Faced with the fast-changing and globalised business world, the co-operation of managers from different cultures is a key determinant of the success of the organisation. Within the process of international communication, the number of expatriates, as representatives of companies and the implements of company decisions, has been steadily increasing (Mervosh & McClenihan, 1997; Eschbach *et al*, 2001). Allinson and Hayes (2000) argue that an understanding of cross-

national differences in cognitive style is vital for effective work relationships in management. Over the long term, the only sustainable competitive advantage for the organisation may be the employees' ability to learn faster and interact more efficiently than its competitors.

Behavioural science is the mixture of sociology, psychology and anthropology, which respectively concern the social system, personality system and cultural system (Mullins, 1999). Human behaviour is so complex that we need to understand it from different angles. The way people behave in the world is a reflection of their perception of the world, their observation of themselves and their environment and their preferred cognitive style. In the business world, even the smallest advantage can give an organisation the edge over its competitors. For management, effective understanding and response to organisational culture offers many advantages, especially within the multinational context. Thus, an understanding of people's cognitive style within different cultural settings is an important issue and a fertile area for investigation in the context of the global village.

1.2 Significance of Cognitive Style and its Malleability

Cognitive style has been widely recognised by researchers as the individual's consistent differences in information processing (Messick, 1976; Hayes & Allinson, 1994; Riding & Rayner, 1998). Different people have different preferences in perceiving, thinking and doing things. This preferred way of gathering and handling information results in the individual's particular cognitive style.

Cognitive style research is relevant to the analysis of many fields of management practice and training and development. First, it is important in the analysis of individual-job fit. There is evidence which indicates that if the individual's cognitive style matches the information processing requirements of the situation or job, the individual will find it relatively easy to attend to and interpret relevant information and use it to decide how to act in order to perform effectively (Hayes & Allinson, 1998). This suggests that management can improve employees' performance by promoting individual-job fit practice. Individual-job fit can be positively affected by changes to either job or individual. Thus an individual-job fit can be achieved via two strategies. On the one hand, it can be improved by modifying or redesigning the job in order to change its information processing requirements and, on the other, by modifying the cognitive style of the individual to change his or her approach to information processing. The feasibility of the latter strategy will be determined by the extent to which cognitive style is malleable. If the above two strategies are difficult to apply, i.e. it is either difficult to modify the job or the individual, fit will have to be managed via selection or replacement.

Second, cognitive style research can benefit management practice by matching the learning (cognitive) style of trainees with the learning style orientation of learning activities. Several studies support the hypothesis that improving the fit between an individual's learning style and the learning activity can have a positive effect on learning outcomes (Mcleod & Adams, 1977; Root & Gall, 1979; Halpin & Peterson, 1986; Riding & Douglas, 1993; Allinson & Hayes, 1996). This in turn suggests that

the effectiveness of training interventions can be improved by either modifying the training intervention or the individual's learning (cognitive) style.

Third, cognitive style research is important for training and development practice by matching the learning (cognitive) style of trainees with the cognitive style of the trainer. Some evidence has shown that matching and mismatching the learning styles of trainees and trainers can affect learning outcomes (Beller, 1967; Packer & Bain, 1978; McDonald 1984; Allinson & Hayes, 1996). This evidence implicates that strategies for improving learning outcomes might involve modifying the cognitive style of either the trainer or the trainee. The alternative is to manage the composition of the training groups.

Fourthly, cognitive style research may consider the effect of group composition (in terms of cognitive style) on creativity and performance of work groups. There is evidence that homogeneity of cognitive style can affect processes of interaction in groups (Armstrong & Priola, 2001). The level of homogeneity of cognitive style can also affect levels of conflict in groups (Kirton, 1989) and creativity (Walsh, 1995). Matching the group composition to task and environment facing the group can have an effect on performance (Hayes & Allinson, 1998). All this evidence suggests that management practices to promote group performance might involve attending to group composition via selection or strategies designed to modify the cognitive style of targeted individuals.

Finally, cognitive style research may involve matching or mismatching the cognitive styles of leaders and subordinates. There is evidence that assigning intuitive leader

with analytic subordinate will create relatively warm and positive relationships (Allinson *et al*, 2001). This suggests that if the cognitive style is malleable, a suitable training can be provided to the flexibility of the leader's style to produce an appropriate way to deal with the subordinates.

In the above situations, when people with different cognitive styles are required to work together, the possibility of modifying an individual's cognitive style becomes important and the key to the group success. The malleability of cognitive style is the main issue to be considered. Generally speaking, cognitive style is recognised as pervasive and consistent across areas of cognitive functioning (Kagan *et al*, 1963; Witkin *et al*, 1967). But some researchers suggest that it may be malleable (Messick, 1976; Kogan, 1980; Robertson, 1985; Kirton, 1989; Rush & Moore, 1991; Nulty & Barrett, 1996; Riding & Rayner, 1998). Thus there is a definite need for more research on the malleability of cognitive style given that this would provide alternative strategies for improving individual and group performance, and improving the effectiveness of training and interventions.

1.3 Significance of Chinese Cross-Cultural Travellers

The difference between East and West has always been the subject of discussion. Studies based on mainland China, with its ongoing open door policy and increasing economic status, represent a new horizon in academic research. Over the past 20 years, there has been a rapid increase in the rate of inward investment in China as foreign companies have re-located their manufacturing activity in China or have

targeted the Chinese market for their goods and services. Foreign direct investment in China has increased at an annual average rate of 215% from 1985 to 1994 (World Bank, 1996). This has resulted in a range of organisational arrangements such as joint ventures, acquisitions, mergers and the opening of wholly owned enterprises that have involved foreign nationals working alongside Chinese managers and other local workers. Similarly, there has been a rapid growth of Chinese expatriate managers working overseas alongside other nationals. China's recent membership of the World Trade Organisation will further accelerate this trend of multinational cooperation in the Chinese economy. This in turn will increase the need for Chinese managers to relate with suppliers, customers and experts from Western economies.

There is evidence that there are cross-national differences in cognitive style and these differences could have important, possibly adverse, effects on performance (Tung, 1984; Abramson *et al*, 1993; Hoecklin, 1996; Allinson & Hayes, 2000). It might be possible to manage these effects in a number of ways, including modifying the cognitive style of some of the people involved. Thus there is a timely niche to explore the transformation and the malleability of the expatriates' cognitive/learning styles when they adapt to a new culture, especially in a business context and higher education settings.

1.4 Aims and Objectives

The primary aim of this study is to determine whether or not cognitive style is malleable. This will have important implications for training and development of individuals in the context of their work environment. The possibility of this change maybe be generalised and applied to other management field will be examined. Appropriate recommendations will then be made for improving such change.

A secondary aim of the study is to explore the factors that might influence cognitive style, and promote or prohibit change. The relationship between individuals' cognitive styles and their acculturative experience will be investigated. Recommendations will be made concerning individuals' cognitive styles and how they may be considered as a means of enhancing work performance through appropriate training.

The thesis is comprised of nine further chapters. Chapter 2 begins by providing a historic overview of the origins and development of the concept of cognitive style. Various definitions of cognitive style/learning style are outlined and a wide range of popular dimensions of cognitive style are identified. A discussion is presented which supports the idea that the wide range of popular dimensions identifying cognitive differences are merely different conceptions of a super-ordinate dimension. It then is concerned with reviewing contrasting theoretical arguments over whether or not cognitive style is malleable. Some report that cognitive style tends to be stable over years. Others believe that styles change in a natural manner with age,

that style is shaped by learning environment, work environment and cultural environment. The controversy of views in this area are analysed and discussed.

Chapter 3 is concerned with providing an overview of the concept of acculturation. Definitions of acculturation are outlined and various theories and dimensions of acculturation are provided. Factors affecting acculturation are presented based on the review of the literature. Research designs and measurement instruments to study acculturation are provided. Finally, the chapter concludes with a reasoned argument leading to the research question model.

Chapter 4 provides the summary of research questions and propositions.

Chapter 5 contains a detailed discussion of the methods employed in the present research. The key justification of choices and issues in research design are evaluated. Research design of this study is presented. Target populations and sampling criteria are discussed and details of the organisations and the participants in the study are given. Measurement and data collection strategy and method of data analysis adopted in the present study are considered. The study variables are operationally defined and the methods of measuring these variables to test the research hypotheses are discussed with the reliability and validity of instruments used. The choices of parametric statistics, which include the use of Pearson correlations for measuring the strength between variables and t-test for testing the difference between two means for significance, are justified.

Chapter 6 contains the results of sample survey A of the present study. Results are presented and analysed to test the hypotheses suggesting that cognitive style is malleable. A comparison of results for the two sample populations from China and Britain is also made to determine whether results can be generalised across other national populations. Results are then presented and analysed to test the carryover effect of adopting one instrument for more than one time in the research. Finally, secondary findings are reported and examined.

Chapter 7 contains the results of sample survey B of the present study. Results are presented and analysed to test the hypotheses suggesting that certain variables might be associated with cognitive style.

Chapter 8 is concerned with the data collection strategy, method of data analysis adopted in semi-structured interviews of the present study.

Chapter 9 contains the results of in-depth interviews of the present study. Interview results are presented and analysed to support and extend the sample survey results. Secondary findings are also reported.

Chapter 10 presents the discussion of the results. Attention is paid to the research hypotheses developed in chapter 4 and 5 to discuss whether they were supported. The contribution of outcomes of the study to existing knowledge is also reviewed. Conclusions and implications of the study are then presented with practical recommendations offering potential benefactors of the study. Finally, limitations of the study are acknowledged and directions for future research are suggested.

CHAPTER 2

COGNITIVE STYLE

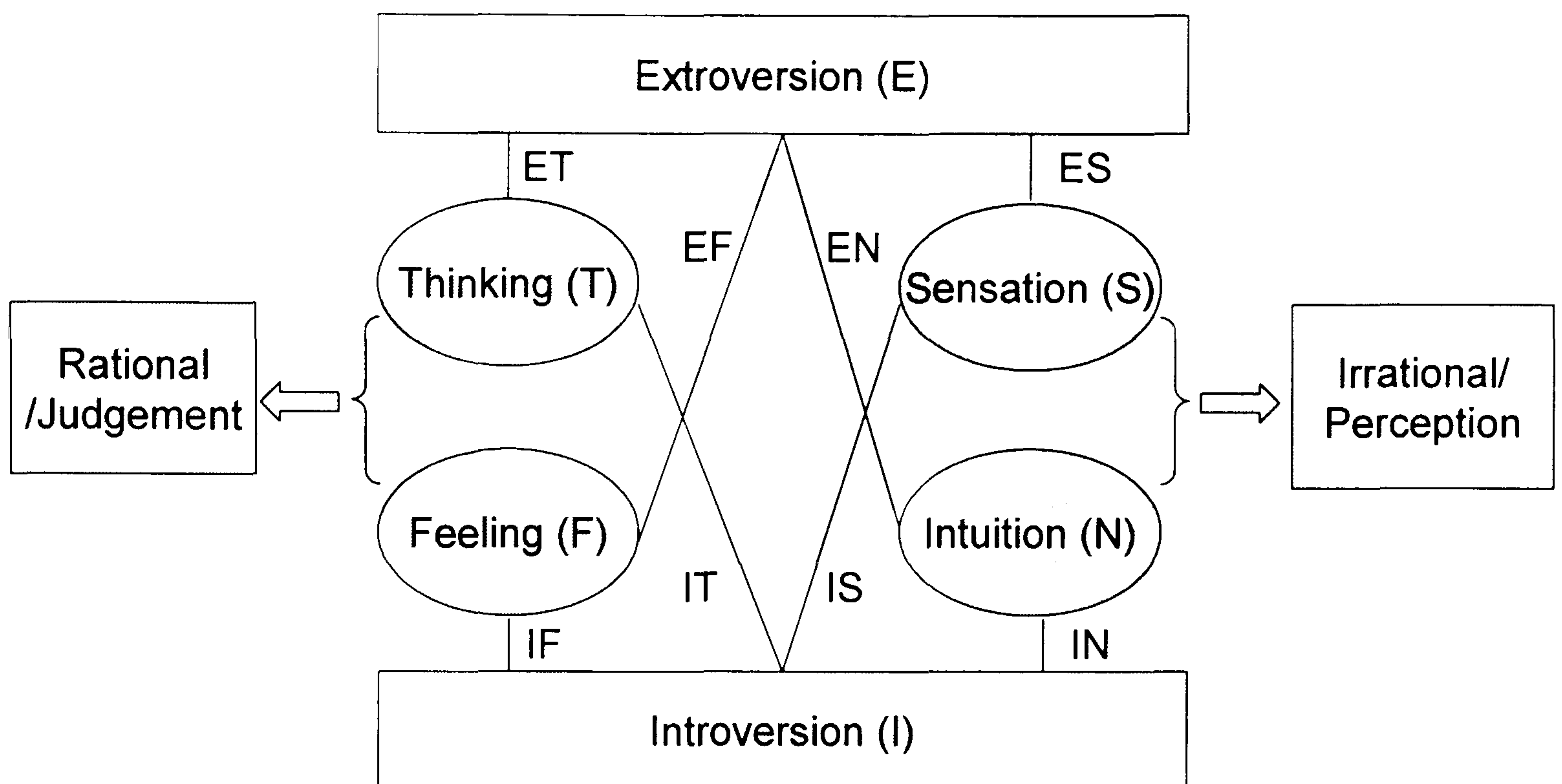
This chapter looks back to the research roots and discusses important milestones for the origins and development of cognitive style theory. It then narrows to the research of cognitive style which is most relevant to the current study with a focus on the malleability of cognitive style. With critical judgement of the literature, a research gap is identified and general research questions are also accordingly developed.

2.1 Theoretical Development of the Cognitive Style Concept

In the 1920s, Lewin (1923, p226) defined differentiation as ‘a function of the conditions of the environment as well as of the individual peculiarities of the person.’ Lewin (1923) defined the general law of Psychology, stating that a person’s behaviour B is a function of a person’s personality P and environmental situations E ($B = f(PE)$). This theory produces significant insights into the relationship between individual characteristics and environmental factors, and influenced later researchers. The environment refers not only to physical environment like directions and distances, but also to psychobiological factors such as quasi-physical, quasi-social and quasi-mental structure. Lewin’s theory and work

have been applied and extended by other researchers in later years (Witkin *et al*, 1962; Kagan *et al*, 1963; Kolb, 1981).

In the 1920s, the famous European psychoanalyst Carl Jung (1923) provided a model of cognitive styles or personality types. He believed that people naturally pick up their own preference types to understand things and can be divided into two basic groups with different personality or attitude types: the introverted and the extroverted. Under these two basic psychological types, Jung identified four further essential 'functions types': thinking, feeling, sensation and intuition. Each of these four functions types can also be either introverted or extroverted. With more focus on the judgement, the types of thinking and feeling fit in the rational dimension, while sensation and intuition belong to an irrational dimension depending heavily on perception. Jung (1923, p406) argued that 'the auxiliary function is possible and useful only in so far as it serves the dominant function, without making any claim to the autonomy of its own principle.' There are thus eight subcategories developed and these correspond with the rational and irrational dimension. The eight types are Extrovert Feeling (EF), Extrovert Thinking (ET), Introvert Feeling (IF), Introvert Thinking (IT), Extrovert Sensation (ES), Extrovert Intuition (EN), Introvert Sensation (IS) and Introvert Intuition (IN). The first four types (ET, EF, IT, IF) link to the rational way of information processing while the latter four (EI, ES, IN, IS) to the irrational manner (see Figure 2.1). Jung's work and theory have had a great impact on later researchers, e.g. Myers (1962) and Kolb (1976).

Figure 2.1 Jung's Model of Cognitive Style and Personality Type

Woodworth (1929, cited in Allport & Vernon, 1933, p5) connected the concepts of personality and individual difference and argued that individual difference was due to the personality revealed in the way in which an individual talks, remembers, thinks, or loves. In the 1930s, Allport and Vernon (1933) introduced the idea of style into the discussion of individual differences. They regarded their study of expressive movement as relating to individual differences in the manner of performing adaptive acts, i.e. their proposal was that adaptive acts are less dependent upon external and temporary conditions than upon enduring qualities of personality. They believed that the person is the fundamental and unique unit of all activities including verbal, artistic and economic; and that the individual style expresses that fundamental uniqueness (Allport, 1937). Based on his observations on how people perceive the environment, which includes music, painting and even food, Allport (1937) introduced the term 'style' into psychological research and regarded it as the

most complex form of expression. Gardner *et al* (1959, cited in Wallach, 1962) acknowledged Allport as pioneer in the tradition of cognitive style research.

In the 1960s, Wallach (1962), Gardner (1962) and Hodson (1968) developed the definition of cognitive style and linked together the concepts of individual style, thinking and behaviour. Since 1970s, emphasis of the research was further developed and applied in pedagogy setting (Sternberg & Grigorenko, 2001). Cognitive style was further developed and has been widely recognised by researchers as the individual's consistent differences in information processing (Kogan, 1971; Messick, 1976, p5; Allinson & Hayes, 1994, p54; Riding & Rayner, 1998). Witkin (1977) pointed out that cognitive style has more consideration for the manner rather than the content of an activity, i.e. there are individual differences in how people perceive, think, solve problems, learn and relate to others. It relates to how information is processed rather than the content of the information that is processed.

In the recent 20 years, reviews on cognitive style and learning style have been attempted by many researchers due to the fact that previous researchers worked in their own contexts, in isolation from one another, developed their own instruments for assessment and labelled their own dimension with little reference to the work of others (Curry, 1983; Riding & Cheema, 1991; Allinson & Hayes, 1994; Riding & Rayner, 2002; Armstrong, 1999; Cassidy, 2004; Coffield *et al*, 2004; Desmedt & Valcke, 2004).

2.1.1 Cognitive Style and Learning Style

Confusion exists over the concepts of learning style and cognitive style for many years. Four different attitudes of arguments have been attempted to contribute to the nature of individual information processing style. First, some researchers (Entwistle, 1981; Campbell, 1991; Riding & Cheema, 1991; Coffield *et al*, 2004) argue that these terms are used very loosely and interchangeably. Riding and Cheema (1991) claim:

‘The terms cognitive style and learning style have been much used by theorists, but what they mean still remains very much up to its author.’

Second, another school of thoughts believes that cognitive style is different from learning style and can only be considered as a sub-component of learning style (Dunn & Dunn, 1993). With the argument that learning style is a biological and developmental set of personality characteristics, Dunn and Dunn (1993, p2) remark that:

‘...learning style is more than merely whether a child remembers new and difficult information most easily by hearing, seeing, reading, writing, illustrating, verbalizing, or actively experience; perceptual or modality strength is only one part of learning style. It also is more than whether a person process information sequentially, analytically, or in a ‘left-brain’ mode rather than in a holistic, simultaneous, global, ‘right-brain’ fashion; that, too is only one important component of learning style. It is more than how someone responds to the environment in which learning must occur or

whether information is absorbed concretely or abstractly; those variables contribute to style but, again, are only part of the total construct.'

With more than twenty years' work, Dunn and Dunn (1993, p3) argue that there are twenty-one elements in five individuals' learning stimuli and the fifth category of the stimuli (processing inclinations) relates to the cognitive style. They are:

1. immediate environment (sound, light, temperature, and furniture/eating designs);
2. emotionality (motivation, persistence, responsibility, and need for either externally imposed structure or the opportunity to do things in their own way);
3. sociological preferences (learning best alone, in a pair, in a small group, as part of team, or with either an authoritative or a collegial adult; and wanting variety as opposed to patterns and routines);
4. physiological characteristics (perceptual strengths, time-of-day energy levels, and need for intake and/or mobility while learning); and
5. processing inclinations (global/analytic, right/left, and impulsive/reflective).

Third, another school acknowledges that learning style has more rigid meaning and it mainly focus on the information processing style in learning environment and learning activities (Claxton & Ralston, 1978; Riding & Rayner, 2002). Claxton and Ralston (1978) define learning style as a student's consistent way of responding to and using stimuli in the context of learning. As the precursor of learning style,

cognitive style has a wider concern about how information can be processed in a wider variety of settings, rather than just the learning context.

Riding and Rayner (2002, p51) went on to argue that ‘learning style is an individual set of differences that include not only a stated personal preference for instruction or an association with a particular form of learning activity but also individual differences found in intellectual or personal psychology.’ While the two terms of learning style and strategy are used interchangeably by some authors (Cronbach & Snow, 1977), Sternberg and Grigorenko (2001) and Riding and Rayner (2002) also distinguish the term learning style and strategy. The former refers to individuals’ fix trait while the latter are generally used for more tasks- and context-dependent situations.

Finally, some researchers attempt to make sense of the confusing field and review the origin and development of cognitive style and learning style (Curry, 1983; Vermunt, 1998; Riding & Rayner, 2002; Coffield *et al*, 2004). In Curry’s model (1983, see Figure 2.2), the inner layer of cognitive personality style is more stable and significant in complex learning, while the outer layer of instructional preferences is easier to modify and influence, but less important for learning. More recently, Coffield *et al* (2004) summarised a continuum of learning style and claim that their continuum is based on the extent to which the developers of learning styles models and instruments appear to believe that learning styles are fixed (see Figure 2.3).

2.1.2 Definitions of Cognitive Style

Researchers such as Witkin (1974), Messick (1984), Campbell (1991), Allinson & Hayes (1994; 1996); Riding and Rayner (1998) and Coffield and co-authors (2004) found that, in the extensive area of cognitive/learning styles, there have been a large number of overlapping and ill-defined definitions of the styles that it led to a confusing misuse of the term cognitive style and learning style as synonym.

Some of the main definitions of cognitive style from different researchers are shown in Table 2.1, while Table 2.2 illustrates definitions for learning styles. As seen in Table 2.1 and 2.2, all definitions of cognitive style and learning style listed help people in some ways to process information. Learning style refers mainly to learning process while cognitive style has a wider application.

Table 2.1 Definitions of Cognitive Style

Year	Author	Definitions of Cognitive Style
1962	Wallach	Someone who reacts in one manner in one situation will react in a particular characteristic way in another (p199).
1962	Gardner	Cognitive controls or cognitive control principles are the individual consistencies in perception, thinking, remembering, concept formation, attention deployment, etc. (p183).
1963	Kagan <i>et al.</i>	Stable individual preferences in mode of perceptual organization and conceptual categorization of the external environment (p74).
1968	Hudson	The ways, in which people think, in the frames of mind they characteristically adopt... These differed not only in the bias of their mental abilities, but also in their choice between the arts and sciences, in their interests and attitudes, and in their expression of emotion (p1).
1971	Kogan	Cognitive style can be most directly defined as individual variation in or modes of perceiving, remembering, and thinking, or as distinctive ways of apprehending, storing, transforming and utilizing information... Cognitive styles give more weight to the manner and form of cognition (p244).
1976	Witkin	Modes of functioning that we reveal throughout our perceptual and intellectual activities in a highly consistent and pervasive way (p39).

-
- 1978 Goldstein & Blackman Cognitive style relates to the characteristic (habitual) way in which an individual processes and evaluates information- that is solves problems and makes decisions (cited in Armstrong, 1999, p24).
-
- 1976 Kogan The manner (in which) individuals acquire, store, retrieve and transform information (p105).
-
- 1976 Messick Consistent individual differences in the ways of organising and processing information and experience (p4-5).
-
- 1981 Witkin & Goodenough A pervasive dimension of individual functioning, showing itself in the perceptual, intellectual, personality, and social domains, and connected in its formation with the development of the organism as a whole; individual differences in process rather than content variables; people's standing on the dimension is stable over time (p57).
-
- 1986 Harre & Lamb Cognitive style can be defined as an individual's characteristic and consistent manner of processing and organising what he sees and thinks about (cited in Armstrong, 1999, p24).
-
- 1988 Kirton & McCarthy Individuals have characteristically different styles of creativity, problem solving and decision making (p176).
-
- 1988 Tennant An individual's characteristic and consistent approach to organising and processing information (p80).
-
- 1998 Riding & Rayner An in-built and automatic way of responding to information and situations. It is probably present at birth or at any rate is fixed early on life and is thought to be deeply pervasive, affecting a wide range of individual functioning. A person's cognitive style is a relatively fixed aspect of learning performance and influences a person's general attainment or achievement in learning situations (p7). It is seen as an individual's preferred and habitual approach to organising and representing information (p8).
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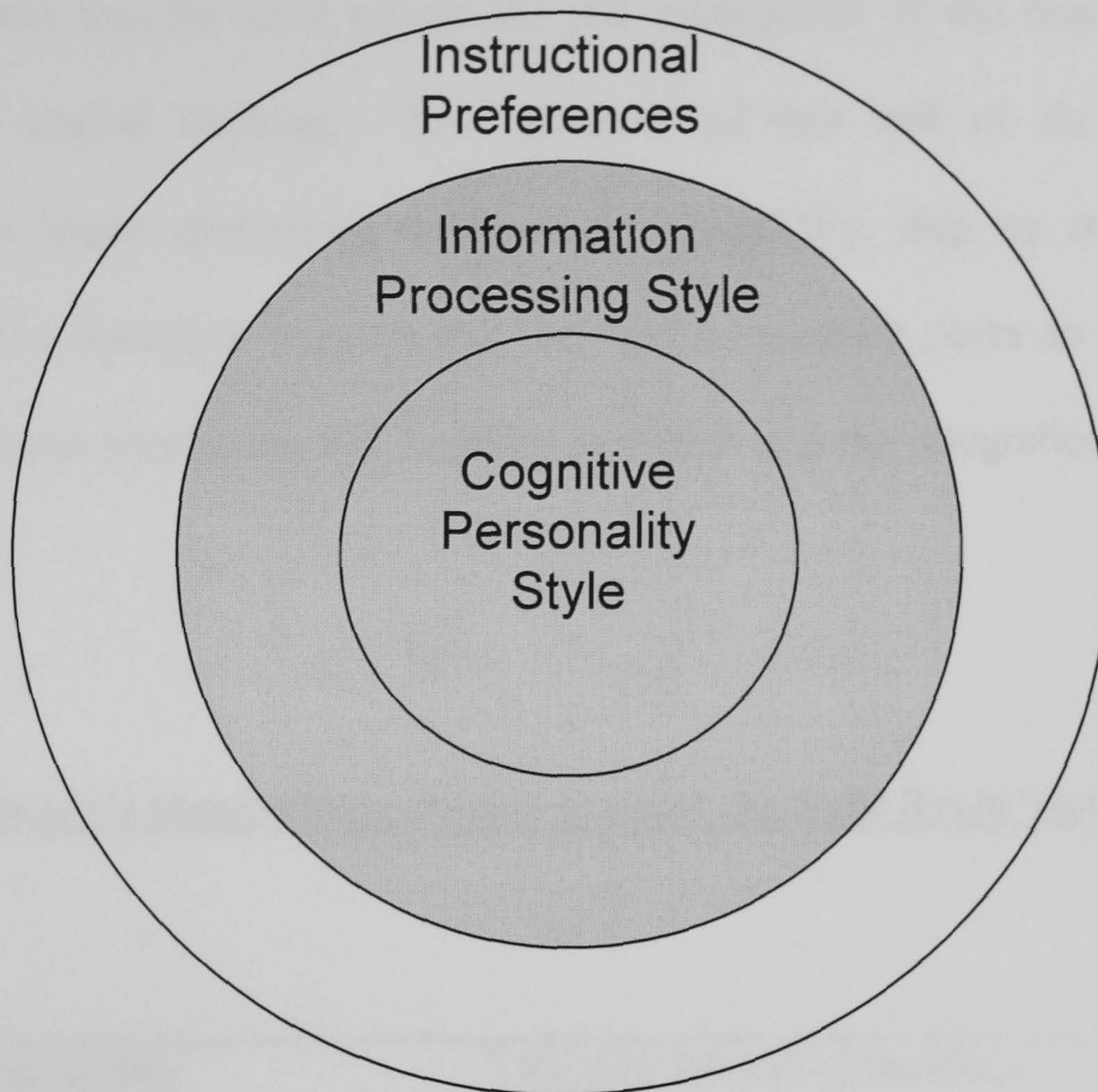
2.2 Dimensions of Cognitive Style

2.2.1 Models of Cognitive Style

Hayes and Allinson (1994) reviewed the literature and identified 29 dimensions of cognitive style. Based on their categories, Armstrong (1999) extended this list to 54. More recently, Coffield and colleagues (2004) identified 71 dimensions, but remarked that while most of many models consist of minor adaptations of one of the leading models, they identified 13 out of 71 dimensions which could be considered as major leading dimensions with a crucial impact in the field.

Curry (1987) reviewed the psychometric qualities of different learning styles instruments and categorised them according to the three-layered 'onion' model (see Figure 2.2). These categories are 'instructional preferences,' 'information processing style' and 'cognitive personality style.' In Curry's model, the inner layer (cognitive personality style) is suggested to be more stable and more significant in complex learning; while the outer layer of instructional preferences is easier to modify and influence, but less important in learning.

Figure 2.2 Curry's 'Onion' Model of Learning Styles



Hayes and Allinson (1994) identified three approaches to classify cognitive styles. These are on the basis of: (a) analytic-holistic superordinate structures, (b) the relationship between styles and cognitive process, and (c) functional distance of styles from the ability domain. They suggest that the most widely recognised distinction is that between analytical and intuitive style, which is often associated with the specialist functions performed by each hemisphere of the human brain. The pioneering studies of Sperry (1973) and Ornstein (1977) proposed the connection between hemispheric preference theory and the cognitive functioning. They suggest that the left and right halves of the human brain associate with two different categories of thinking and the neurological activity. This split brain model has been seen by many researchers as providing a useful metaphor for explaining different

information processing or cognitive styles. In this sense, cognitive style can be understood as a single continuum. While thinking involves multiple brain areas, the metaphor suggests that for most people the left hemisphere of the brain plays a crucial role in logical thinking. The operation of this half of the brain is characterised as linear, processing information sequentially, step by step, in an ordered way. The metaphor suggests that the right hemisphere plays an important role in simultaneous processing that facilitates synthesis and the integration of many inputs at once.

Table 2.3 Sperry’s Hemispheric Preference and the Split Brain Metaphor

LEFT BRAIN (analytic)	RIGHT BRAIN (intuitive)
Logic	Synthesis
Linear processing	Simultaneous processing
Focus on detail	Assessment of the whole

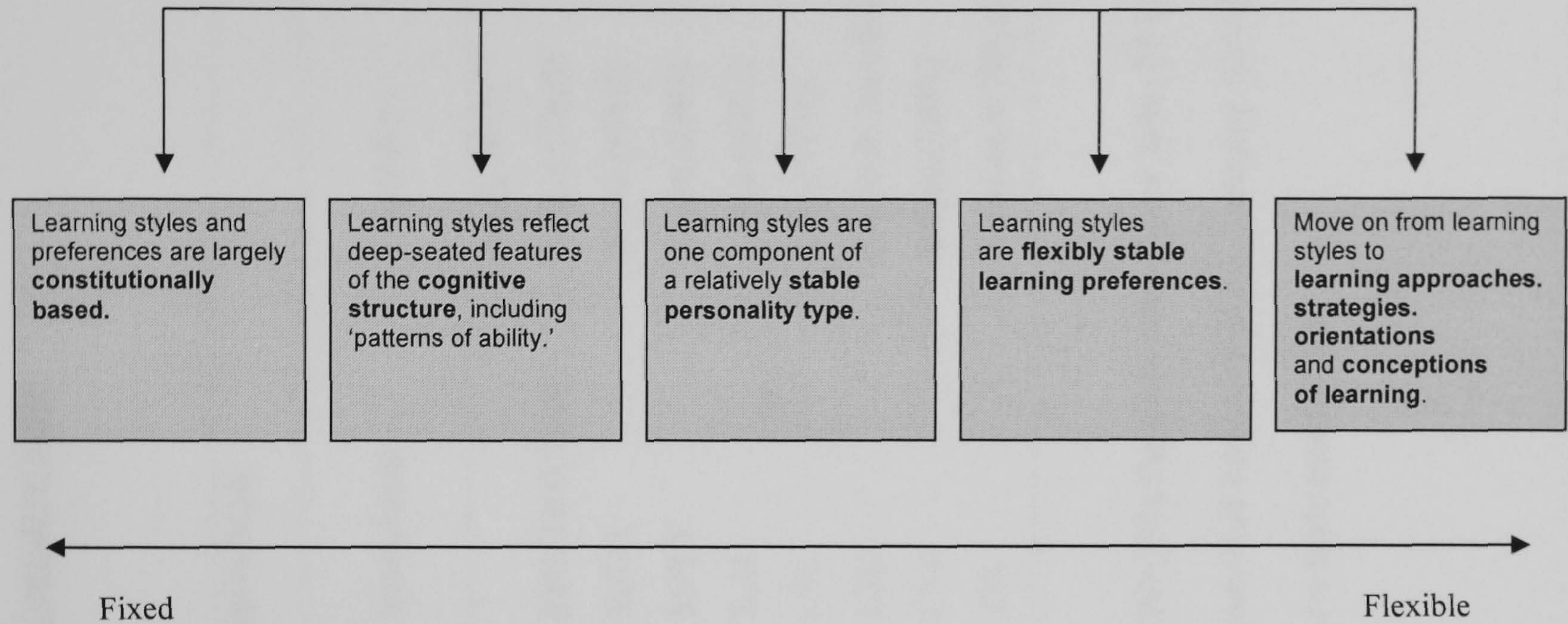
Wilson (1988) developed this theme and connects it with the constructs of cognitive style (see Table 2.4). Although the formulation is now considered as an oversimplification in neurological terms (Rao *et al*, 1992; Coffield *et al*, 2004), it still provides a useful metaphor to describe cognitive differences.

Table 2.4 Wilson’s Classification
of Styles according to the Split Brain Typology

LEFT BRAIN	RIGHT BRAIN
Field independent	Field dependent
Reflective	Impulsive
Receptive/systematic	Preceptive/intuitive
Focuser	Scanner
Serialist	Holist
Converger	Diverger
Splitter	Lumper

More recently, Coffield and colleagues (2004) reviewed 71 models of learning style and develop their continuum based on the extent to which the developers of learning styles models and instruments appear to believe that learning styles are fixed (see Figure 2.3). At the left end of the continuum, researchers strongly believe the influence of genetics on fixed, inherited traits and about the interaction of personality and cognition. At the right end of the continuum, theorists place more emphasis on personal factors such as motivation, and environmental factors, and the effects of the environment on the individual’s cognitive style.

Figure 2.3 Coffield *et al*'s Families of Learning Styles



Source: Coffield *et al* (2004, p9).

2.2.2 A Superordinate Dimension of Cognitive Style

If cognitive style can be regarded as a ruler to categorise individual's preferred style to process information, where X and Y define the scales of cognitive styles, many researchers have tried to mark their own scales on this ruler and design their own instruments to measure the different types for various purposes and within different contexts (Table 2.5), e.g. 'impulsive/reflective,' 'adaptor/innovator,' 'field dependence/independence,' 'intuitive/analytic,' and 'wholist/imaginary-analytical/verbal.'

Table 2.5 The Dimensions of Cognitive Style

The Dimension of Cognitive Style

	X	Y	Instruments	Researchers
Extroversion		Introversion		Jung (1923)
Field dependent (FD)		Field independent (FI)	RFT/TRTC/EFT	Witkin (1962)
Sensing/Intuition		Thinking/Feeling	MBTI	Myers (1962)
Impulsive		Reflective	MFFT	Kagan (1964)
Innovative		Adaptive	KAI	Kirton (1976)
Reflective/Active		Concrete/Abstract	LSI	Kolb (1976)
Activist/Reflector		Theorist/Pragmatist	LSQ	Honey & Mumford (1982)
Wholist/Imagery		Analytic/Verbal	CSA	Riding (1991)
Intuitive		Analytical	CSI	Allinson & Hayes (1996)

Note: Abbreviations: Rod-and-Frame Test (RFT), Tilting-Room-Tilting-Chair Test (TRTC), the Embedded-Figure Test (EFT), Myers-Briggs Type Indicator (MBTI), Matching Familiar Figures Test (MFFT), Kirton's Adaptation/Innovation Inventory (KAI), Learning Style Inventory (LSI), Learning Styles Questionnaire (LSQ), Cognitive Styles Analysis (CSA) and Cognitive Style Index (CSI).

Some theorists (e.g. Globerson & Zelnikier, 1989; Streufert & Nogami, 1989) suggest that the multiplicity of different constructs reflects the complexity of cognition. On the other hand, Robey and Taggart (1981, p375) argue that the various dimensions are simply different conceptions of the same dimension, the poles of which reflect 'the dual nature of human consciousness.' Nickerson *et al* (1985) offer support for assertion that there is a superordinate dimension of cognitive style and they suggest that one pole is best described as analytic, deductive, rigorous, constrained and formal while the other can be described as synthetic, inductive, expansive, unconstrained, divergent, informal, diffuse and creative. Ornstein (1977, p12) also refers to two major modes of consciousness: analytic, which implies viewing the individual parts of a situation in sequence, and holistic, which refers to viewing the whole situation at once. He also suggests that these two modes of consciousness reflect the rational and intuitive sides of a person.

Miller (1987) integrates different types of constructs in a super-ordinate 'analytic-holistic' dimension: sharpening, field independence, analytic/verbal, convergence, serial processing is found in the pole of analytic style while levelling, field dependence, analog/visual, divergence, holistic are in the pole of holistic style. Based on the evidence from Storr (1973) and McCaully (1981), Miller (1991) asserts that individuals who are analytical in perceptual style would also be analytical in memory and thought. He therefore argues that Jung's two functional dimensions (sensation-intuition and thinking-feeling) do not represent differences in perception and judgement, and that perception and judgement do not lie on orthogonal dimensions. Miller (1991) thus proposes that 'a more reasonable

formulation would be to contrast sensation/thinking (analytical style) with intuitive/feeling (holistic style)' (p 218-219).

While the two Myers-Briggs bipolar dimensions, judgement (which ranges from thinking to feeling) and perception (which ranges from sensing to intuition), are often presented as separate aspects of cognitive style, Hunt *et al* (1989) argue that this does not support idea of dual dimensions since the majority of individuals are either consistently analytic or intuitive in both information gathering (perception) and information evaluation (judgement). Hunt *et al* (1989) report studies to support this argument: Behling *et al* (1980) and Henderson and Nutt (1980) found effects on only one of the stylistic dimensions and Keen (1973) suggest that data gathering (perception) and decision making (judgement) are not independent dimensions. The evidence appears to suggest therefore that both the Jungian personality type theory and the Myers-Briggs indicator model (adapted from Jung's theory) may well provide a more convincing underpinning for a superordinate rather than a multi-dimensional concept of cognitive style.

Another argument in favour of the unidimensionality of cognitive style is Simonton's (1980) conditional probabilistic associations conceptualisation based on cognitive style and cognitive ability. Simonton (1980) proposes a single dimension of conditional probabilistic associations, which embraces both conscious analysis and infra-conscious automatic associative processing (intuition). The strength of an association is determined by experiential factors. If events X and Y have rarely occurred together, the mental association will be weak. If, on the other hand, event X and Y nearly invariably take place together, the association will be strong. He

then defines four probability thresholds of attention, behaviour, cognition and habituation which prescribe the psychological consequences of any given association (e.g. whether it will be nonconscious, infraconscious, conscious, or ultraconscious, respectively).

Simonton (1980) also argues that an important difference between information processing at the infra-conscious (intuitive) and conscious (analytic) level is associated at the conscious level to the way we use language and other symbolic processing to conceptualise and communicate knowledge. He asserts that this symbolic processing requires a higher level of abstraction than behavioural processing and that this restrictive nature of symbolic processing affects the acquisition of knowledge and competence. Language and other symbolic processes (such as mathematics) consist of discrete symbols that can only be permuted in a number of ways to constitute higher order concepts and therefore mediate the probability level of consciousness. He believes that it is the distribution of conditional probabilities that determines whether intuitive or analytical thinking will predominate.

Based on all the aforementioned different formulations and literature, section 2.2.2 will focus on a selection of the most frequently cited constructs that are representative of the Analytical-Intuitive dimension.

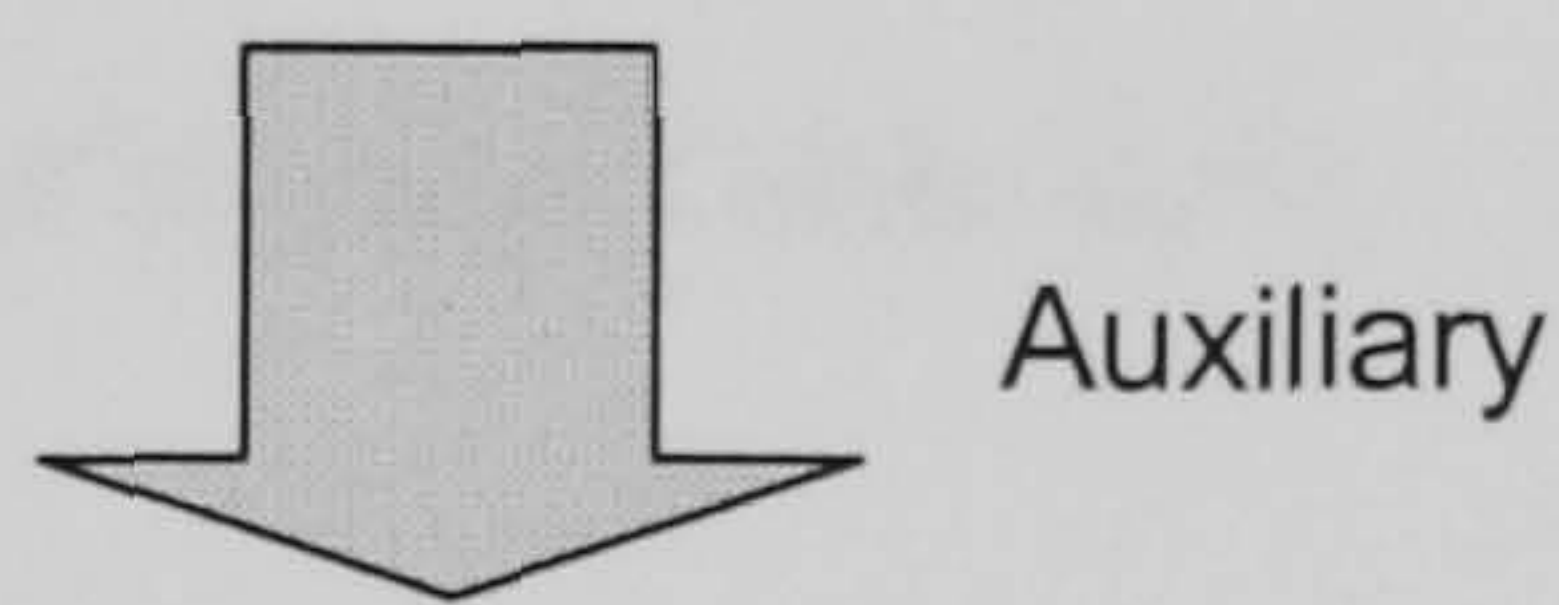
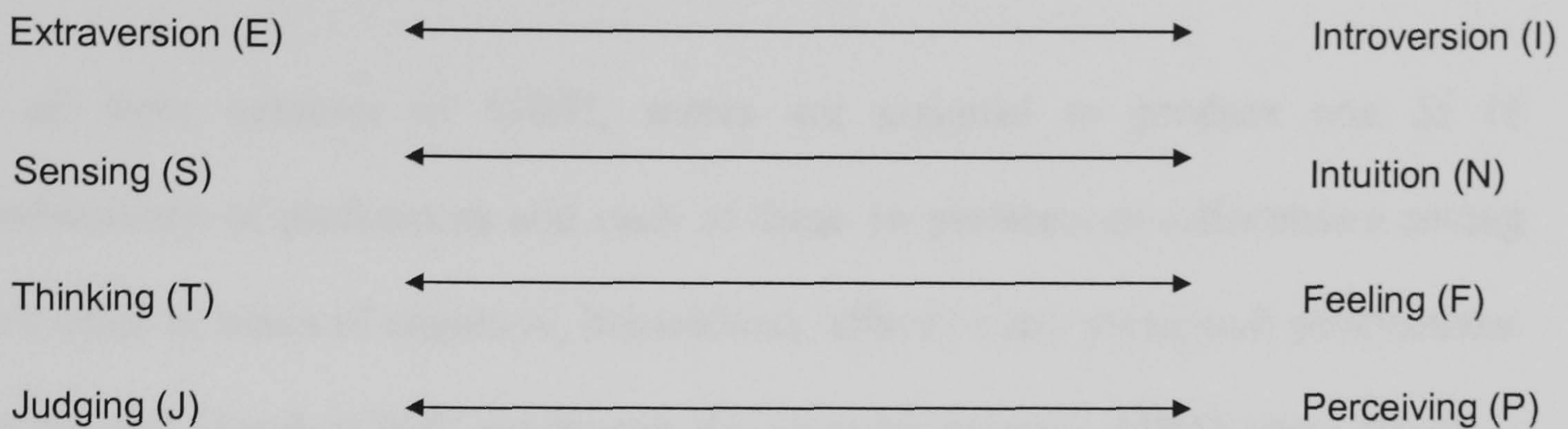
2.2.2.1 The Myers-Briggs 16 Personality Types

Based on Jung's early work, Isabel Myers (1962) developed a measure of cognitive style called the Myers-Briggs Type Indicator (MBTI). The MBTI extended and redefined the Jungian concepts of 'rational' and 'irrational' and referred to them as 'judgement' and 'perception' respectively. The instrument has a series of questions associated with four bipolar discontinuous scales: extraversion and introversion, sensing and intuition, thinking and feeling, and judging and perceiving (see Figure 2.4). Myers also proposed the possible mixing of the different function types from Jung (1923) so that the possible matching of various types results in Myers' 16 distinct personality types (Myers, 1962; see Figure 2.4).

Following Jung's proposal, Myers' theory shares the idea that learning style is one part of the observable expression of a relatively stable personality type. Even though some researchers (e.g. Bayne, 1994) stress the versatility of individuals to move beyond their dominant function to exploit or develop 'auxiliary preferences,' both Jung and Myers believed that personality type should become dominant by adulthood and this versatility would be restricted by the individual's strong and habituated preferences (Coffield *et al*, 2004).

Myers promoted her theory from a purely academic context to a wider audience in organisations, high schools and in the field of counselling and marital relations. As such, the MBTI has been widely accepted as a research instrument and one of most

Figure 2.4 16 MBTI Personality Types



ISTJ	ISFJ	ISTP	INTP
INTJ	INFJ	ISFP	INFP
ESTJ	ESFJ	ESTP	ENTP
ENTJ	ENFJ	ESFP	ENFP

Source: Coffield *et al* (2004, p48).

popular personality measures, and has been translated into a number of languages (Furnham & Stringfield, 1993).

There are three versions of the MBTI varying according to length of the questionnaire. The longest, Form G (Myers & McCaulley, 1985), contains 126 items. The standard version of the MBTI is 93-item Form M (Myers & McCaulley, 1998) and the abbreviated version has 50 items. The standard version of MBTI

Form M contains some improvements: the structure of the instrument (in that all items have only two response options), the introduction of Item Response Theory (IRT) scoring and standardisation based on a large group of adults (n=3009).

In all three versions of MBTI, scores are assigned to produce one of 16 combinations of preferences and each of these 16 preferences differentiate among each other in terms of cognitive, behavioural, affective and perceptual perspectives. Thorne and Gough (1999) summarise the 10 most common MBTI types based on their positive and negative aspects in traits (see Table 2.6).

Coffield *et al* (2004) argue that reliability co-efficients for the MBTI are high for individual pairs of scores relating to each of the scales, however, the stability of the 16 types is open to question because the middle scores are forced one way or another and therefore prone to misinterpretation. They reported Myer's and McCaulley's (1985) study on 102,174 respondents and Boyle's (1995) recent review. The test-retest reliability for each dimension of the MBTI maintains between 0.80 to 0.87 in the former study and the stability coefficients is between 0.69 for thinking-feeling dimension and 0.78 for extraversion-introversion dimension in the latter review. The face validity of the MBTI is generally accepted, but construct validity is controversial because of the debate about whether the constructs are best represented by opposing pairs.

Table 2.6 Thorne and Gough's (1999) Summary of the MBTI Types

Type	Positive Traits	Negative Traits
INFP	Artistic, reflective, sensitive	Careless, lazy
INFJ	Sincere, sympathetic, unassuming	Submissive, weak
INTP	Candid, ingenious, shrewd	Complicated, rebellious
INTJ	Discreet, industrious, logical	Deliberate, methodical
ISTJ	Calm, stable, steady	Cautious, conventional
ENFP	Enthusiastic, outgoing, spontaneous	Changeable, impulsive
ENFJ	Active, pleasant, sociable	Demanding, impatient
ENTP	Enterprising, friendly, resourceful	Headstrong, self-centred
ENTJ	Ambitious, forceful, optimistic	Aggressive, egotistical
ESTJ	Contented, energetic, practical	Prejudiced, self-satisfied

Source: Coffield et al (2004, p48).

2.2.2.2 Witkin's Field-Dependent-Independent Dimension

Influenced by Lewin's concept of differentiation, Witkin *et al* (1974) started to research psychological differentiation and found that people differ in the way they

orient themselves in space. He believed that the different types of space orientation resulted from not just the difference in a person's perception, but from the individual's innate characteristics. Witkin defined two ways of perceiving: field-dependence (FD) and field-independence (FI) based on the perception of an upright in space. Witkin and Goodenough (1981) referred to this work as the articulated-global field-approach dimension. Individuals of the FD type heavily rely on the environment and are easily affected by any stimulus; on the contrary, FI people believe in their own subjectivity, without background influence. Using the Body Adjustment Test (BAT), the Rod-and-Frame test (RFT), and the Group Embedded-Figure Test (GEFT), Witkin extended his theory to provide a deeper understanding of perceptual, intellectual, and social activities over a period of 30 years. The Body Adjustment Test (BAT) requires participants to position their body upright in a tilted room which is controlled by the experimenter. Field-dependent participants were found to sit in alignment with the room, while field-independent participants were found not to be influenced by the surrounding environment and managed to sit upright successfully. The Rod and Frame Test shares a similar underlying theme of space orientation in terms of the test design. It is conducted in a dark room and requires participants to adjust a luminous rod to the vertical position in a luminous tilted frame. Participants who move the rod in alignment with the tilted frame take their cues from the surrounding environment and they are described as 'field dependent' while participants who succeed in adjusting the rod in vertical position seem not be influenced by the surrounding environment and they are defined as 'field independent.' Witkin subsequently developed the Embedded Figures Test (EFT) which is a paper and pencil test conducted away from the laboratory. This test requires participants to find a simple geometric design within a more complex

design. The simple design is shown to the participants before the complex shape which contains the original pattern 'hidden' within it. Again, field-independent participants can find the hidden pattern without influence from the surrounding complex geometric design, while field-dependent participants have difficulty in completing the task. The EFT is now available for different age group including both children and adults (Witkin *et al*, 1971). There are three variations on the original EFT tests: 12 item EFT, 25 item Children's Embedded Figures Test (CEFT) (for children from 5 to 12 years of age) and 25 item Group Embedded Figures Test (GEFT).

Witkin and Goodenough (1981) claimed that results obtained using these three instruments are highly correlated with each other. This indicates the fact that underlying individual differences in acting in various tasks connect to the extent that the individual is influenced by the environment or that the individual perceives analytically. Based on his findings over a number of years, Witkin and colleagues (1977) identified several characteristics of cognitive style. They believed cognitive style is the form rather than the content of cognitive activity; it is a pervasive dimension and reflects deep-seated personality; it is stable over the long term; and it is bipolar unlike intelligence or other abilities. The work of Witkin and his colleagues provides a significant theoretical foundation for the cognitive style construct and has influenced the development of other more recent measures (analytic-intuitive, serialist-holist, impulsive-reflective).

Based on the results from a longitudinal study of 27 students, Witkin *et al* (1967) reported the test-retest correlations for the GEFT is from 0.90 - 0.92 in an interval of

seven years. While Witkin's work has a substantial influence on the field of cognitive style and its reliability has been favoured by its author (Witkin *et al*, 1971), it has also been criticised by researchers for its overextension of theories to generalise performance on perceptual tasks to personality (Griffiths & Sheen, 1992; Cassidy, 2004) and for its ambiguity in terms of whether it is a measure of ability or style (Widiger *et al*, 1980; McKenna, 1984; Streufort & Nogami, 1989; Riding & Rayner, 2002).

2.2.2.3 Kolb's Experiential Learning Model

Influenced by Lewin's research and dissatisfied with traditional methods of management teaching, Kolb (1976) developed his experiential learning model based on a 'learning cycle' in 1970s. Kolb's main contribution is to re-evaluate the conventional definition of cognitive style. He refers to learning style as a 'differential preference for learning, which changes slightly from situation to situation. At the same time, there is some long-term stability in learning style' (Kolb, 2000, p8).

The stages in Kolb's learning cycle are concrete experience (CE), reflective observation (RO), abstract conceptualisation (AC) and active experimentation (AE) (see Figure 2.6). Ideally, learners can involve themselves in new experiences openly and without bias (CE), reflect on it and observe it objectively from many angles (RO), formulate and generalize the observation into a logical concept (AC) and test the concepts in a new situation (AE). The tension in the abstract-concrete dimension

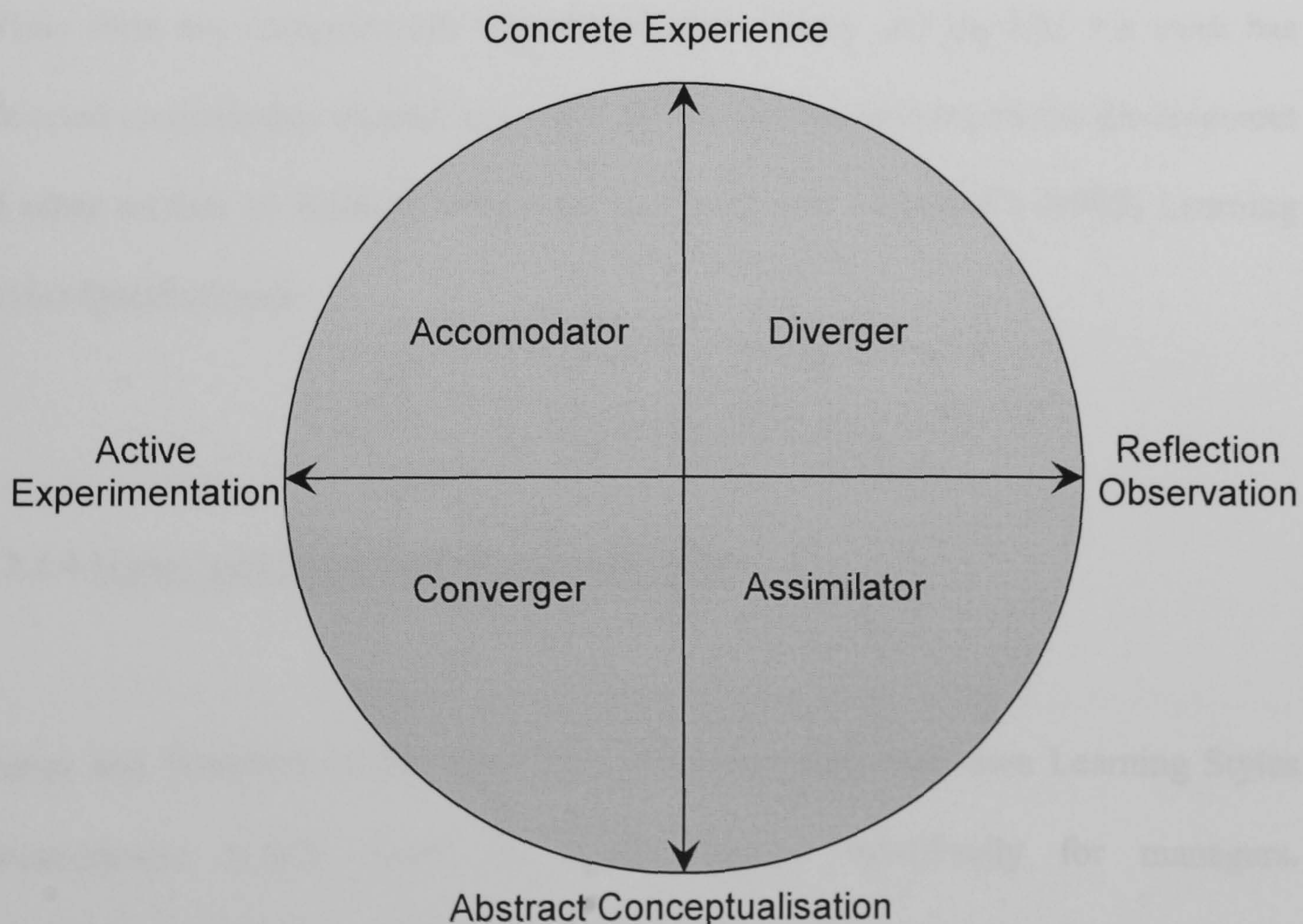
is between relying on conceptual interpretation or on immediate experience in order to grasp hold of experience, while the tension in the active-reflective dimension is between relying on internal reflection or external manipulation in order to transform experience (Coffield *et al*, 2004).

To help individuals assess their approach to learning, Kolb (1976) developed the self-descriptive Learning Style Inventory (LSI). The LSI provides information on the individual's relative emphasis on the four abilities in the learning cycle. The LSI's norms were obtained from a sample of 800 managers and management students. Four styles of learning were discovered and labelled 'converger', 'diverger', 'assimilator' and 'accommodator', each of which corresponds to one specific quadrant in the learning cycle (see Figure 2.5). The convergers, found in the AC-AE quadrant, are good at applying ideas in practice, and prefer to deal with things instead of people. The divergers (CE-RO quadrant) are strong in imagination and brainstorming, tend to be emotional and favour dealing with people rather than with things. The assimilators (AC-RO quadrant) excel in synthesizing facts into theory via inductive reasoning. Finally, accommodators (CE-AE quadrant) are more action-oriented with their greatest strengths in carrying out plans and getting involved in new experience.

The LSI was first devised in 1976 and revised twice in 1985 and 1999 respectively. The 1999 inventory uses a forced-choice ranking method to assess an individual's preferred way of learning (AC, CE, AE and RO). Mainemelis *et al* (2002, p8, cited in Coffield *et al*, 2004) describe the LSI as follows:

‘Individuals are asked to complete 12 sentences that describe learning. Each sentence (e.g. ‘I learn best from’) has four endings (e.g. AC = ‘rational theories’, CE = ‘personal relationships’, AE = ‘a chance to try out and practice’, and RO = ‘observation’). Individuals rank the endings for each sentence according to what best describes the way they learn (i.e. ‘4=most like you’, ‘1=least like you’). Four scores, AC, ED, AE and RO, measure an individual’s preference for the four modes, and two dimensional scores indicate an individual’s relative preference for one pole or the other of the two dialectics, conceptualising/experiencing (AC-CE) and acting/reflecting (AE-RO).’

Figure 2.5 Kolb’s Experiential Learning Cycle and Basic Learning Styles



Source: Kolb et al (2001, p229).

The psychometric properties of the LSI have been criticised over years. In both Riding and Rayner's (2002) and Coffield *et al*'s (2004) recent reviews of cognitive style, they reported that some researchers testified to the reliability of the LSI (e.g., Marshall & Merritt, 1985; Heffler, 2001), others criticised its test-retest reliability (e.g. Freedman & Stumpf, 1978; Wilson, 1986; Sims *et al*, 1986; Allinson & Hayes, 1988; Atkinson, 1988; Lam, 1997) and others provided mixed support (e.g. Geiger & Pinto, 1991; 1992). In terms of its validity, there has been little agreement by researchers (Freeman & Stumpf, 1978; Allinson & Hayes, 1988; Newstead, 1992; de Ciantis & Kirton, 1996; Wierstra & de Jong, 2002; cited in Coffield *et al*, 2004) but supported by Katz's (1986) study of 739 Israeli students in the Hebrew version of the LSI.

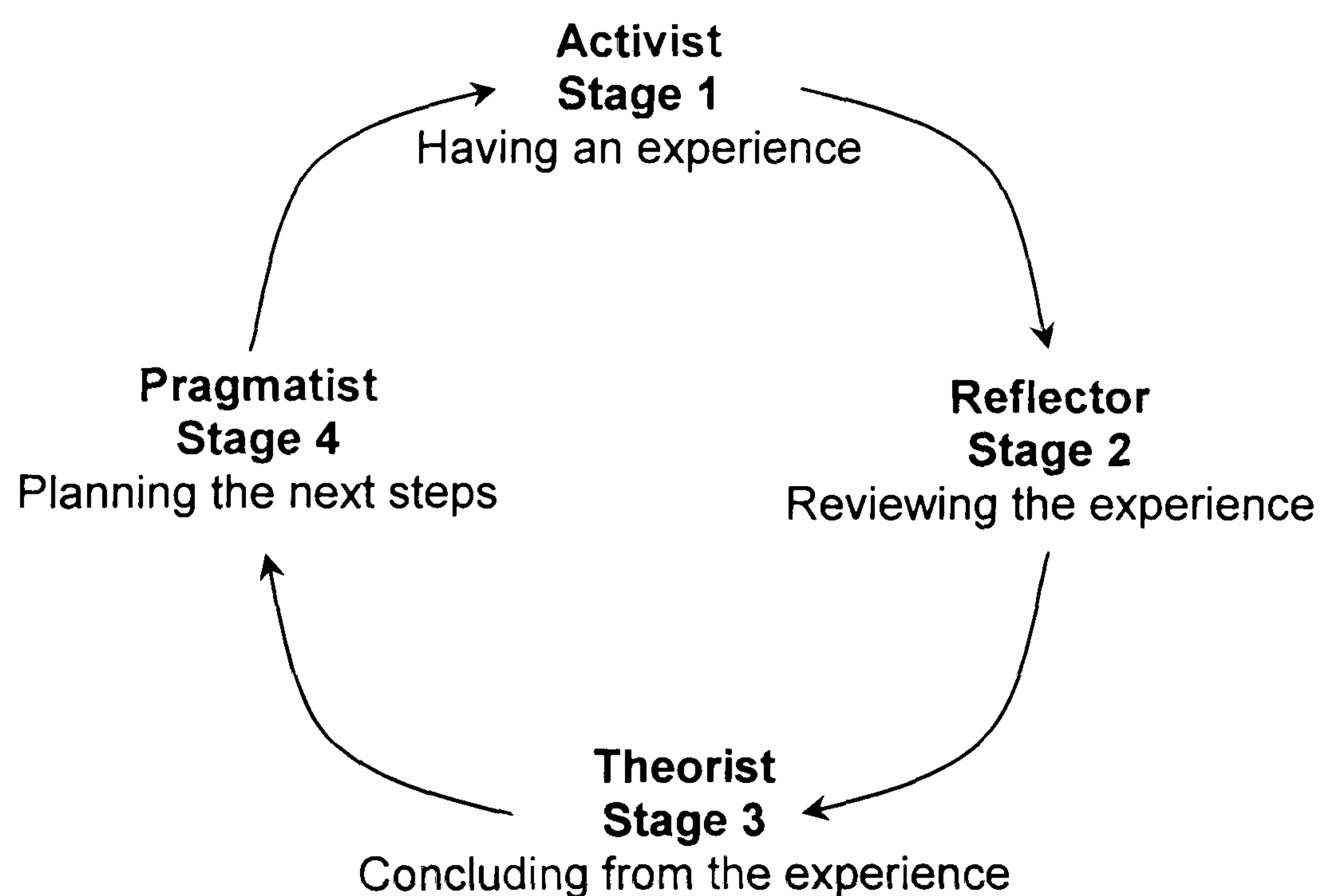
While there are disagreements regarding Kolb's theory and the LSI, his work has attracted considerable interest since the 1970's and has influenced the development of other models of learning style such as Honey and Mumford's (1982) Learning Styles Questionnaire.

2.2.2.4 Honey and Mumford's Learning Cycle

Honey and Mumford (1982) spent four years designing their own Learning Styles Questionnaire (LSQ) based on Kolb's theory, specifically for managers. Administered initially to 1,302 British managers and professionals, it asks questions about general behavioural tendencies rather than just learning as was the case with

Kolb's LSI. The LSQ consists of 80 items with simple agree or disagree answers. As a detailed practical manual with simple language for management people, Honey and Mumford try to make people aware of their strengths in the four types of learning styles and define activist, reflector, theorist and pragmatist respectively (see Figure 2.6).

Figure 2.6 Dimensions of Honey and Mumford's Learning Cycle



Source: Honey & Mumford (2000).

Honey and Mumford (2000) believe that each learning style in the learning cycle has its own characteristics, each with its own unique strength and weakness. Table 2.7 presents the differences in activists, theorists, pragmatists and reflectors. They also emphasise that 'no single style has an overwhelming advantage over any other.

Each has strengths and weaknesses but the strengths may be especially important in one situation, but not in another' (Honey & Mumford, 2000, p43).

The LSQ originally consisted of 63 items and was extended to 80 items later (Honey & Mumford, 2000). These items probe preferences for the four learning styles with 20 items for each style with which subjects are asked to agree or disagree. In a study of 50 individuals, Honey and Mumford (2000) obtained test-retest reliability correlations ranging from 0.81 to 0.89 with an interval of two weeks and claimed that the face validity is not in doubt. The correlation between Activists and Kolb's CE, Theorist and AC, Pragmatist and AE, and Reflector and RO were reported as 0.23, 0.54, 0.68 and 0.73 respectively by Honey and Mumford (cited in Sugarman, 1985). Sugarman (1985) argues that the instrument's psychometric evaluation was limited and low in quality based on the small sample size. Allinson and Hayes (1990) also point out the ambiguity between Kolb's LSI and LSQ and suggest that more research needs to be conducted to test its validity. Duffy and Duffy (2002, cited in Coffield *et al*, 2004) were unable to validate the four learning styles and two bipolar dimensions using both exploratory and confirmatory factor analysis and were also unable to employ it as an predictor of students' academic performance. While Honey (2002, cited in Coffield *et al*, 2004) counters the criticisms by saying that LSQ has been helpful to many people for 20 years, other researchers have clearly cast doubts on its utility.

Table 2.7 Honey and Mumford's Strength and Weakness of Learning Styles

Style	Strength	Weaknesses
Activists	<ul style="list-style-type: none"> - flexible and open-minded - ready to take action - like to be exposed to new situations - optimistic about anything new and therefore unlikely to resist change 	<ul style="list-style-type: none"> - tendency to take immediately obvious action without thinking through possible consequences - often take unnecessary risks- tendency to do too much themselves and to hog the limelight - rush into action without sufficient preparation - get bored with implementation/ consolidation/ follow through
Reflectors	<ul style="list-style-type: none"> - careful - thorough and methodical - thoughtful - good at listening to others and assimilation information - rarely jump to conclusions 	<ul style="list-style-type: none"> - tendency to hold back from direct participation - slow to make up their minds and research a decision - tendency to be too cautious and not take enough risks -not assertive; not particularly forthcoming and have no 'small talk'
Theorists	<ul style="list-style-type: none"> - logical, 'vertical' thinker - rational and objective - good at asking probing questions - disciplined approach - grasp of the 'big picture' 	<ul style="list-style-type: none"> - restricted in lateral thinking - low tolerance for uncertainty, disorder and ambiguity - intolerance of anything subjective or intuitive -full of 'shoulds, oughts and musts'
Pragmatists	<ul style="list-style-type: none"> - eager to test things out in practice - practical, down to earth, realistic - businesslike, get straight to the point - technique-oriented 	<ul style="list-style-type: none"> - tendency to reject anything without an obvious application - not very interested in theory or basic principles - tendency to seize on the first expedient solution to a problem - impatient with indecision - more task-oriented than people-oriented

2.2.2.5 Kagan's Impulsive-Reflective Dimension

Kagan and colleagues (1964) identified the impulsive-reflective dimension of cognitive style. Their theory is based on an accidental discovery made when they were investigating children's response rates while reading. They found that some people (later referred to as reflective) are afraid of failure and tend to regard their rate of errors as the primary indicator of their ability while others are more impulsive. A prime concern for the latter is that their rate of the speed, and their preference was to reply faster to show their competence. Some researchers (Haynes & Miller, 1987; Streufert & Nogami, 1989) have found that the impulsive-reflective dimension is related to Witkin's field-dependent-independent dimension of cognitive style. Jonassen and Grabowski (1993, p11) provide a list of characteristic differences between the impulsive and reflective styles (see Table 2.8).

Kagan and colleagues (1964) developed the Matching Familiar Figures Tests (MFFT) to assess the impulsive-reflective dimension, and this has been developed into a computer-administered version (Van Merriënboer & Jelsma, 1988, cited in Armstrong, 1999). This test contains 12 standard pictures, each with eight alternatives. Individuals are required to point at the matching picture for each. The accuracy and the time of response are recorded to measure the different types of cognitive styles.

Riding and Rayner's (2002) reported that the MFFT is stable over both time and tasks. Researchers (e.g. Massari & Massari, 1973) also found that impulsivity-

reflectivity and field-dependence-independence are highly correlated in a sample of lower-class children aged 3-6 years. Reflectives are reported as more field-independent and impulsives as more field-dependent (Messer, 1976). This led Cassidy (2004) to argue that there is an overlap in the two constructs.

Table 2.8 Characteristic Differences in Reflectivity and Impulsivity

Impulsive	Reflective
Active	Reflective
Anxious	Contemplative
Haptic	Verbal
Global	Analytic
Dissipated	Focused
Excitable	Calm
Lower achievers	Higher achievers
Reward-sensitive	Unaffected by rewards
Future orientated	Present orientated

Source: Jonassen & Grabowski (1993, p11).

2.2.2.6 Kirton's Adaptor-Innovator Dimension

Kirton (1980) proposes that cognitive style relates to creativity, problem-solving and decision-making strategies, and also involves a personal response to change. He also acknowledges the relation between cognitive strategies and personality which he

claims appears to develop in early life and remains stable over both time and situation.

Kirton (1976) developed the adaptor-innovator dimension (A-I dimension) to distinguish a difference in the way people process information when faced with a changing situation. He argues that when confronted with the need to make sense of a changing situation and decide how to act, some people appear to focus their attention on doing things better (adapting) while others perceive possibilities for doing things differently (innovating). Adaptors are stable, predictable and sensitive, while innovators are risk takers. A list of characteristics associated with the A-I dimension is presented in Table 2.9.

Table 2.9 Kirton's Characteristics of Adaptors and Innovators

Adaptor	Innovator
-Precise, methodical approach to the task	-Random, non-sequential approach to the task
-Convergent thinker, works within the task remit	-Divergent thinker, works by challenging the task remit
-Consensus seeker who relies upon established method	-Independent and group 'shaker'
-Emphasises solving problems by increasing efficiency, continuity and stability	-Unpredictable and idealistic
-Seeks to follow established structures	-Leads in unstructured situations
-Conformist and challenging rules cautiously	-Non-conformist
-Prefers repetitive, detailed work which can be sustained over time	-Unable to sustain maintenance work/activity
-Compliant, low self-confidence, and reverts to conformity when challenged	-High self-esteem linked to activities involving the generation of ideas
-Good at administrative management but stays systems-bound	-Good at crisis management
-Liable to make goals of process and methods	-Liable to justify the end with no regard for the means

Source: Kirton (1994).

Kirton developed the Kirton Adaptor-Innovator Inventory (KAI) to measure this dimension. It is a self-report summary designed to distinguish adaptors and innovators on a scale for adults in workplace and the general population. The KAI consists of 32 statements, each of which can be scored on a scale from one to five according to the degree of ease or difficulty, with a range of possible scores from 32 to 160 and a theoretical mean of 96 (Kirton, 1988). The higher the score the more innovative a person is, the lower scores the more adaptive he or she will be.

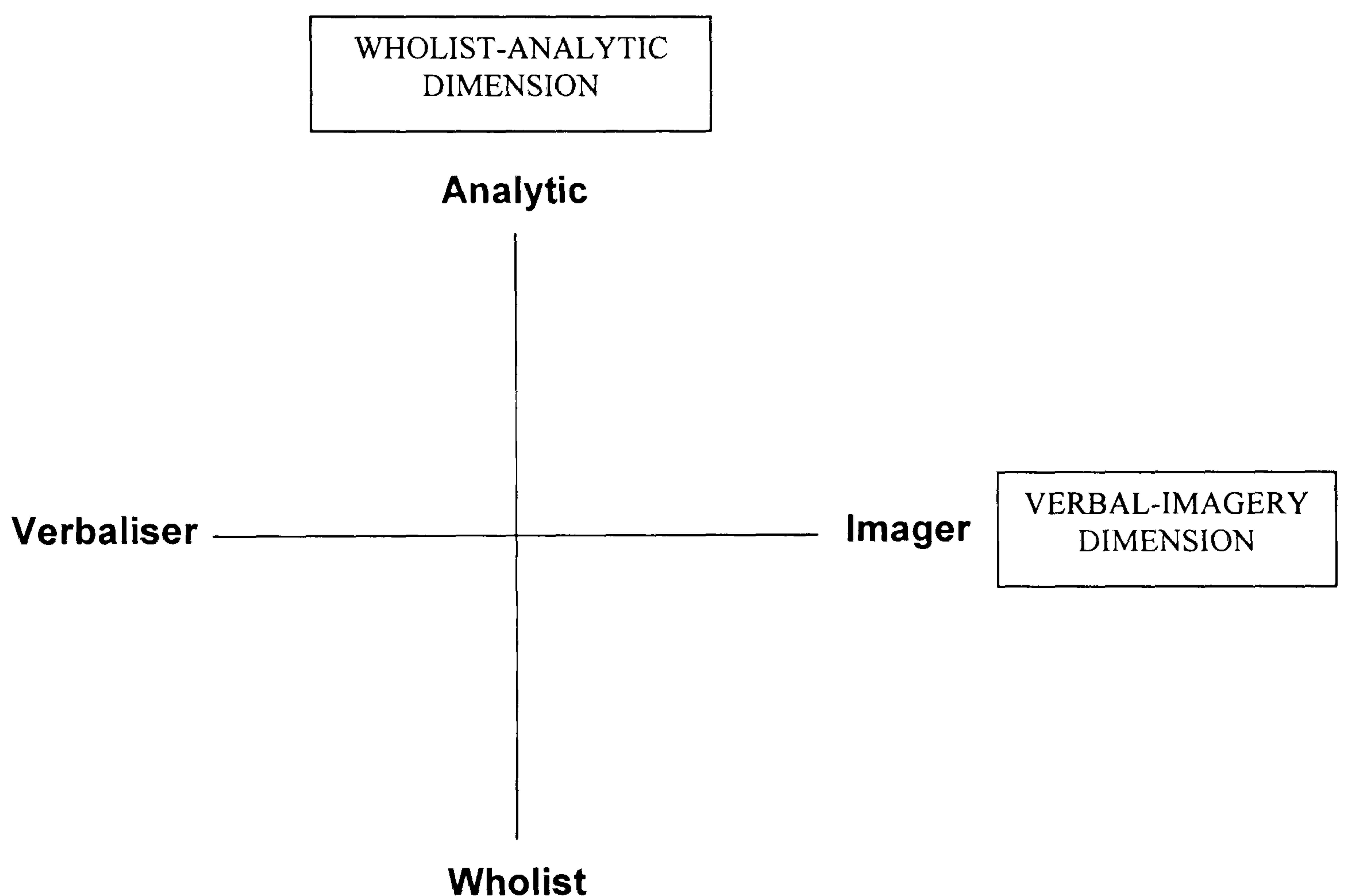
Kirton (1994) reported various studies supporting the measure, but warns that reliability can be expected to diminish when it is used outside the workplace since it was originally designed to be used specifically with adults in the workplace. Armstrong (1999) reported that independent studies by Carne and Kirton (1982) and McKinnell (1993) revealed statistically significant correlations between the KAI inventory and the MBTI.

2.2.2.7 Riding's Wholist-Analytic/Verbal-Imagery Dimension

Riding and Rayner (1998) reviewed 30 definitions or dimensions of cognitive style developed between the 1940s and 1980s. On this basis, they feel that it is possible to identify two underlying dimensions: the 'holist-analytic' dimension, and the 'verbal-imagery' dimension. Against the background of Witkin *et al*'s (1962) field-dependence-independence and Paivio's (1971) dual coding theory, Riding developed a new conceptual framework based on an integration of these two

dimensions. The wholist-analytic style dimension refers to whether an individual tends to organise information into wholes or parts, while the verbal-imagery style dimension refers to whether an individual is inclined to represent information verbally or in mental pictures (Figure 2.7).

Figure 2.7 Riding's Two Dimensions Model of the CSA



Source: Riding & Rayner (2002, p9).

Riding and Rayner (2002) also distinguish between cognitive style and learning strategy on the basis of the functions of thinking and doing. Strategies may vary from time to time, and may be learned and developed, while styles are static and are relatively in-built feature of the individuals (Riding & Cheema, 1991). Following

this logic, input of cognitive style can have a direct effect on the output of learning strategy. Riding and Cheema (1991, p195) claim that: 'Strategies may vary from time to time, and may be learned and developed. Styles, by contrast, are static and are relatively in-built features of the individual.'

Riding (1991) developed the Cognitive Style Analysis (CSA), a computer-presented assessment, and assert that it is 'the most efficient way to assess individual's style' (Riding & Rayner, 1998). However this view is not shared by others (Coffield *et al*, 2004). The concern of holist-analytic and verbal-imagery dimensions is with speed of reaction and processing rather than with accuracy. The holist-analytic dimension is tested visually and the scoring is based on a comparison of speed of response on a matching task (wholistic preference) and on an embedded figures task (analytic preference). The items of the verbal-imagery dimension are all verbal and based on relative speed of response to categorising items as being similar by virtue of their conceptual similarity (verbal preference) or colour (visual preference). No evidence of reliability has been provided by the author. In Coffield *et al*'s (2004) review, they reported other researchers' evidence (Redmond *et al*, 2002; Peterson *et al*, 2003) that the test-retest reliability of the CAS ranges only from 0.21 to 0.56 with a short interval, and argue that this leaves doubts over its validity.

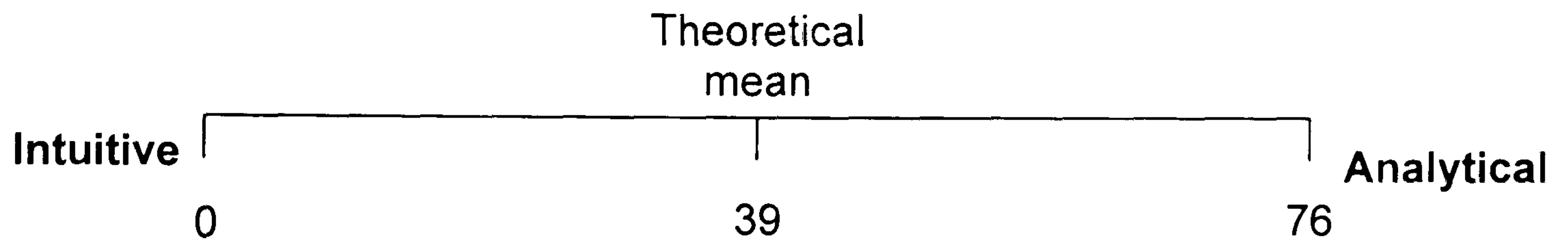
2.2.2.8 Allinson and Hayes' Intuitive-Analytic Dimension

Allinson and Hayes (1994) review the large literature relevant to cognitive style and provide an insight into the confusing relationship between cognitive style and learning style, cognitive strategy, coping behaviour and cognitive ability. They synthesise an overview of 22 dimensions of cognitive style and consider intuition-analysis as the most fundamental dimension.

Allinson and Hayes (1996) cite several researchers (Agor, 1986; Hammond *et al*, 1987) to support the claim that the various styles identified are simply different conceptions of the same dimension. They also refer to Entwistle's (1981) proposal that there is a possible connection between this superordinate dimension and the split brain metaphor. They believe that:

‘Intuition, characteristic of right-brain orientation, refers to immediate judgment based on feeling and the adoption of global perspective. Analysis, characteristic of left-brain orientation, refers to judgment based on mental reasoning and a focus on detail’ (Allinson & Hayes, 1996, p122).

They developed the Cognitive Style Index (CSI) to measure the intuitive-analytic dimension of cognitive style. It has a self-report format and each of 38 statements requires a choice between true-uncertain-false answers. The range of the score is from 0 to 76 with a theoretical mean of 39. The closer the score is to 76, the more analytical the respondent is. The nearer the score is to 0, the more intuitive the respondent is. Armstrong (1999) depicts the CSI scale as shown in Figure 2.8.

Figure 2.8 Cognitive Style Index Scale

Source: Armstrong (1999, p74).

The CSI has been widely used as a research tool on a national and international basis. It has been translated into several languages (Lofstrom, 2002; Coffield *et al.*, 2004; Zhang, Allinson & Hayes, in progress). Cross-cultural studies have been conducted by many researchers (Allinson & Hayes, 2000; Hill *et al.*, 2000; Sadler-Smith *et al.*, 2000). Its reliability and validity has been extensively evaluated by its own authors and other researchers (Murphy *et al.*, 1998; Sadler-Smith *et al.*, 2000, Coffield *et al.*, 2004). Coffield and colleagues (2004, p138) argue that ‘the CSI has be the best psychometric credentials’ out of 71 learning styles models that they reviewed and assessed.

The strong support in the research literature for this superordinate dimensions and the good evidence of the reliability and validity of the Allinson and Hayes’ measure, led to the adoption of the CSI in the present study. It is psychometric properties will be discussed in more detail in chapter 5.

2.3 Malleability of Cognitive Style

There are two schools of thought in the literature concerning the malleability of cognitive style. The conventional definition proposes that cognitive style is consistent and not changeable across areas of cognitive functioning. On the other hand, some recent research has suggested that cognitive style might be malleable over the long-term (Agor, 1989; Allinson & Hayes, 1996) or a short-term (Messick, 1976; Kogan, 1980; Robertson, 1985; Kirton, 1989).

The traditional argument of the non-malleability of cognitive style is supported by certain developmental studies. Witkin and colleagues (1967) studied 8-24 years old children and young adults using longitudinal and cross-sectional methods. Even though he found a change in level of differentiation from childhood to young adulthood, the development of psychological differentiation appears to reach a plateau in young adulthood (around the age of 17). Bauman (1951, cited in Witkin *et al*, 1967) also studied cognitive styles in young adults and found no evidence of change in the extent of field dependence attributable to marriage, psychotherapy, or psychological trauma over a three year period.

The conventional belief in the consistently stable nature of cognitive style has been revised and challenged in the recent years not just theoretically, but also in field works. Witkin (1978) proposes the idea of 'fixed' and 'mobile' aspects of cognitive

style, and believes that the development of mobility may be fostered by life experiences and training. His proposal is not based on any study on a direct relationship between training and mobility, but on the evidence that training can affect particular components of the hierarchical structure proposed by field-dependence theory. Both the cognitive restructuring skills and interpersonal competencies on the two polarised domains of field-dependent-independent dimension can be gained by training. The poor performance of field-independent people in learning social material is a product of inattentiveness rather than lack of ability.

Other researchers believe that cognitive style can be changed in a short term situation. Messick (1976), Kogan, (1980), Robertson (1985), Kirton (1989) and Riding and Rayner (1998) believe the individual to be consistent and stable in their cognitive style in the long term while able to adapt and change strategies or coping styles in short term for certain tasks. By distinguishing the differences between habitual 'style' and malleable 'strategy', Riding and Douglas (1993, p298) suggest that cognitive style is a fairly fixed individual characteristic, while cognitive strategies are the ways that may be used to cope with specific situations and tasks and are possibly malleable. Hayes and Allinson (1998) argue that some researchers' separation between learning style and strategies or coping behaviour is a reflection of short-term malleability of the individual's cognitive style.

More recently, Coffield and colleagues (2004) reviewed 71 constructs of cognitive style and integrated them on the basis of their flexibility as suggested by researchers.

Figure 2.3, presented earlier, presents the five categories of Coffield's continuum of cognitive style. Their review implicates the controversy of malleability of cognitive style in the literature.

On the basis of the idea that cognitive style may be malleable, the remainder of this section focuses on evidence of the way in which the environment influences individual cognitive style. This evidence can be considered with regard to three different environments: the learning/teaching environment, the work environment and the cultural environment.

2.3.1 The Effect of Learning Environment on Cognitive Style

While researching the 'experiential learning cycle' in terms of behavioural adaptation, Kolb (1976, cited in Nulty & Barrett, 1996) found that the learning styles of some business managers are related to their undergraduate majors. Due to the in-depth study of a narrower range of disciplines while at university, students tend to adopt a particular learning style as a result of a gradual process of adaptation to the disciplines including learning demands placed on them and the reward systems which they experience.

Kolb (1984, p164) later argues that the process of specialisation in learning style is a result of accentuation. Individuals with a particular learning style will be more certain of fitting their major, learning environment and future career after the

accentuation process in university education, professional career and job experience. Kolb also found that when individuals with divergent learning styles complete training sessions, their LSI scores become even more concrete and reflective on a post-test, accentuating their disposition toward divergent learning experiences. This finding suggests that education and career experience might not only foster individual learning styles' adaptation, but also shape them over the longer term, particularly in a matching situation.

Haddon and Lytton (1968) researched the interrelationship between different primary school teaching strategies and divergent thinking abilities. They found that pupils from informal schools are significantly better in divergent thinking than students from formal schools. Hayes and Allinson (1997) believe that this result in turn suggests that learning style is influenced over the long term by the experiences to which individuals are exposed. Crutchfield (1965), Barker-Lunn (1970) and Covington *et al* (1974) further support the view of Haddon and Lytton (1968) that certain teaching methods encourage convergent thinking and others foster divergent thinking. Logical, structured presentation, and consequently teaching methods which hold back divergent thinking but support mostly convergent thinking, can be commonly found in mathematics, science and technology. In contrast, teaching strategies in art subjects encourage mainly divergent thinking.

Nulty and Barrett (1996) also agree that the malleability of the students' choice of learning style could be influenced by temporary environmental demands and/or short-term objectives. Based on Kolb's experiential learning theory, they discuss

the idea of 'discipline' as one of the variables that influence university students' behaviour adaptation. They argue that students' adaptations are 'a transition and a gradual induction into the culture of their chose discipline' (Nulty & Baret, 1996, p336). Their data from a sample group of 1005 students from different majors support Kolb's idea of adaptation of learning styles in higher education students.

Rush and Moore (1991) examined the effect of training on the adaptability of learning styles. They found that a group of field-dependent members with two days training scored higher on restructuring tasks than a group without training. This result demonstrates the interaction between training, learning strategies and learning performance, and suggests some malleability in cognitive styles.

In summary, all the studies discussed above suggest that the learning-teaching environment could influence an individual's information processing style and certain training can strengthen particular ways of thinking and cognitive style.

2.3.2 The Effect of Work Environment on Cognitive Style

Agor (1989) and Allinson and Hayes (1996) report that people in senior positions in many occupations and organisations tend to have a more intuitive cognitive style than those at lower levels. This may be interpreted as meaning that the more intuitive individuals are selected for promotion; it might also suggest however that

some individuals are able to modify their cognitive style over the longer term in response to the changing information processing demands of their work roles.

This evidence may be interpreted as meaning therefore that the work environment may have an impact on cognitive style and indicate the direction of change from junior to senior level work roles. The fact that the majority of research is based on cross-sectional rather than longitudinal studies indicates the need for caution.

2.3.3 The Effect of Culture on Cognitive Style

Traditionally, there has often been a distinction between East and West in the analysis of national cultures. Although there is no evidence to show biological or genetic differences, several studies have explored and investigated the cross-cultural differences in cognitive style between national groups.

Kassem (1989) studied 18 service firms in the Arabia region, and found that the overwhelming majority practice various forms of reactive, intuitive, and incremental planning. Only three out of 15 non-foreign companies adopted the Western formulation of formal strategic planning. Kassem argues that tradition is the main factor influencing the Arab manager's style of management. They tend to rely on market instincts instead of hard data like Western managers. This suggests that Western managers may be more analytic while Arab managers are more intuitive.

Based on the study of Canadian and Japanese MBA students assessed using the MBTI, Abramson *et al* (1993) found that Canadians prefer a logical, impersonal and objective thinking-based cognitive style while Japanese prefer a more feeling-based cognitive style with a concern for group harmony and friendly human relations. They also suggest that the Japanese would seem to be particularly adaptable to new situations with their openness to new information.

These studies find the East is more intuitive, while the West is more analytic. Evidence however also favours the opposite view. Abramson *et al* (1996) confirms the differences between Japanese, Canadian and American managers and suggested that Japanese managers are slower decision makers than their Canadian and American counterparts. In a study of 394 managers from six nations and 360 management students from five nations assessed on the Cognitive Style Index, Allinson and Hayes (2000) found that the British are more intuitive than the people from Australia, France, Germany, Hong Kong, India, Jordan, Nepal, Russia and Singapore.

Kume (1985) studied the cultural difference between Japanese and North Americans in management practice. The results suggest that Japanese tend to have a consensus style of group decision-making while Americans prefer a more individualistic and independent approach. The emphasis in the Japanese way is a sense of commitment, shared responsibility, interdependence and close coordination. The time spent in the process does not matter since the secured consequence of the decision is the main concern. In contrast, North Americans' decision-making style is more likely to be a

quick and even impulsive due to the motive of achievement and accomplishment. This suggests that the Japanese style tends to be more analytic, while the American is more intuitive.

Rothman (2000) examined the field-dependent/independent dimension of cognitive style among 278 managers among different cultures. The result demonstrates statistically significant differences with African Americans and Hispanic/Latinos having a more field dependence orientation (intuitive) and Asian/Pacific islanders a more in field independence orientation (analytic).

Domino and Hannah (1987) conducted a comparative study of the social values of 80 Chinese and 80 American children by asking respondents to complete a story. Factor analysis of 701 stories yielded four factors common to both groups, one unique factor for the Chinese sample and two for the American sample. The findings show that Chinese children have greater social orientation, a strong standard of approval and rejection behaviour and concern with authority, moral ethical rectitude, greater saliency of the role of natural forces and chance. On the other hand, their American counterparts evidence greater instances of physical aggression and economic orientation. Their conclusion is that Chinese children's creativity may already be enforced in their early education development.

Hofstede (1994, p217) suggests that the complexity of characters in Chinese script develops the children's ability at pattern recognition, but also imposes a need for rote learning. Sadler-Smith and Tsang's (1998) study of 183 Hong Kong and 225

British university students to test memory theory (deep/superficial learning), did not support the stereotype of 'Asian-learner equals rote-learner'. This calls into question the stereotyped notion of lack of creativity among Chinese.

In a study of 222 Chinese managers and 148 European managers, Furnham and Stringfield (1993) found a dramatically significant difference between the two cultures: Western managers tended to be more extroverted, more intuitive, more feeling and more perceiving whereas Chinese managers were more introverted, more sensing, more thinking and more judging.

In a study of 150 Chinese and American graduate students, Huang and Sisco (1994) adopted the Harrison and Bramson's Inquiry Mode Questionnaire (1977), and found no differences in analyst and synthesist thinking styles, but found the Chinese to be more pragmatic than their American counterparts. The findings may however be unreliable owing to lack of control of other sample characteristics and a small sample size.

Branine (1996) and Warner (1998) reviewed training in China and have the reason for the failure of Western-style management education there. They explain that the less intuitive learning style of Chinese managers' has been heavily influenced by strict government guidelines. The Chinese style of teacher-centred education causes their learning styles to be characterised by a rigid following of rules rather than free involvement and thinking.

In summary, literature abounds with evidence of differences in cognitive style among national groups, as illustrated in the studies cited. This adds weight to the proposition that environmental factors can affect cognitive style.

Supporting this notion of cross-cultural differences in individual cognitive style, Bagley's (1988) study suggests that moving to a new country can lead to changes in ways of thinking. Bagley studied Jamaican migrant children (moving from Jamaica to Canada) and non-migrant controls. He conducted research with participants within four weeks of their arrival in Toronto and retested after one year and two years from the beginning of the study. The results show that during the first two years in the Canadian society, Jamaican migrants steadily became more field-independent and achieved levels of perceptual understanding skills close to those of their Canadian peers. The control group of non-migrant Jamaican children remained relatively field-dependent. Bagley (1988) also reports that a Jamaican group in London also changed to be more like their white peers in the host country. He cites several other research findings to strengthen this argument. Ghunan's (1975) investigation found that Punjabi boys in the United Kingdom changed their cognitive style to be similar to their local peer group while the non-immigrants remained the same. Dyal and colleagues (1979) also discovered that Filipino immigrants in Hawaii tend to be more field-dependent while second generation (Hawaii-born) Filipinos tend to be more field-independent. All these findings imply that immigrants adapt their cognitive style to fit into the new cultural environment.

2.4 Focus of This Study

This review identifies complex theoretical arguments and empirical evidence relating to the malleability of cognitive style. On this basis, the key research questions that require further investigation appear to be as follows:

1. Is cognitive style malleable or fixed in adulthood?
2. If cognitive style is malleable, what factors promote or inhibit change?

These are the focus of the present study. The next chapter examines in more details the process of acculturation as individuals move between cultures.

CHAPTER 3

ACCULTURATION

The present study examines the effect of ‘culture shock’ on the way an individual processes information. In order to contextualise this review, a discussion of the growing awareness of acculturation and associated macro issues (theoretical, economic and social) is introduced. The theories of acculturation and its dimensions are also discussed in order to understand the factors affecting ‘cross-cultural travellers.’ Finally, research designs and measurements used to study acculturation are discussed. The implications of this literature for the design of the study are examined and discussed towards the end of the chapter.

3.1 Acculturation as a Research Topic

‘Acculturation comprehends those phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups.’

Thus begins probably the earliest accepted definition of the term acculturation by Redfield, Linton and Herskovits in their *Memorandum for the Study of Acculturation* published in 1936. Olmeda (1979, p1061, cited in Ward, 1996) argued that it has been considered as one of the more ‘elusive’, but ‘ubiquitous’ constructs in the behavioural science during the whole of the twentieth century. While acculturation

studies have been inconsistent, and described as ‘piecemeal’ by many researchers (Ward, 1996; Tsang, 2001), there is agreement that the concept of acculturation is nonetheless a learning process that involves individuals establishing social identities within the host culture. This learning process occurs over an extended period of time and as such has been studied in terms of stages as well as dimensions.

3.2 Definition of the Cross-Cultural Traveller

Ward (1996) and Van de Vijver and Phalet (2004) argue that the first group of social scientists to study acculturation were sociologists and anthropologists interested in group-level changes following migration, specifically with regard to the impact of civilisation and ‘the white man’ on aboriginal communities. Exchanges between different cultures are now so frequent that acculturation affects many individuals in groups and has a wide scope of economic, politic, social and health implications.

The ‘cross-cultural traveller’ was a term used to describe a person who is from a local (ethnic) culture coming into contact with another (foreign) culture. Ward and co-authors (2001) argue that the rising phenomenon of cross-cultural travellers was due to factors including easier access to aeroplanes, increased globalisation, educational exchange, tourism, migration and asylum-seekers’ and foreign workers’ movements. Based on the duration of acculturation time, there are two types of cross-cultural travellers. The first one is the temporary or short-term traveller who intends to return to the homeland once the purpose of the visit has been achieved. Klineberg and Hull (1979) and Ady (1995) use the term ‘sojourner’ to describe this type of traveller between societies and cultures. This category includes business

people (Redfield *et al*, 1936; Torbiorn, 1994), international students (Klineberg, 1981), technical experts (Seidel, 1981), missionaries (Redfield *et al*, 1936; Gish, 1983), military personnel (Guthrie, 1966), diplomats (Redfield *et al*, 1936; Dane, 1981), and tourists (Pearce, 1982a; 1982b). On the other hand, the more long-term intercultural travellers are mostly referred to as 'immigrants' and 'refugees' who have no intention of returning to their homeland (Ward *et al*, 2001).

3.3 The Macro Issues Associated with Migration between Cultures

An individual or group who can adapt successfully to a new setting is at an advantage. There are cost - emotional, psychological, and financial - to pay for failure. Macro issues associated with the migration between cultures will be discussed under three headings: theoretical perspectives, economic issues, and social issues.

3.3.1 Theoretical Perspectives

America is usually considered to be a multicultural society. It began with a major influx of immigrants occurring mainly after the 1830s, when large numbers of British, Irish, and German nationals began entering the country after the American Civil War. This influx was followed by streams of Scandinavians and then groups from Eastern and Southern Europe as well as a small number from the Middle East, China, and Japan. Before the outbreak of World War I in 1914, the American public generally took it for granted that the constant flow of newcomers from abroad (mainly Europe) brought strength and prosperity to the country (Laubeová, 2000).

Under the aforementioned historical influence of cross-cultural encounter, several pioneers proposed theories based on their observations and beliefs.

The earliest discussion of intercultural contacts was in the concept of the melting pot theory, proposed in 1782 by Hector de Crèvecoeur. A French settler in New York, he envisioned 'the United States not only as land of opportunity but as a society where individuals of all nations are melted into a new race of men, whose labours and posterity will one day cause changes in the world' (Parrillo, 1997). Since then, the melting pot discussion has effected a lot of criticism and Gordon (1964) proposed the Assimilation Theory as an alternative to the melting pot assertion. He argued that acculturation is a process of change in the direction of the mainstream culture with the outcome of adaptation. However, this school of thinking was criticised because of its emphasis on Americanisation, implying that change is unidirectional (Glazer & Moynihan, 1963; 1975; Parrillo, 1997).

In response to the prominent idea of all ethnic groups needing to melt together, Horace Kallen in 1915 first cited the term of 'cultural pluralism' where ethnic groups in a multicultural society have mutual respect for each other and enjoy equal rights with retaining much of their original cultural identity. He used the metaphor of a symphony orchestra to illustrate the strength through diversity of American society and proposed the beauty of the contribution from different cultural backgrounds (Parrillo, 1996). Based on this proposal, many researchers (e.g. Berry, 1970; 1974; 1984; Triandis, 1975) directed their research beyond the unidirectional perspective and embraced the concepts of bidirectional and multidirectional influences.

3.3.2 Economic Issues

Economic issues have increased the interest of researchers and policy makers in acculturation. This interest will be illustrated here with a brief discussion of some of the economic factors associated with expatriate managers and international students.

3.3.2.1 Expatriate Managers

The current trend for globalisation has led to increased encounters between cultures in recent years. Ward and her colleagues (2001) reported figures demonstrating the dramatic increase of international business travellers. They reported that between 1978 and 1990, there was a 700 per cent increase in British business people's visits to Japan, a 200 per cent increase in visits to the USA and a 100 per cent increase in visits to the Caribbean. Solomon (1999) offers a more recent data from a survey of United States-based companies. He reported that over 350,000 overseas assignments were estimated with a growing trend in the last few years.

However, there is evidence of a high cost of expatriates failing to adjust in international assignments (Black, 1988) and the trend of companies (especially call centres and financial providers) to relocate work to countries with cheaper labour such as India. Between 16 and 40 per cent of all American employees return home early from their overseas assignment and each untimely return costs a firm roughly \$100,000 (Baker & Ivancevich, 1971; Tung, 1982; Copeland & Griggs, 1985; Black, 1988; Black *et al.*, 1991). Copeland and Griggs (1985) reported that about 30 to 50

per cent of American expatriates are assessed as ineffective or only marginally effective.

This failure of expatriate managers to complete the overseas assignments has a massive impact on a company's original cost-and-time-saving intention and their ambitious further-worldwide-development strategy. The understanding of the acculturation experience thus becomes an important issue and a major concern. Many researchers have proposed specific recruitment packages and pre-departure training strategies to minimise the problem (Black *et al*, 1991; Allinson & Hayes, 2000).

3.3.2.2 International Students

The contribution of international students to the Western world's economy cannot be ignored. The earliest concern over the experience of international students in the United States was expressed by the foreign division of the International Committee of the Young Men's Christian Association (YMCA) and the National Board of the Young Women's Christian Association (YWCA) in 1925 (Hammer, 1992). These agencies organised the Committees on Friendly Relations among Foreign Students and in 1911 and later in 1914 commissioned a survey of foreign students to understand the problems they faced during their stay in the United States. Wheeler, King and Davidson (1925) published the results from their survey in 'The Foreign Student in America' and pointed to seven major acculturative problems: problems concerning academic or curriculum issues (e.g. entrance requirements), language

problems, finance, accommodation, social skills, health and recreation and racial discrimination.

As with business expatriates, the migration of students has increased significantly in recent years. Furnham (2004) reported that Britain has about 17 per cent of the world's total overseas student population and there was a tremendous 271 per cent increase in the numbers of international students between the 1970s to the early 90s (from 35,000 in 1973 to 95,000 in 1992). By 2001/2002, there were a total of 225,090 international students in higher education in Britain, including 88,800 students from the EU and 136,290 'other' overseas students. This had risen to about 6 per cent of a total income of the universities of £13.5 billion in 2001 (Furnham, 2004).

Some countries, such as Britain and Australia, have recently made it their national priority to 'export' higher education. In doing this, it is vital to understand the needs and experience of international students and provide support for their cross-cultural transition. This is of obvious economic importance as international students bring in foreign wealth to the host countries (Woolston, 1995) and a demand for education without which some programmes would otherwise be non-viable (Burrell & Kim, 1997). Another benefit is that foreign students can be a resource for host country companies when they are selecting personnel for overseas assignments.

3.3.3 Social Issues

The impact of immigration on a society cannot be underestimated. Migration either from economic migrants or from refugees and asylum seekers has not only increased tremendously in terms of numbers over the recent years, but has also contributed to the creation of multicultural states and the concept of cultural diversity. Sue (1991) estimates that more than half of the American population by 2010 would comprise ethnic minority groups. America, like Canada and Australia, has always been a land of migrants from different cultures, and their innate tolerance of other cultures has created a melting pot of cultures. According to Bracken and McCallum (2001), there are over 200 different languages spoken in the public schools in Chicago.

However different societies have their unique ways of coping with the increasing numbers of sojourners and other immigrants. In a recent interview for the *Times* newspaper (2004), Trevor Phillips, the chairman of the Commission for Racial Equality in the United Kingdom said that the term 'multiculturalism' was of another era and should be scrapped. He felt that the term suggested 'separateness' and was no longer useful in present-day Britain. Mr Philips proposed a vision of British society with the emphasis on British culture. However, the British Minister for Europe, Mr Keith Vaz, disagreed with Mr. Philips' statement, arguing that 'Britishness cannot be imposed on people of different races, cultures and religions.'

In France, the recent ban over the wearing of Islamic headscarves in schools opened fresh debates on the secularity of ethnic groups in a foreign country, with Germany and Belgium condemning the introduction of similar laws. While second-generation

immigrants to America and Canada would prefer to be called Americans and Canadians, the same cannot be said for their British counterparts, who prefer to reaffirm their original ethnic culture.

The motivation for adapting into a new culture is a two-way interaction, where the foreign traveller and the host country must be motivated to participate in both cultures. The foreigner needs to be motivated to join in, and the host needs to invite and accept such interest in participation. This directly affects the acculturation experience and indirectly influences the stability of the society and the financial gain for a country. The impact of motivational orientation on the acculturation process will be further discussed later in this chapter.

3.4 Theory of Acculturation

Acculturation theory has been through some important changes in the past hundred years. One of the most important has been the shift from critical uni-directional acculturation to bi-directional or multi-directional acculturation. Berry (1980a) argues that it is important to consider both the motivation to maintain the original culture and to participate in the new culture. Berry and Kim (1988) expanded the geographical-movement-oriented perspective on the acculturation experience (such as that experienced by immigrants and sojourners) to embrace the sedentary-communities-oriented perspective that accommodates the experience of native peoples and ethnic groups (e.g. second generation of immigrants) in plural societies.

The second development of theory relates to the unit of analysis. Early theories focused on group level of contact, but Graves (1967) started a new school of thought by arguing that acculturation can also be regarded as an individual phenomenon, which he termed 'psychological acculturation.' The group level of acculturation focuses on political, economic, demographic and culture outcomes. The individual level refers to changes that an individual experiences due to being in contact with another culture.

An important development in acculturation theory is the growing emphasis on the factors influencing the acculturation process. Early researchers (Lysgaard, 1955; Oberg, 1960) described how individuals experience acculturation. Later researchers (Berry, 1997; Ward *et al*, 2001) pay more attention to why the individual experiences acculturation as a series of stages of adaptation. Cuellar and colleagues (1995, p281) define acculturation in terms of changes at three levels of functioning: behavioural, affective, and cognitive, encompassing language, cultural cores and expressions, and emotions that have cultural connections. They believe that culture organises all the cultural cores, behaviour and emotions. It is the form of things that people have in mind, and their models of perceiving, relating, and otherwise interpreting them. Ward (1996, p124) also discusses that the 'non-material' concept of acculturation by proposing that acculturation can be viewed as both a state and a process. As a state, it refers to the culture-specific cognitive, behavioural and affective factors which are related to amount or extent of acculturation, such as level of education, socioeconomic status, etc. In a broader context, acculturation can be viewed as a process involving changes over time and encompassing antecedents and outcomes.

Research methods have also evolved to become more subtly-designed (using, for example, psychological tests), rather than being merely theoretically descriptive. The theories' emphasis has also shifted from the description of negative psychological experience (Oberg, 1960; Gullahorn & Gullahorn, 1963) to acculturation as a learning experience (Bochner, 1982; Ward *et al*, 2001) and to an account of the various factors that influence the outcomes of the process.

3.4.1 Stage-theory of Acculturation

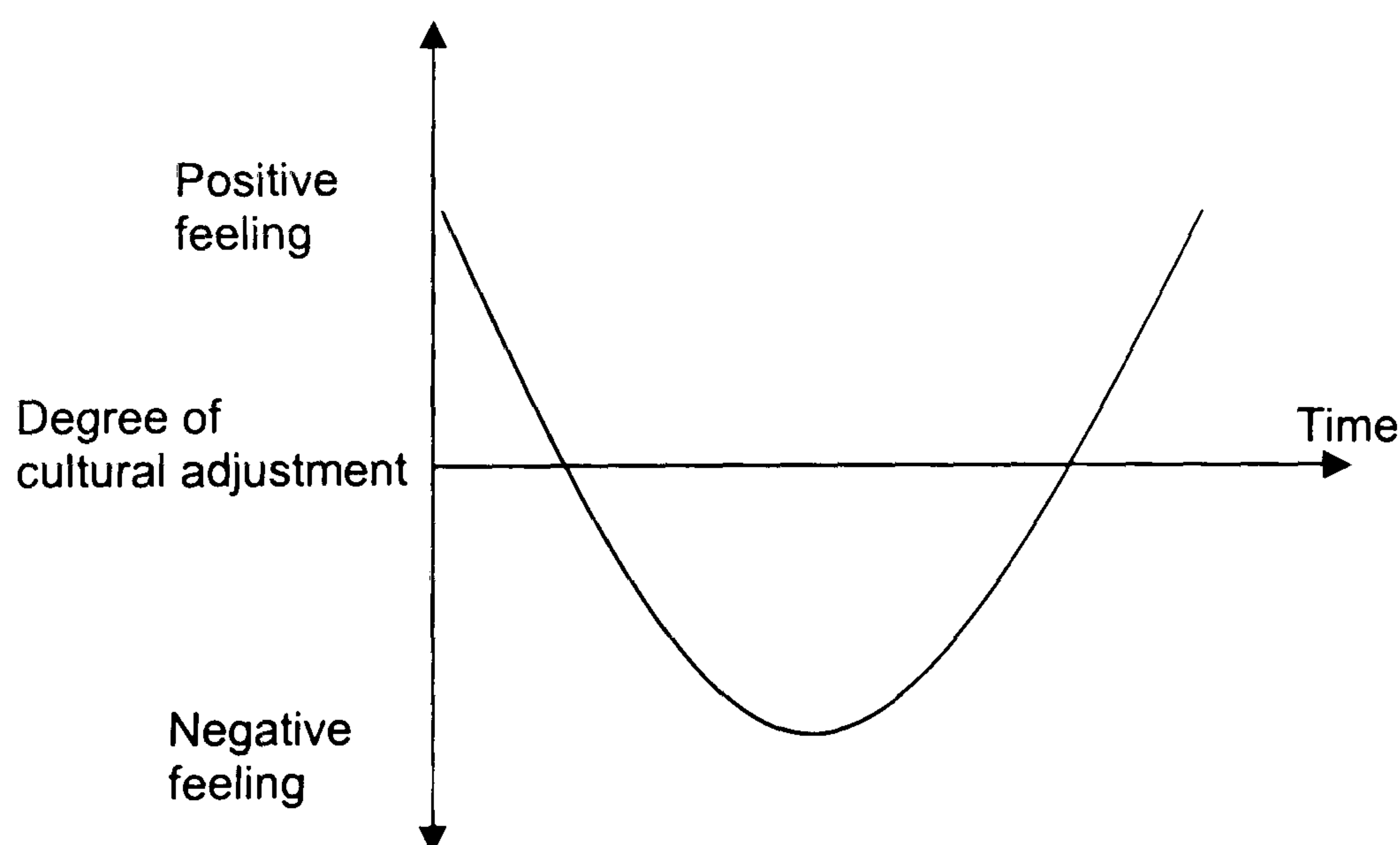
This section will provide a discussion of stage theories of acculturation. This school of thinking has provided an important academic foundation for understanding the acculturation experience in terms of psychological adaptation. The pioneers includes Lysgaard (1955), Oberg (1960) and Gullahorn and Gullahorn (1963).

3.4.1.1 Lysgaard's U-shaped Curve of Adjustment Theory

One of the earliest theories of cultural adjustment comes from a study conducted by Lysgaard (1955) of 200 Norwegian Fulbright travel grantees who had spent time in the United States. His main finding was that the adjustment process over time follows a U-shaped curve. By using cross-sectional research methods, Lysgaard found that those subjects who had stayed in the U.S. less than six months and those who had stayed longer than eighteen months had better adjustment compared with those who had stayed between six and eighteen months. Based on his interviews, Lysgaard (1955) concluded that the data provided evidence of stages of adjustment

over time. The introductory stage is characterized by the initial euphoria that a sojourner feels when first arriving in another culture. During this period most of the contacts with the host nationals or society are still accidental, superficial and segmental. After a time, the novelty loses its appeal and the sojourner begins to feel anxiety for a number of reasons such as limited satisfaction from personal involvement in friendship groups. This leads to loneliness and language problems and causes frustration, confusion, misinterpretations and extra loneliness. Finally the sojourner may learn to cope with the adjustment problems, make friends, and become integrated into the community. The U-curve hypothesis therefore demonstrates a high initial feeling of adjustment followed by a low, then ending on a high as the sojourner adapts to the new environment (see Figure 3.1).

Figure 3.1 Lysgaard's U-shaped Curve Of Adjustment Theory



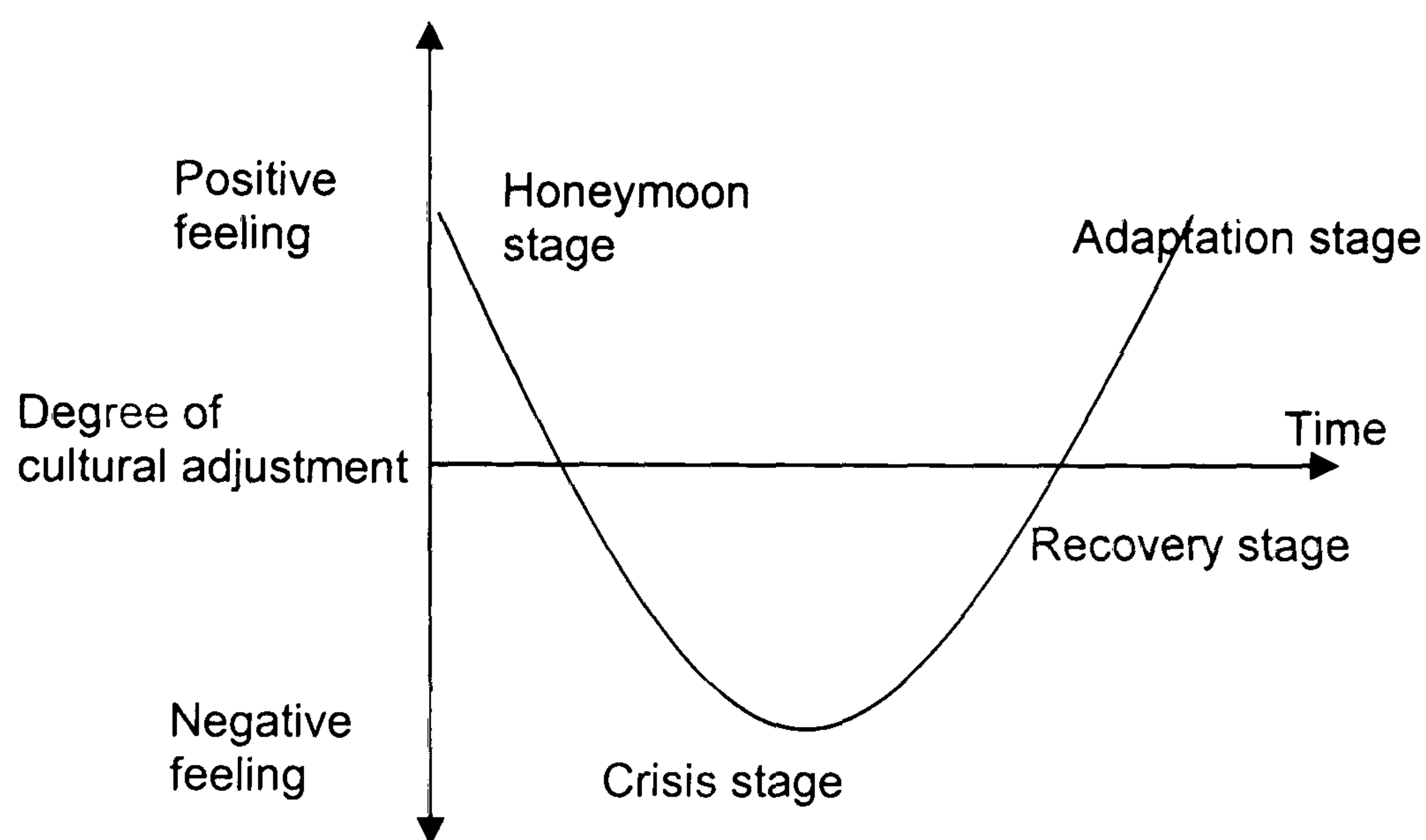
3.4.1.2 Oberg's Culture Shock Theory

Five years after Lysgaard's study, Oberg (1960) coined the term 'culture shock' and extended Lysgaard's notion of cultural adjustment in terms of phases of emotional experiences. He also gave more attention to coping and defined it as the 'recovery stage.'

According to Oberg (1960), culture shock is precipitated by the anxiety that results from losing all familiar signs and symbols of social intercourse. This long-term process of adapting to new cultural behaviours includes physical, biological, and social changes. Culture shock is experienced as a lack of direction, the feeling of not knowing what to do or how to do things in a new environment, and not knowing what is appropriate or inappropriate. The feeling of culture shock generally sets in after the first few weeks of coming to a new place. Oberg (1960) discussed culture shock in terms of four phases of emotional reactions associated with cross-cultural journeys (see Figure 3.2):

1. The honeymoon, with emphasis on the initial reactions of euphoria, enchantment, fascination, and enthusiasm;
2. The crisis, characterised by feelings of inadequacy, frustration, anxiety and anger;
3. The recovery, including crisis resolution and culture learning;
4. The adjustment, reflecting, enjoyment of, and functional competence in, the new environment.

Figure 3.2 Oberg's Culture Shock Theory



Ryan and Twibell (2000) conducted a longitudinal study that involved collecting data at three points in time according to Oberg's four stages of culture shock: phase 1 occurred before students' cross-cultural experience; phase 2 happened when students were abroad approximately two months, which is just after the honeymoon phase; and phase 3 occurred when students concluded their cross-cultural experience. A significant change between phase 1 and 3 was found in their research.

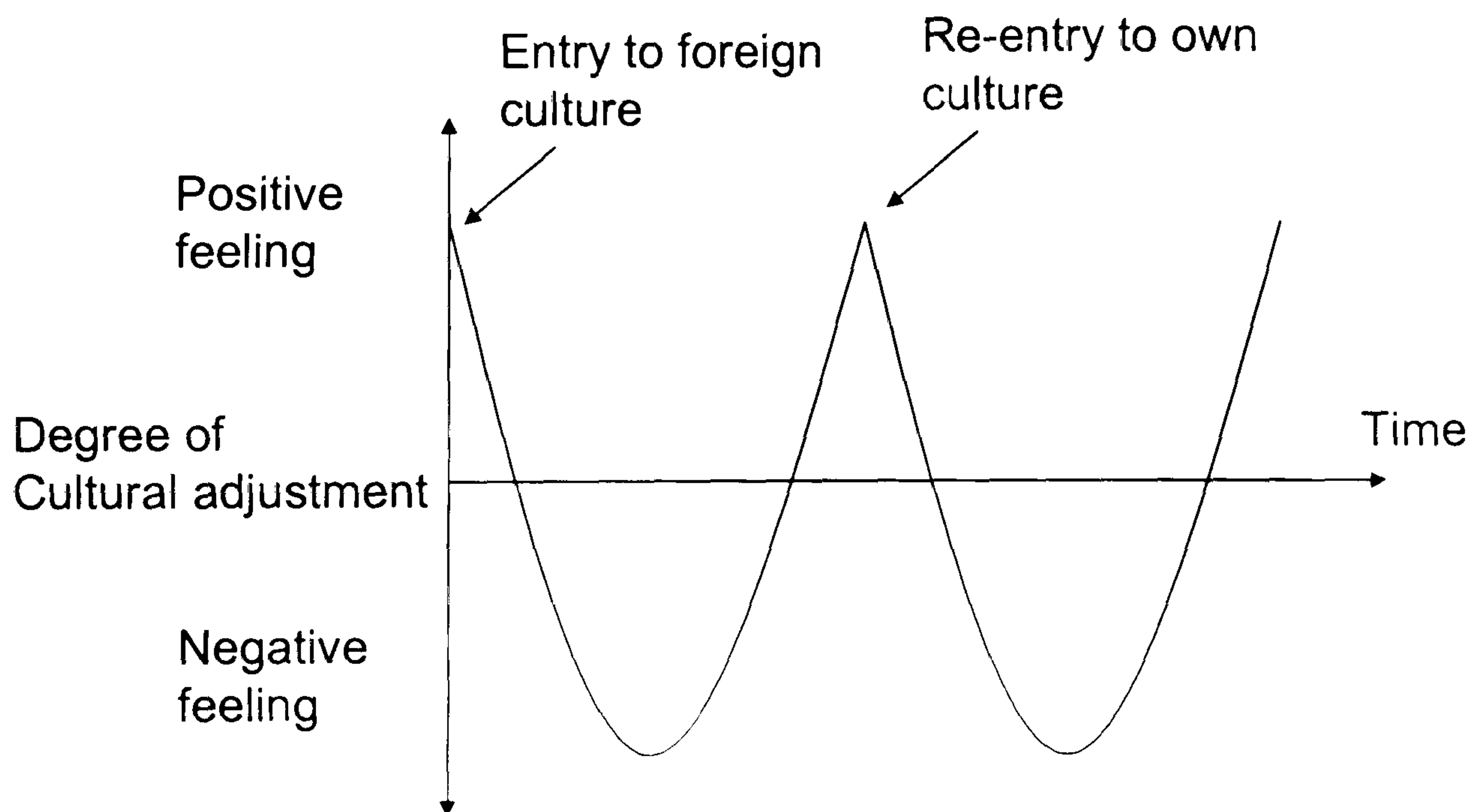
3.4.1.3 Gullahorn and Gullahorn's W-shaped Curve

Gullahorn and Gullahorn (1963) suggest that the sojourners experience a reverse-culture shock upon returning to their homelands. The traveller may find that things are no longer the same. For example, some of the newly acquired customs are not in use in the old culture. The re-entry stage can be elaborated as a second cycle of adjustment. Upon arriving home sojourners once more enjoy a honeymoon stage of

euphoria and elation. This is followed by disillusionment, a recovery and a return to normality. Gullahorn and Gullahorn's extension to accommodate this is known as the W-curve (see Figure 3.3).

These stages are present at different times and each person has their own way of reacting in the stages of culture shock. As a consequence, some stages will be longer and more difficult than others. Many factors contribute to the duration and effects of culture shock. These could include the individual's state of mental health, personality, previous experiences, socio-economic conditions, familiarity with the language, family and/or social support systems and level of education.

Figure 3.3 Gullahorn and Gullahorn's W-shaped Curve



3.4.1.4 Later Work of Cultural Adjustment Theory

In the early research into cultural adjustment, a descriptive approach was mainly used to illustrate the different stages of this culture-shock experience. In the last three decades, researchers have further developed the stage-descriptive approaches by offering different terminologies. In the mid seventies, Adler (1975) described the transition from one culture to another as a process in which the sojourner moves into a higher state of both cultural awareness and self-awareness. Adler's four phases of this transition (contact phase, disintegration phase, reintegration phase and an autonomy stage) closely resemble Oberg's four stages of adjustment (Church, 1982; Nash, 1991). One difference in Adler's phases is that the final stage of transition implies that a sojourner who has reached a high level of cultural awareness will be better prepared to cope with adjusting to a third culture (Church 1982).

Juffer (1983) and Schnell (1996) modified Oberg's culture shock theory by defining the stages of fascination, disenchantment, mental isolation, and adjustment / recovery. Fascination refers to the stage of acculturation where the newcomer or beginner finds the new environment or situation interesting and exciting. Disenchantment occurs as the newcomer encounters problems with being accepted, and with participating in the new environment. Disenchantment often leads to mental isolation where newcomers experience a kind of 'home-sickness' and they may limit or avoid all contact with the new culture and spend more time with their own culture or language group. Adjustment / recovery refer to the improvement in cross-cultural interactions.

Many researchers have criticised Oberg's theory on the grounds that it lacks empirical support (Church, 1982; Ryan & Twibell, 2000), and offers only a one-dimensional construct of the adjustment (Black *et al*, 1991). While there has been some testing of the theory (Brink & Saunders, 1976; Lazarus & Folkman, 1984; Ryan & Twibell, 2000; Ward *et al*, 2001), empirical findings are mixed and the evidence supporting the U-curve shape of adjustment is inconsistent (Church, 1982; Ward *et al*, 2001).

One outcome of this later work was the elaboration of Lysgaard's and Oberg's theory with the proposition that the process of adaptation is multi- rather than one-dimensional. The early theories had focused on the simple dimension of psychological adaptation whereas later contributions identified several aspects of adjustment classified under the heading of social adaptation.

3.4.2 Dimensions of Adaptation

Culture shock is most commonly and traditionally viewed as a normal process of adaptation which involves symptoms of anxiety, helplessness, irritability and demand of more certainty (Church, 1982; Berry, 1997; Ward *et al*, 2001). However, another school of thought views cross-cultural adjustment as a learning experience (Bochner, 1982; 1986; Furnham & Bochner, 1982; Klineberg, 1982). This section will discuss two dimensions of adaptation: psychological and social adaptation.

This two-dimension perspective is supported by the work of Ward and colleagues (2001).

3.4.2.1 Theories that Highlight the Importance of Social Adaptation

Since the 1980s cultural adaptation has viewed as learning process (Brislin, 1981; Bochner, 1982; Church, 1982; Ward *et al*, 2001). Some of the main contributions discussed in this section are those of Brislin (1981), Black and colleague (1991), and Ward and colleagues (2001).

3.4.2.1.1 Brislin's Long-term Adjustment Aspect of Acculturation

Brislin (1981) views acculturation as a process of long-term adjustment that could lead to complete adjustment, in line with Berry's mode of assimilation, or partial adjustment which refers to active participation in some but not at all of the host country's institutions. While Brislin (1981) recognises the importance of psychological adjustment he was one of the first to focus attention of other aspects of adaptation, such as interaction effectiveness and task effectiveness.

Brislin (1981) defined successful sojourning in terms of three aspects: psychological adjustment, interaction effectiveness and task effectiveness. Psychological adjustment refers to general feelings of well-being, satisfaction with the sojourn and feelings of comfort in the new environment. Interaction effectiveness refers to the ability to develop relations with host nationals, participate in their everyday activities and having respect for those activities, as well as feelings on the part of the

host nationals that the sojourner values the interaction and activities. Task effectiveness refers to the ability to fulfil one's goals in the host country.

In addition, Brislin (2000) suggests the importance of skills in cross-cultural contact, including language and communication skills. For example, the sojourner's efforts to speak the language of the host country, even imperfectly, are appreciated by the host nationals. Such skill stimulates interaction effectiveness during the acculturation process. Since adaptation can be learned as a skill, Brislin suggests cross-cultural training can help overcome adaptation difficulties and decrease the possibility of stress.

3.4.2.1.2 Black and Colleagues' Intercultural Adjustment Model of Expatriates

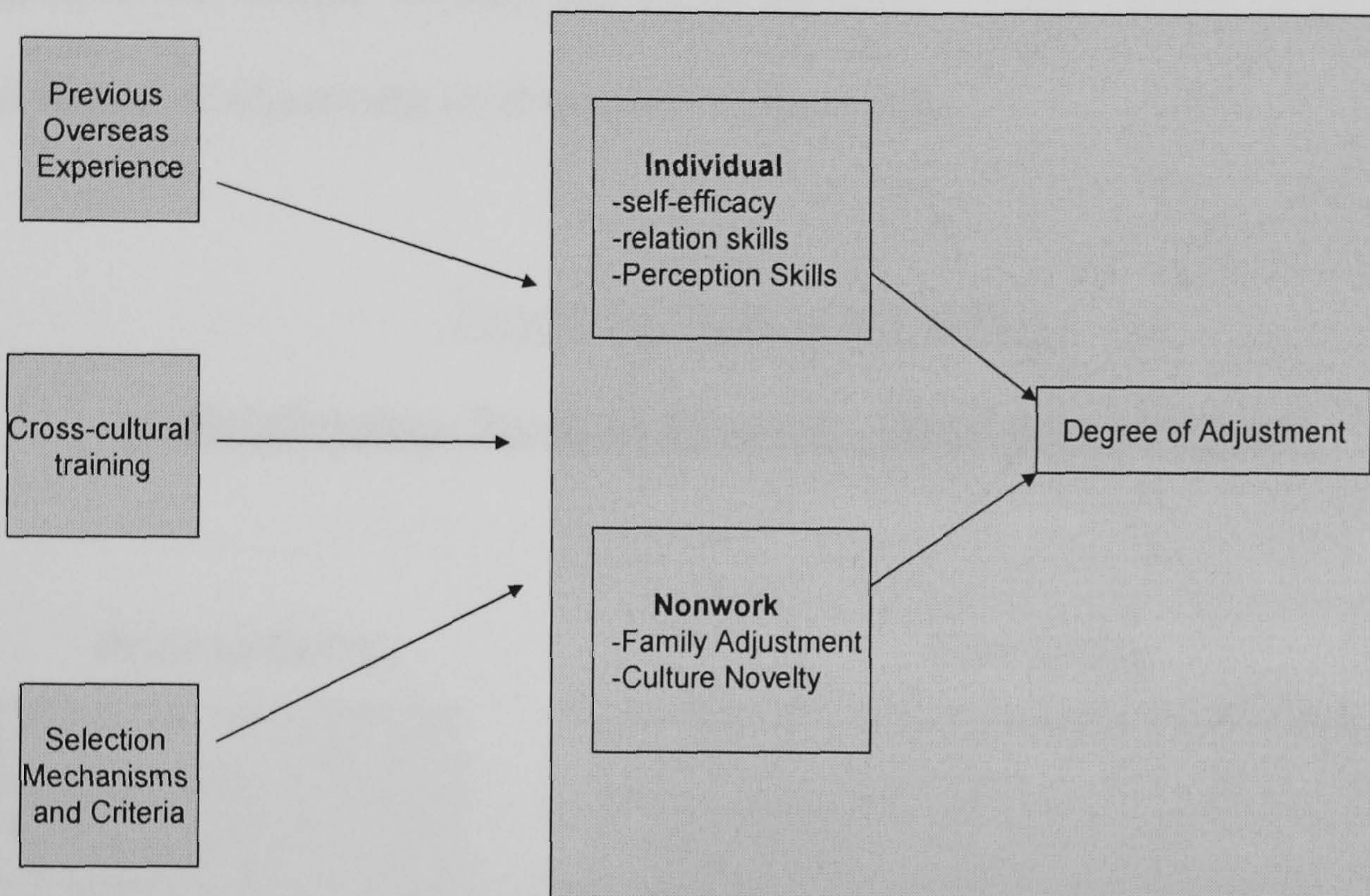
Black and co-workers (1988; 1991) criticise the unitary construct of adaptation as proposed by Oberg (1960) and Gullahorn and Gullahorn (1963). They suggest that there are at least three specific facets of international adjustment: adjustment to work, adjustment to interacting with host nationals, and adjustment to the general environment.

Figure 3.4 Black *et al* (1991)

Relationships Based on International Adjustment Literature

Prior to leaving

After Arrival

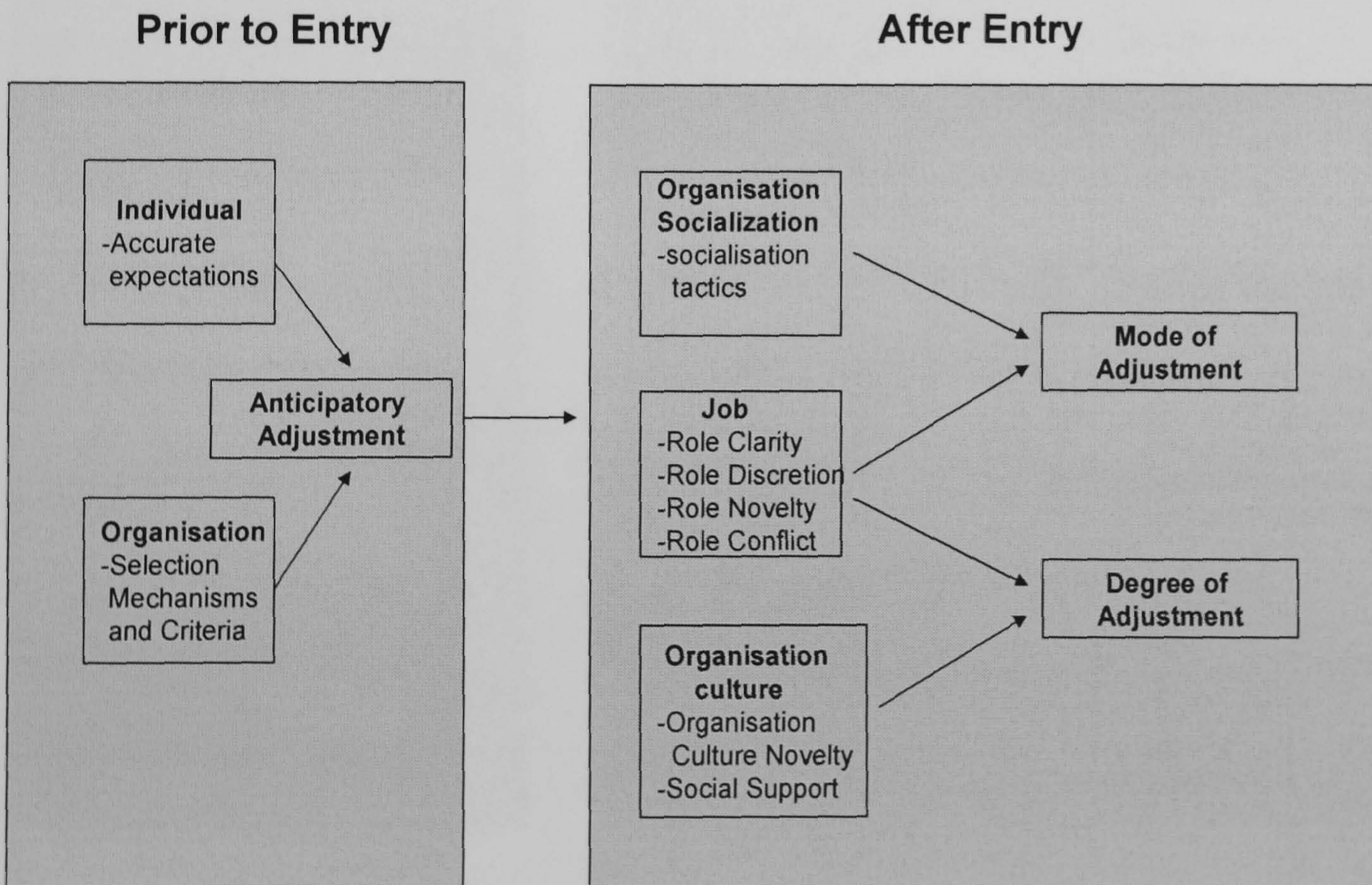


Black, Mendenhall and Oddou (1991) provide a framework which integrated both acculturation and socialisation theories. In terms of the acculturation perspective, they identify three categories of predeparture variables and two post arrival variables. The former includes previous experience, predeparture training and candidate selection. The latter refers to individual skills (i.e. self-efficacy, relation skills and perception skills) and to non-work factors (i.e. family adjustment and culture novelty) (see Figure 3.4). The socialisation framework was termed 'domestic adjustment.' They proposed that this consists of two stages: prior to entry

and after entry. Before entering the organisation, both individual factors (i.e. accurate expectations) and organisational factors (i.e. selection mechanisms and criteria) are very important since they result in a process of anticipatory adjustment. After entry, three factors influence the adjustment. They are organisational socialisation factors (i.e. socialisation tactics), job factors (i.e. role clarity, role discretion, role novelty and role conflict) and organisational culture factors (i.e. organisational culture novelty and social support). These factors influence mode and degree of adjustment as illustrated in Figure 3.5.

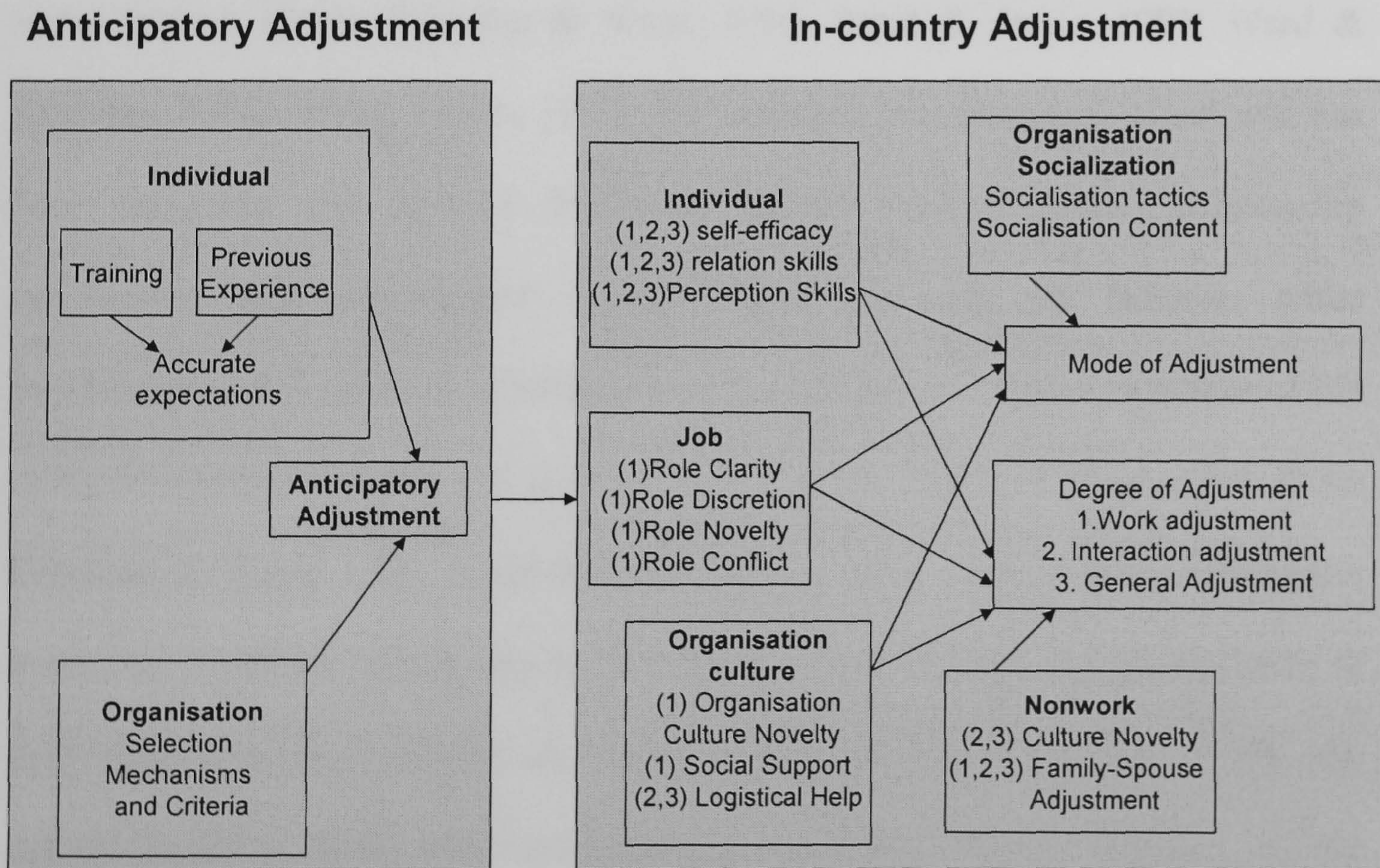
Figure 3.5 Black *et al*'s (1991)

Relationships Based on Domestic Adjustment Literature



Combining the above theories of international and domestic adjustment, Black and colleagues (1991) propose the Framework of International Adjustment for the purpose of expatriate acculturation (see Figure 3.6). This expatriate acculturation framework has led to further studies in the field (Nicholson & Inaizumi, 1993; Paker & Mcevoy, 1993; Harrison *et al*, 1996; Aycan, 1997; Selmer, 1999; Shaffter *et al*, 1999). Black and colleagues' work (1991) expanded the acculturation theory to include more aspects of the process rather than simply focus on the degree of overall adjustment to the new culture.

Figure 3.6 Black *et al*'s (1991) Framework of International Adjustment



3.4.2.1.3 Ward's Acculturation Outcomes and Acculturation Model

According to Ward and colleagues (1998), cross-cultural transition can be predicted by different variables. They propose that there are two domains for cross-cultural adaptation: psychological and sociocultural. The former refers to psychological well-being or satisfaction while the latter is related to the ability to 'fit in.' Accordingly, Ward and colleagues (1999) argue that psychological adjustment can be best understood in terms of a stress and coping framework while sociocultural adaptation is best explained within a social skills or culture learning paradigm. Psychological adjustment, operationalised in terms of depression or global mood disturbance, is strongly influenced by personality, life changes, coping style and social support (Stone Feinstein & Ward, 1990; Ward & Searle, 1991; Ward & Kennedy, 1992; 1993a; 1993b; 1999). For example, psychological adjustment has been associated with personal flexibility, internal locus of control, relationship satisfaction, approach-oriented coping styles, and use of humour, while psychological difficulties in sojourners have been linked to a higher incidence of life changes, loneliness, stress, and avoidant coping styles (Searle & Ward, 1990; Stone Feinstein & Ward, 1990; Ward & Rana-Deuba, 1999). Sociocultural adaptation, measured in relation to the amount of difficulty experienced in the performance of daily tasks, is more dependent on variables such as length of residence in the new culture, language ability and fluency, culture knowledge, cultural distance, and the amount of interaction and identification with host nationals and acculturation strategies (Searle & Ward, 1990; Ward & Kennedy, 1992; 1993a; 1993b; 1999).

Ward and colleagues (2001) propose the acculturation process model which is largely guided by the work of Lazarus and Folkman (1984), Furnham and Bochner (1986), Berry (1994), and Ward (1996). This model offers an organising framework for the synthesis of a large and diverse body of theory and research on the affective, behavioural and cognitive components of cross-cultural transition and intercultural interactions.

Psychological and sociocultural adjustment exhibits different patterns of fluctuation over time. The greatest adjustment difficulties occur at point of entry in both cases; however, sociocultural problems steadily decrease and gradually level off, whereas psychological distress is more variable over time (Ward & Kennedy, 1996a; 1996b; Ward *et al*, 1998). Several questions were also raised by Ward and colleagues (2001) particularly with regard to research into international students. One of their interests was in the factors which can predict sociocultural adaptation. Culture-specific knowledge, language fluency, more extensive contact with host nationals, cultural similarity and a longer period of residence in the host culture are associated with lower levels of sociocultural difficulty (Ward, 1996). Another interest would be in the change, if any, of sociocultural adaptation over time. Their interest has led them to conduct extensive cross-sectional and longitudinal studies in the cross-cultural adjustment context.

3.4.2.2 Theories that Highlight the Importance of Psychological Adaptation

One of the most recognised dimensions of adaptation is the psychological consequence of cross-cultural changes. Psychological consequences are most often presented in terms of stress or anxiety. Reports on psychological adaptation were presented by Hammer and colleagues (1978), Lazarus and Folkman (1984), and other research on acculturative stress.

3.4.2.2.1 Lazarus and Folkman's Stress and Coping Framework

Lazarus and Folkman (1984) believe that person-related variables have a link with cognitive appraisal of situations (see Figure 3.7). These variables include past experience, personal values and goals and the demographic profile. There are two aspects of the cognitive appraisal of situations: primary (i.e. personal well-being) and secondary (i.e. coping, strategy selected). During primary cognitive appraisal, the individual can perceive the situation as challenging, which leads to positive emotions, or threatening/harmful, which results in negative emotions. In secondary appraisal, coping strategies are selected which leads to the adaptation outcomes.

Lazarus and Folkman's work has been recognised as the most influential work for the study of human response to stress (Ryan & Twibell, 2000). Many researchers were influenced by their theory (Berry, 1997; Ryan & Twibell, 2000; Ward & Rana-Deuba, 2000). Ryan and Twibell (2000) extended the above theory into a cultural adjustment context and concluded that the research in the field of acculturative stress

lacked a real meaningful context and was only filled with cross-sectional studies. They therefore decided to conduct a longitudinal study on foreign students and collected data at three different time points: at the start of their course, after two months and at the end. The results showed that social isolation and communication have a positive relationship with culture shock.

Figure 3.7 Lazarus & Folkman's (1984) Theory of Stress and Coping

Person-related and environmental variables	Primary stress appraisal	Secondary coping	Adaptational outcomes
Personal values and commitment	Challenge	Coping response	Health
Past history	Threat	Coping effusiveness	Social functioning
Ambiguity	Harm-loss		Morale
Novelty	Begin-positive		

3.4.2.2 Hammer and Colleagues' Intercultural Effectiveness

In response of the Oberg's broad cultural shock theory, Hammer, Gudykunst and Wiseman (1978) explored the specific ways a sojourner may effectively deal with intercultural stress. They studied 53 American students who were considered to have functioned effectively in a new culture for at least three months. Twenty four relevant abilities were factor analysed for the purpose of understanding the effective intercultural functioning. The findings propose three dimensions of effective intercultural functioning: the ability to deal with psychological stress, the ability to communicate effectively and the ability to establish interpersonal relationships. The relationship between psychological stress and effective functioning was reported to be in line with previous findings (Gullahorn & Gullahorn, 1963; Brein & David, 1971; Adler, 1975).

Based on Berger and Calabrese's (1975) uncertainty reduction theory, Gudykunst and Hammer (1988) propose a theory of uncertainty/anxiety reduction in a intercultural interactions setting. Gudykunst (1993; 1998) developed this work and proposed Anxiety/Uncertainty Management theory (AUM). In the theory they propose that uncertainty reduction can embrace the cross-cultural communication. They have also found out that attributional confidence and level of anxiety have a negative relationship. When attributional confidence is increased, the level of anxiety is reduced. Reduced anxiety strengthens adaptive behaviour. When attributional confidence is low and anxiety level is high the outcome is maladaptive behaviour.

Hullett and Witte (2001) conducted research based on AUM theory and found that the uncertainty control process seems to allow people to feel more confident and more comfortable in the interaction. However, anxiety control can lead to isolation than adaptation. This is because individuals seek more comfort within the familiar setting of their own in-group, rather than risk further stress through cross-cultural interaction.

3.4.2.2.3 Other Studies on Acculturative Stress

Many researchers have undertaken longitudinal investigations to study cultural adjustment over time based on the U-curve hypothesis. One study (Nash, 1991) fails to detect significant differences in psychological adjustment over time. However, most studies report a decrease in psychological adjustment between departure and arrival (Ying & Liese, 1991), and a rapid improvement in psychological adjustment in the early stages of the sojourn (Lu, 1990; Ward & Kennedy, 1996a).

Westermeyer, Neider and Callies (1989) undertook one of the most comprehensive longitudinal investigations into Hmong refugee adaptation in the United States at three points in time over a 6 years period. The results were mixed. The study found that the refugees' depression, as measured by the Zung's Self-Rating Depression Scale (SRDS), decreased between the first and second testing, but increased at the third time period.

Ward and Chang (1997) report that Zung's SRDS has been used extensively in cross-cultural studies (Zung, 1969; 1972) and has consistently proven to be reliable and valid in their own research with diverse multi-national samples (Ward & Kennedy, 1992; 1993a; 1993b; 1999). Thus the measure could not be the reason for the mixed results from the Hmong study. Instead, Ward and colleagues (2001) argue that the choice of the first testing time (when Hmong refugees had been resident in the United States for an average of 1.5 years) led to the mixed findings and missed the most variable stage of cross-cultural adaptation happening at the very beginning.

Ward and Kennedy's (1996a) study on Malaysian and Singaporean students in New Zealand, using Zung's SRDS, revealed that students experienced the greatest amount of depression (psychological adjustment problems) within the first month of arrival. Depression dropped significantly after 6 months in the country and rose again slightly 6 months later. However, in another longitudinal study of 35 Japanese students in New Zealand, Ward and colleagues (1998) found that the psychological measurement of the adaptation failed to demonstrate the popular U-curve of adjustment. The time course for data collection was within 24 hours of arrival, and at 4, 6, and 12 months in New Zealand. However, the study did show that adjustment problems were the greatest at entry point and decreased over time. An explanation offered by Ward and colleagues (1998, p288) for their failure to identify the U-curve of psychological adjustment was the removal of 12 items from the original scale. This was done to achieve sufficient internal consistency for the Japanese translated version.

Klineberg and Hull (1979) undertook a huge study of foreign student adjustment using both cross-sectional and longitudinal methods. They reported no support for a U-curve in depression, loneliness or homesickness in their cross-sectional data from foreign students in both developing and industrialised countries, while only a small amount of their in-depth longitudinal cases showed U-curve adjustment.

3.4.3 Acculturation Attitude

3.4.3.1 Berry's Acculturation Mode and Acculturative Stress

Apart from the aforementioned contribution of interaction effectiveness and psychological experience in a new culture, Berry (1974; 1984; 1994) has also provided an important theory of acculturation mode which defines individuals' attitude and motivation towards the experience of adapting into a new culture. He argues that cultural maintenance (how much foreigners strive to maintain their cultural identity and characteristics) and contact and participation (how much foreigners become involved with the host society's population) influence acculturation.

Berry (1974; 1984; 1994) proposes the presence of two fundamental dimensions of acculturation: the maintenance of the original cultural identity and the maintenance of relations with other groups. If the evaluative responses to these two dimensions are deconstructed, then four acculturation strategies may be distinguished: Assimilation, Integration, Separation and Marginalisation (see Figure 3.8). Foreigners using either the Assimilation or Integration strategy seek daily

interaction with people in the host culture. Naturally, they will be influenced by the host society's values and preferences and learn appropriate behaviours for the new cultural context more than foreigners using the Separation or Marginalisation strategies. Cultural distance between foreigners' native culture and a new culture is another factor influencing acculturation. Studies from Berry (1997) and other researchers (Ward & Rana-Deuba, 1999) revealed the positive relationship between integration and successful cross-cultural adjustment.

Figure 3.8 Berry's Four Strategies of Acculturation

		Maintenance of original culture	
		No	Yes
Participation of host culture	Yes	Assimilation	Integration
	No	Marginalisation	Separation

According to Hovey and King's study (1996), acculturative stress was positively correlated with depression and suicidal tendencies among immigrant and second-generation Latino adolescents. Moyerman and Forman (1992) conducted a meta-analysis of literature on the relationship between acculturation and adjustment. The results indicate that stress and anxiety may be acute at the very beginning of the acculturation process for higher socio economic status Asian-Americans. However, as acculturation progresses, they may be inclined to feel less stress and anxiety. Results also indicate a positive relationship between acculturation and psychosocial/health problems.

In addition, development of ethnic support system enhances the immigrants' ability to cope with acculturative stress. There are several factors which relate to the foreigners' mental health such as acculturation strategies, strength of ethnic identity, and length of stay in a foreign country. Strong ethnic identity and Berry's Separation Acculturation Strategy were related to a higher level of depression, lower self-esteem, and higher level of stress than the other acculturation strategies (Assimilation, Integration, and Marginalisation) (Damji *et al*, 1996). Assimilation of the U.S. culture, while maintaining strong ties with other co-culturals and American people, were related to personal adjustment of international students (Al-Sharideh & Goe, 1998). Iranians who were culturally incorporated or culturally shifted tended to have better mental health than those who were culturally resistant (Ghaffarian, 1998).

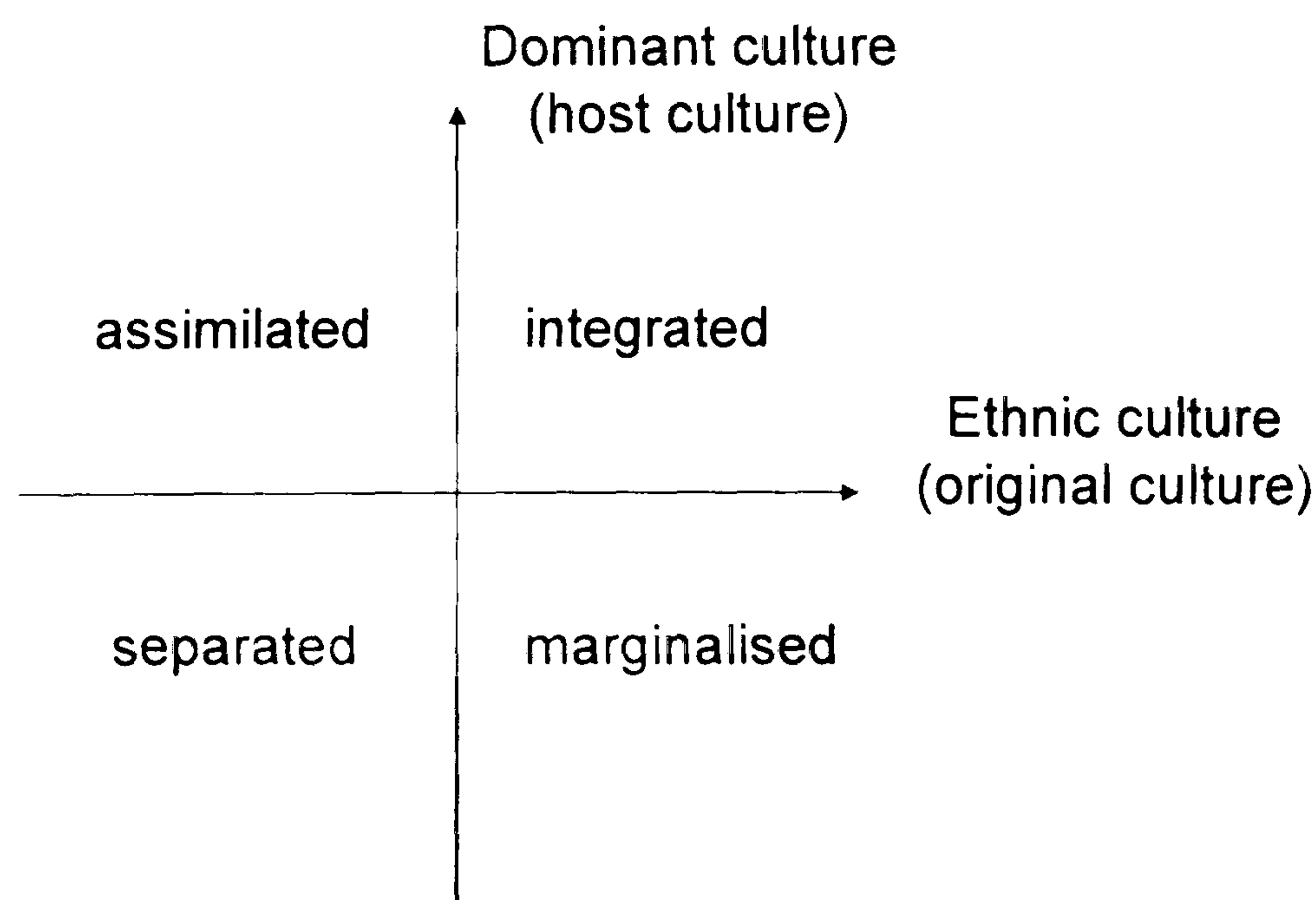
3.4.3.2 Stephenson's Acculturation Scale

This theme was developed by Stephenson (2000) in an elaboration of Berry's model, in which he proposed the addition of levels of original and ethnic cultures in order to measure the degree of acculturation (Stephenson Multigroup Acculturation Scale, SMAS). An integrated (bicultural) individual would score high on both Dominant and Ethnic scales (see Figure 3.9). For example, a British-born Chinese in this mode might work and be friends with the dominant group (British), but choose to speak Chinese at home and marry within the Chinese community. A separated individual would score high on Ethnic, but low on Dominant. Individuals living in ethnic enclaves like China Town, Little Italy, etc, are likely to belong to this mode. An assimilated individual demonstrates high Dominant and low Ethnic; an individual who rejects their country of origin might be of this mode. A marginalised individual

would score low on both the Dominant and Ethnic Society Immersion subscales. Identifying with no particular set of beliefs. These four strategies have been found to relate in a predictable fashion to other features of the acculturation process such as changes in socio-economic status, education, friendship patterns, and language use (Berry *et al*, 1989).

The marginalised mode is the least adaptive and associated with the most psychological problems and stress levels. Accepting / being accepted by neither the mainstream nor country of origin, it is much easier for the individual to experience a number of excess stressors perpetuated by a lack of social support. A separated mode might be for an individual who associates only with individuals of similar cultural background. While they are immersed and accepted in the ethnic society, they may not accept the mainstream belief structure, and/or mainstream society may alienate the individual. This mode is commonly observed when there is a language barrier. The integrated and assimilated modes are considered the most psychologically healthy adaptation styles.

Figure 3.9 Stephenson's Model of the Four Modes of Acculturation



3.4.3.3 Collier's Acculturation Matrix

Collier (2004) further refined the four strategies of acculturation into an Acculturation Matrix, based on her work with Hispanic children integrating into the American society. Again, acculturation is divided into four groups or quadrants as illustrated in Figure 3.10. The positive attitudes are in the upper quadrants, named Assimilation and Integration. Assimilation occurs when the home or heritage culture and language are completely replaced by the second or new language and culture, for example, behaviours, words, clothing, manners, or other characteristic patterns. In the Integration group, the student of concern (a Hispanic student in Collier's study) has integrated languages, behaviours, clothing, food, religion, and other characteristic patterns from both the mainstream (American) and his or her home/heritage (Hispanic). The lower two quadrants are considered negative and destructive responses to acculturation. Rejection is when a person intentionally, and by deliberate choice and action, chooses to adhere to only one pattern of behaviour and language. The user may reject the new culture and language situation and while living in this environment keep using only their home or heritage language, practising only their traditional way of life, food, clothing, shelter, and so forth, with absolutely no attempt at integration. Deculturation is the loss of connection to the traditional, home or heritage culture and language while not making the transition to the new culture or language. This can result from marginalisation. Marginalisation represents the attitude of an individual with no interest in maintaining or acquiring proficiency in any culture, native or host.

Figure 3.10 Collier's (2004) Acculturation Matrix

Assimilation	Integration
Home/heritage replaced by School/new culture & language	Home/heritage blended with School/new culture & language
Deculturation	Rejection
Acceptance of neither Home/heritage nor school/new Culture/language	Intentional rejection of Home/heritage for school/new Culture & language OR Intentional rejection of school/new for home/heritage

3.5 Factors Affecting Adaptation

Psychological adaptation, social adaptation and motivational orientation can be affected by a number of factors. Based on the literature review, the following factors appear to be important: cultural distance, predeparture training, past western experience, interaction with host culture, language proficiency, individual differences and gender.

3.5.1 Culture Distance

Culture distance refers to how similar two cultures are in terms of language, religion etc. Many researchers have found in their research that cultural distance has an important influence on adaptation (Furnham & Bochner, 1982; Ward & Kennedy, 1993a; 1993b; 1999) with the greater the cultural difference, the less positive the adaptation.

Berry (1980b) also found that variations in stress and culture change patterns were dependent to some extent upon the cultural and psychological characteristics of the culture group, and the degree and nature of previous contact with culturally diverse groups. Groups experience lower stress when their culture is more similar to the second culture and has greater contact with the other cultural group (cultural distance). Berry (1976) found that some Native American groups experience high stress when the traditional culture is less similar to the second or mainstream culture. Studies by Ward and Kennedy (1999) on English and Chinese sojourners in Singapore also showed that the English group showed more sociocultural difficulties than the Chinese group. Likewise, Malaysian sojourners had more difficulties in New Zealand than in Singapore. Thus cultural distance might exist and have an impact on acculturation. The closer a sojourner's own culture to the host culture, the less difficulty or stress he or she might experience, and this leads to a better adaptation. Berry (1997) suggests that this is due to the fact that greater cultural distance implies the need for greater culture shedding and culture learning, and perhaps large differences trigger negative inter-group attitudes and induce greater culture conflict leading to poorer adaptation.

Furnham and Bochner (1982) developed the Social Situations Questionnaire in order to assess the amount of difficulty experienced in a variety of routine social encounters. They used this measure to investigate the effect of cultural distance of different groups of students on social difficulty. Their study included the United Kingdom as the host culture, with a 'near' group consisting of North European countries such as France, Holland and Sweden, an 'intermediate' group consisting of South European (Italy & Spain) and South American countries (Venezuela & Brazil), and a 'far' group consisting of Middle Eastern and Asian countries such as Egypt, Saudi Arabia, Indonesia, and Japan. The findings from the study supported the concept that social difficulty was a function of cultural distance, i.e. students who came from culturally proximal regions experienced less social difficulty.

3.5.2 Cultural Training/Language Training

Many researches have shown the positive impact of predeparture knowledge on adjustment (Black, 1988; Tsang, 2001), although some demonstrated a negative impact (Nicholson & Inaitumi, 1993) or mixed impact (Tsang, 2001). Brislin (1981) and Goldstein and Smith (1999) showed that training has a positive effect on sojourners' adaptability. They argue that training can help sojourners' emotional resilience, flexibility, openness, perceptual accuracy and personal autonomy. All these improvements will improve the likelihood of success of intercultural experience and adaptability.

3.5.3 Past Western Experience (work/non-work)

Accurate anticipatory expectation reduces the possibility of fantasy, and a perception that is closer to reality. These realistic expectations can be gained by cross-cultural training before departure and the gathering of relevant information. By knowing what the cultural shock experience might be from training or reading, people might be more prepared for the future and cope with otherwise unexpected shock.

Witkin (1978) and Kolb (1984) argue that career shapes people's learning styles. If individuals have more extensive previous work experience with Westerners or the Western culture, they may be more prepared and aware of situation they will get into and experience less excitement or stress when going abroad to work in a team with people from different countries. Many studies have shown the positive effect of prior international experience on adjustment (Klineberg & Hull, 1979; Church, 1982; Black, 1988; Parker & Mcevoy, 1993). Berry (1980b) also found that variations in stress and culture change patterns were dependent to some extent upon the cultural and psychological characteristics of the culture group, and the degree and nature of previous contact with culturally diverse groups.

3.5.4 Interaction with the Host Culture and Adaptation

Interaction with host culture can usually be considered from three aspects: the attitude, the extent and the quality.

Furnham (2004) argues that short holidays are less likely to have produced culture shock than extended stays or working experiences when local culture has been 'fully engaged.' Thus, the perception by the foreign students of whether they are on a short temporary stay or a long stay can affect their approach to adaptation. Berry (1997) argues that students share the same acculturation process as migrants. Many studies have shown that an attitude of integration or assimilation provide less sociocultural difficulties and stress (Berry, 1997).

Berry (1997) argues that degree of voluntariness in migration motivation is an important factor affecting the acculturation process. Richmond (1993) suggests that 'reactive' and 'proactive' are the two extreme types of migrant. The former are motivated by factors that are constraining or exclusionary, and generally negative in character. The latter are motivated by factors that are facilitating or enabling, and generally positive in character. These contrasting factors have also been referred to as push/pull factors in the literature on migration motivation (Berry, 1997). Kim (1988) found that those with high push motivation had more psychological adaptation problems while those with high pull motivation had almost as great a number of problems. It appears that both the extreme reactive and proactive types are at risk. Berry (1997) explains that where proactive groups experiencing high stress this might be due to their failure to achieve excessively high or unrealistic expectations about life in the new society.

Sojourners might have different reasons to go abroad. Some come for the education while others might come for military or business purposes. Compared to the self-motivated immigrants who proactively seek acculturation (Ward *et al*, 2001),

international students may exhibit many different reasons for studying abroad. These may include self-improvement, being more competitive in job markets, broadening their horizon or simply family or peer influence (Furnham, 2004). A proactive attitude will result in a greater willingness to engage with the new culture and proactively seek opportunities to interact with the host culture, which in turn leads to integration of the individual's cognitive style with that of his or her counterparts in the host culture.

Ward and colleagues (2001) also found that student sojourners who have more extensive interactions with host nationals, and who are more satisfied with these relationships, experience less sociocultural adaptation problems than others. The extent of interaction can result from friendship, education, accommodation, daily language used, cultural knowledge and effective communication (Hammer *et al*, 1978; Brislin, 1981).

In addition to the extent and the attitude of interaction being found supportive for psychological adjustment, Furnham (2004) also suggests that the quality of interaction (e.g. quality of friendship) with host culture is sometimes more important. Bochner *et al* (1977) suggests a friendship network which includes bonds with fellow compatriots, formal relationships with local students, other overseas students, teachers, university staff and government officials, and friendships with other non-compatriot foreign students.

3.5.5 Language Proficiency and Adaptation

Language proficiency helps people to communicate better in a foreign country and helps them to make friends and build up social networks. It is an efficient way to collect the information needed to reduce uncertainty and unfamiliarity. This in turn decreases the acculturative stress so that adaptation becomes smoother, and the individual is helped to build up confidence and positive motivation. Brislin (1981) argues that intercultural communication is important for successful adaptation. It decreases misunderstandings and helps to improve the quality of relationships with host nationals. Tsang (2001) argues that language competence is one of the important factors for helping sojourners to succeed in their work or academic activities. Other studies have also offered evidence of this positive relationship between language competence and adaptation (Brislin, 1981; Church, 1982; Tsang, 2001, Ward *et al*, 2001).

3.5.6 Individual Difference and Adaptation

The relationship between individual differences and reaction to acculturative stress is mixed. Ward and colleagues (2001) report that many researchers have shown a positive interplay between cross-cultural adjustment and personality factors such as ambiguity tolerance (Cort & King, 1979), mastery (Sam, 1998), stress tolerance (Mendenhall & Oddou, 1985; Stening & Hammer, 1992), self-efficacy and self-monitoring (Black *et al*, 1991; Harrison *et al*, 1996; Ward *et al*, 2001) and extroversion (Tsang, 2001). In contrast, other research has shown a relationship between psychological adjustment problems and dogmatism (Taft & Steinkalk,

1985), attributional complexity (Stephan & Stephan, 1992), neuroticism and psychoticism (Furukawa & Shibayama, 1993; Ditchburn, 1996). Black and colleagues (1991) argue that self-efficacy, relation and perception skills can aid adaptation. Ward and Rana-Deuba (1999) argue that personality and cognitive factors such as self-esteem and cognitive style, personal variables such as sex and ethnicity, attitudes toward acculturation and even macro social and political factors such as the degree of cultural pluralism extant in the wider society are particularly significant predictors for acculturative stress.

3.5.7 Gender and Adaptation

There may be gender differences in the perception of the environment and reaction to the stress. Ward and colleagues (2001) argue that gender has in fact, a mixed impact on acculturation. Some studies have shown positive adaptation in the male group (Beiser *et al*, 1988; Furnham & Shiekh, 1993) while others have shown either no gender difference (Furnham & Tresize, 1981; Nwadiora & McAdoo, 1996) or poor adjustment in the male group (Boski, 1990). Ward and colleagues (2001) have cited studies that refer to gender difference in adaptation. Asian girls were found to be more acculturated than boys in British schools (Singh Ghuman, 1997) and Chinese male students were found to be more traditional in their behaviour than female students in Toronto (Tang & Dion, 1999). Berry (1997) argues that gender has a variable influence on the acculturation process with many studies having shown that females may be more affected by problems than males (Beiser *et al*, 1988; Carballo, 1994).

3.6 Research Designs and Instruments used to Study Acculturation

Many early studies were cross-sectional while later studies made greater use of longitudinal research designs to investigate the stages of the adjustment. Church (1982) asserts that some of the deficiencies of earlier studies included the lack of comparison between groups from the different host country, an overreliance on questionnaires, over attention to psychological rather than sociological factors and lack of longitudinal studies (Church, 1982; Ward *et al*, 2001; Furnham, 2004). Many of these concerns are shown by Church (1982), Berry (1997) and Ward *et al* (2001). Furthermore, different measurements (including many that were self-developed or partially adapted) were used to assess psychological well-being and social difficulties. This made it difficult to compare findings and develop meta-analysis. This next section reviews some of the most widely used measures of adaptation.

3.6.1 Zung's Self-Rating Depression Scale (SRDS)

Zung's Self-Rating Depression Scale (ZSRDS) has been used extensively in different contexts for the assessment of depression among migrants. Zung's SRDS employs four-point frequency scales ranging from 'a little of the time' to 'most of the time.' It assesses the affective, physiological and psychological components of depression. Scores range from 0 to 60 on 20-item scales with higher scores associated with greater levels of depression (i.e. poorer psychological adjustment).

Marsella and colleagues (1981) compared Chinese-American, Caucasian, and Japanese-American undergraduates in Hawaii using the ZSRDS. They found that even though all the depressives showed higher levels of body-image dissatisfaction regardless of ethnicity and gender, there were ethnic and gender differences with regard to dissatisfaction with specific body parts.

Chang (1985) also employed the ZSRDS to compare the configurations of depressive symptomology of overseas Chinese college students with African-American and Caucasian college students in the United States. He found variations in depressive symptoms among different groups. Overseas Chinese showed somatic complaints while an African-American group exhibited a mixture of somatic and affective complaints, and a Caucasian group showed existential and cognitive concerns.

Zung's scale covers affective, physiological and psychological components of depression. It has been widely used in the cross-cultural studies, both cross-sectional and longitudinal (Cheung, 1996). The scale has been extensively used among the Chinese abroad, including in Hong Kong (Lee, 1991), Singapore (Ward & Kennedy, 1999) and P.R. China (Liu *et al*, 1991). Chang (1985) showed that the Zung's self-rating depression Scale is valid in testing overseas Chinese. In longitudinal studies, Zung's scale has proved useful in investigating the individual's cultural adjustment over time (Westermeyer *et al*, 1989, Ward & Kennedy, 1999). Searle and Ward (1990) argue that the Zung SRDS scale demonstrated validity with Chinese and Singaporean participants. They reported an alpha reliability of 0.79 for

an adapted 19-item SRDS scale. The Zung scale is therefore generally regarded as reliable and valid across cultures.

3.6.2 Beck Depression Inventory (BDI)

The Beck Depression Inventory (BDI) (Beck, Rush, Shaw & Emery, 1979) was devised to relate depressive symptoms among individuals to their life stresses. It contains 21 items and in a self-report format. Studies using the BDI have been reported in several Asian countries such as Taiwan (Huang *et al*, 1983), Hong Kong (Shek, 1990, 1991) and China (Zheng *et al*, 1988). However, the Chinese version of BDI was found to be less applicable in China in a study of 329 depressed patients from 24 hospitals across China by Zheng *et al* (1988).

3.6.3 General Health Questionnaire (GHQ)

The General Health Questionnaire (GHQ) is a measure of current mental health and was devised by Goldberg in 1970s. The original version contains 60 items and was subsequently reduced in a number of shortened versions. It has also been extensively used in different culture and settings such as Hong Kong (Chan & Chan, 1983), China (Xiao & Yan, 1993), and Australia (Donath, 2001). Each item is rated on a four point scale ('less than usual', 'no more than usual', 'rather more than usual', and 'much more than usual'). The total score of the 12-item GHQ is either 36 or 12 based on a selected scoring method. The GHQ can only be administered by accredited users.

3.6.4 The Sociocultural Situations Questionnaire (SSQ)

Furnham and Bochner (1982) argue that unfamiliarity with any or all aspects of a new society (physical, technological, climatic, political, legal, educational, linguistic and sociocultural) may contribute to 'culture shock' and the most fundamental difficulties experienced by cross-cultural travellers occur in social situations, episodes and transactions. This leads them to conclude that social skills and interactions have a significant impact on sojourners, immigrants and refugees to survive and thrive in the new culture. They designed the Social Situations Questionnaire (SSQ) to study international students in Britain in terms of their social skills. The SSQ is a 40-item instrument and devised to assess the amount of difficulty experienced in a variety of routine social encounters. They used this measure to investigate the cultural distance between different groups of students on social difficulty (see above). The findings support the idea that social difficulty is a function of cultural distance, i.e. students who came from culturally proximal regions experience less social difficulty.

3.6.5 The Sociocultural Adaptation Scale (SCAS)

Ward and colleagues have been strongly influenced by Furnham and Bochner's work on social difficulty and share the similar recognition that culture learning theory can contribute to the understanding of cross-cultural transition and adaptation. The Sociocultural Adaptation Scale (SCAS) was first designed by Searle and Ward in 1990 to measure the individual's ability to manage everyday life in a new culture. An internal reliability (Cronbach's alpha) of 0.81 was found when using 16 items.

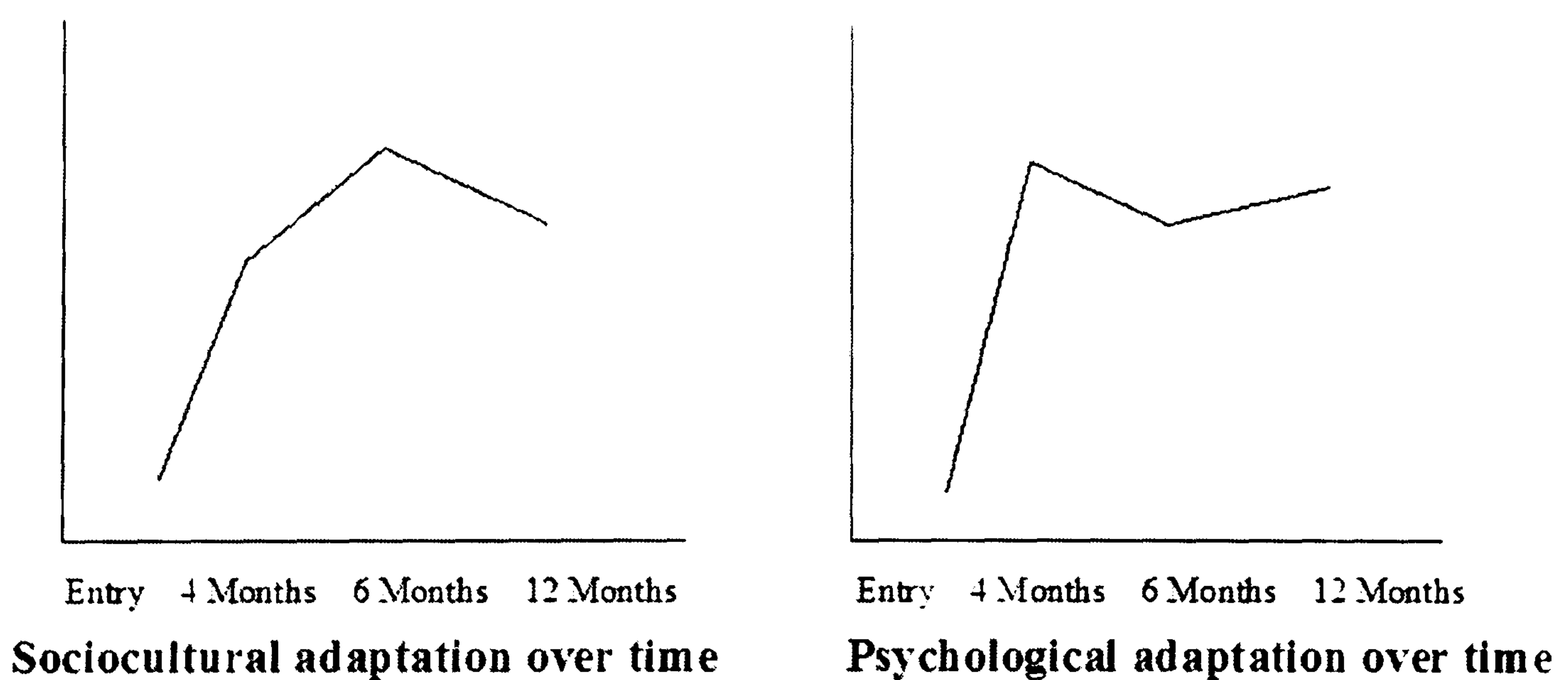
Ward and Kennedy (1999) expanded the SCAS to include 41 items to measure the skills that are required to manage everyday social situations in new cultural contexts. The authors claim that their SCAS thus covered a slightly broader perspective of adaptive skills than the SSQ such as dealing with the climate and getting used to local food. Among the 16 sojourning groups studied in their research, the reliabilities of the SCAS ranged from 0.75 to 0.91 (M=0.85). In Ward and Kennedy's (1999) research, four longitudinal experiments were conducted with the use of the Sociocultural Adaptation Scale (SCAS).

In the first experiment, Ward and Kennedy (1996a) tested Malaysian and Singaporean students within a month of arrival in New Zealand and then again after 6 and 12 month periods. The data showed that social difficulty was greatest during the first month but dropped sharply during the first 6 months and continued in a slightly downward direction 12 months later. The second data group included 14 participants in New Zealand's Volunteer Service Abroad program. They completed the SCAS before their departure to developing countries, within two months of arrival and one year into their fieldwork. The data indicated that sociocultural difficulties significantly decreased between 2 and 12 months. The third experiment was conducted in 1998 on 35 Japanese students in New Zealand. They completed the SCAS within 24 hours of arriving in New Zealand, and 4 months, 6 months, 12 months afterwards. The data showed that the greatest amount of social difficulty was experienced at entry, but that there were no significant differences across the 4, 6 and 12 months time period. In both psychological and sociocultural adaptation studies of overseas students within the first 24 hours, at 4 months, at 6 months and at 12 months (after returning home from school holidays), only the changes between

24 hours and 4 months were significant. The final data group included 108 Singaporean students studying in Australia, New Zealand, China, USA and UK. They completed the SCAS at one month prior to departure, one month after arrival and six months after arrival at their overseas destinations. The data revealed that the predeparture SCAS scores were significantly lower than the initial post-arrival SCAS scores and that social difficulty significantly decreased between one and six months overseas.

Figure 3.11

Summary of Ward and Kennedy's Data
on Sociocultural and Psychological Adaptation



Source: Ward *et al* (2001)

From the four studies, psychological adjustment difficulties appear to be greatest in the early stages of transition, and decrease in the first four to six months (see Figure 3.11). This leads to the suggestion that after the first six months of acculturation, 'non-cultural' issues, such as exams, work pressures, relationship difficulties, may

apply stronger influences on sojourners' psychological well being. It is also possible that sojourners have become more effective cultural learners during this six months' period. However these propositions remain to be explored further in future research.

3.6.6 Multicultural Personality Questionnaire (MPQ)

van der Zee and van Oudenhov (2000) developed the 78-item Multicultural Personality Questionnaire (MPQ) and conducted a study with 110 international students in a business school in Holland at two time points: at the start of the academic programme and six months later (van Oudenhov & van der Zee, 2002). Several dimensions have been included in the MPQ and tested in the study. They were cultural empathy/sensitivity, open-mindedness, emotional stability, social initiative and flexibility. After six months, the results showed that foreign students have lived long enough in the host country to have experienced problems related to living in a different culture and building up a social network (van Oudenhov & van der Zee, 2002). After six months, their "honeymoon phase" was over and the "disenchantment phase" had already started (Oberg, 1960; Ryan & Twibell, 2000).

3.6.7 Longitudinal Research Design and the Timing of Data collection

Many studies showed evidence of time-frame of acculturation at the various stages. The arrival and the six months after arrival periods were found to be the two most important intervals of adaptation. Most of the research on acculturation has chosen the first or second month of the contact period for the initial test (Bagley, 1988;

Ward & Kennedy, 1996a; Ward *et al*, 1998; Ryan & Twibell, 2000; van Oudenhover & van der Zee, 2002). The second test normally occurs 4-6 months from their initial contact (Lysgaard, 1955; Crano & Crano, 1993; Ward & Kennedy, 1996a; Ward *et al*, 1998; van Oudenhover & van der Zee, 2002). One year after the initial contact is usually the time for a third testing (Bagley, 1988; Ward & Kennedy, 1996a; Ward *et al*, 1998; Ryan & Twibell, 2000). The majority of the results from these longitudinal studies showed significant changes occurring from 4 month to 6 months (Lysgaard, 1955; Ward & Kennedy, 1996a; Ward *et al*, 1998; van Oudenhover & van der Zee, 2002) and a definite continued change between initial contact and the 12 months (Bagley, 1988; Ward & Kennedy, 1996a; Ward *et al*, 1998; Ryan & Twibell, 2000). However Lysgaard (1955) argued that students who have resided in the United States for 6-18 months were significantly less adjusted than those who have been there either less than 6 months or more than 18 months. It would therefore seem appropriate for a longitudinal study of less than 12 months durations to focus on initial contact period (1-2 months) and the position 6 months later.

3.7 Implication for This Study

Witkin (1978, p39) argued that ‘a driving force in an individual’s development is achievement of fit between cognitive styles and the demands of life situations.’ Berry (1976), Witkin (1978), and Mishra (1997) have been concerned with the important relationship between acculturation and field-dependence/independence. Inspired by the ecological impact on cognitive style, Berry (1976) conducted research in cultures where the major subsistence activity is hunting. He suggests

that the relationship between acculturation and cognitive style does indeed exist. Hunting demands certain skills for the hunter to be able to survive in certain ecological conditions. Field-independent hunters who can gather certain information and make autonomous decisions have an important advantage in their quest for prey, such as to be able to spot a vague figure of a deer living in a forest where the trees have similar colour. In addition, adults encourage children to develop these skills. As reviewed in the preceding sections, there appear to be three important experiences occurring during an individual's cross-cultural transition and adaptation: social adaptation, psychological adaptation and motivational orientation.

From the preceding literature review of the malleability of cognitive style in terms of educational context and acculturation context, two important aspects will be considered. The first is the effect of acculturation on the extent of change in cognitive style and the second is about the direction of the change. The extent and the direction of the change in cognitive style are interlinked and may be the result of the various factors affecting interaction effectiveness, psychological state and motivation orientation. The present study on cognitive style malleability among foreign students studying at a British university will investigate the potential effect of acculturative variables on cognitive style.

3.7.1 The Extent of Change

Differences in commitment to home culture and participation in the host culture could affect the changes in cognitive style. This is referred to as the motivational orientation of cultural travellers. Assimilation as the biggest change in context,

might result in the biggest change in cognitive style due to a major change in information processing requirements. Integration may have intermediate change in terms of context and accordingly lead to intermediate change in cognitive style. Separation and marginalisation will have smallest changes in context which may lead to the smallest change in information processing style. It may be difficult to assess directly individual's commitment. Thus, frequency of contact with home culture, and the extent and quality participation socially and academically in the host culture need to be taken into consideration.

The reasons for the different styles of acculturation will also be explored. There might be underlining issues which lead to particular style acquisition. Many factors need to be considered, including individuals' reasons for studying abroad, language competence and attitude of interaction. Individual's reasons for going abroad might result from a 'pull' force, indicating a greater readiness to associate with the host culture, leading to greater change in cognitive style. On the other hand, if it is just a 'push' force, the sojourners might not be self-motivated to participate and this may result in less change in the cognitive style. A proactive attitude at any stage of acculturation may lead sojourners towards integration or assimilation rather than separation and marginalisation. Language proficiency helps sojourners to express their feeling freely and actually. It not only brings confidence, but also reduces the risk of misunderstanding during the cultural experience. Better language creates a better foundation for sojourners to communicate and interact with the host culture.

3.7.2 The Direction of Change

A major theoretical principle is the similarity-attraction hypothesis (Byrne, 1969), which predicts that individuals are more likely to seek out, enjoy, understand, want to work and play with, trust, believe, vote for, and generally prefer people with whom they share significant characteristics. These include interests, values, religion, group affiliation, skills, physical attributes, age, language, and all the other aspects on which human beings differ (Bochner, 1986; Ward *et al*, 2001). Ward and colleagues (2001) argue that the sojourners might go back to something they found familiar to find comfort, interaction and information. Where motivation leads to a 'separation' strategy the individual might refer back to the familiarity of the home culture to guide their information processing. Ghuman (1975) and Bagley (1988), on the other hand, found that immigrant children change their cognitive style to match their peer group in Western countries. Bagley (1988) argues that it is a natural transition. Thus sojourners might change their cognitive style to be similar to the host culture.

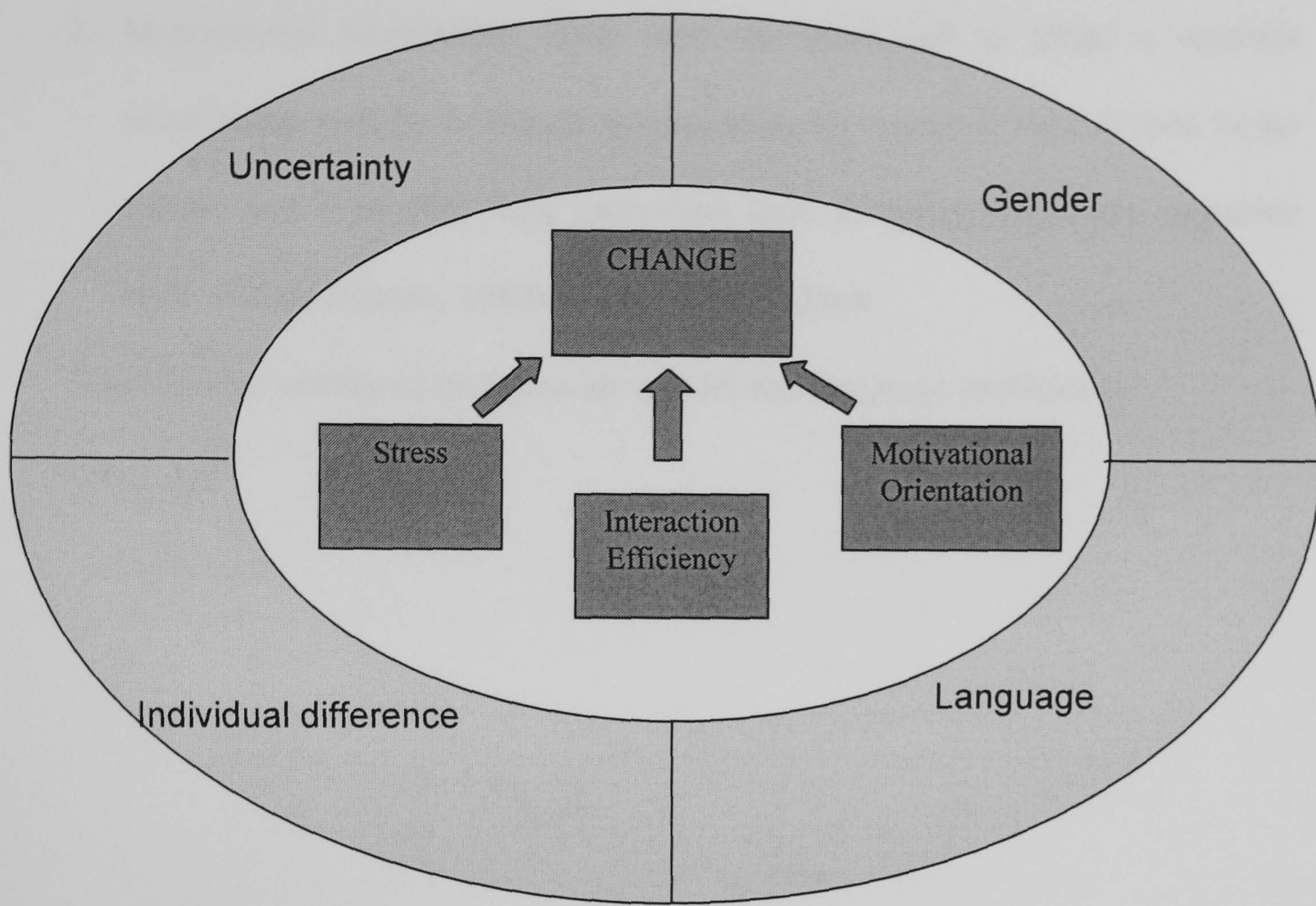
Even with full and willing interaction with the host culture, sojourners' reactions to stress can not be ignored. Some researchers have found that individuals tend to favour rational information processing when faced with arousal, surprise etc (Simonton, 1980; Black *et al*, 1991). Ward and colleagues (2001) also argue that when sojourners encounter uncertainty or stress, they might refer back to their familiar home culture where they can find not only the comfort, but also their familiar way of information processing and relating to other people.

Several factors might affect level of arousal, including gender, cultural distance, expectation, knowledge of the culture, the extent of uncertainty encountered, personality and nature of interaction with the host culture. Bearing in mind that change of information processing style could occur in a variety of ways according to the literature (Simonton, 1980; Black *et al*, 1991; Ward *et al*, 2001), the sojourner's psychological adaptation becomes an important indicator for this study.

3.7.3 Research Question Model

Based on the literature discussed above, there appears to be three important factors influencing a change in cognitive style. These are motivational orientation, interaction effectiveness and level of stress. Motivational orientation (motivation to assimilate, integrate, separate and marginalise) may be influenced by many factors, including intended duration of stay in the new culture, gender, support networks, language proficiency and so on. Motivational orientation may also affect the extent and quality of the interaction. Several factors may affect interaction effectiveness. These include language proficiency and cultural distance. Finally, many factors can influence the stress level of the sojourners. These include level of uncertainty, individual differences, language proficiency and gender. Both motivation orientation and interaction effectiveness may affect the level of stress.

Figure 3.12 Research Question Model



From the aforementioned literature and research model presented above in Figure 3.12, several factors might be associated with the extent and direction of change in cognitive style.

Extent of change in cognitive style depends upon:

1. Motivational orientation: those who are motivated to integrate or assimilate may experience a greater need to modify their information processing (cognitive) style;
2. Interaction with host culture: those who interact with the host culture may experience a greater need to modify their cognitive style.

Direction of change in cognitive style depends upon:

1. Anxiety and stress: those who express high levels of anxiety may tend towards a relatively analytical cognitive style.
2. Motivational orientation: those who are motivated to adapt a separate relationship with the host culture may retain the cognitive style of their home culture and even shift their individual style to better reflect the cognitive style climate (Kirton, 1989) of their home culture.

Other factors worthy of inclusion are gender and language proficiency.

CHAPTER 4

RESEARCH QUESTIONS

In Chapter 2, the theoretical framework used to investigate the malleability of cognitive style was explored. This chapter first summarises the evidence of the malleability of cognitive style contained in the literature. It then presents the relevant fundamental research problem and detailed hypotheses.

4.1 The Summary of the Malleability of Cognitive Style

There are differences of opinion regarding cognitive style and malleability. As indicated in chapter 2, the conventional argument is that style is a fixed trait (Witkin *et al*, 1967; Cahill & Madigan, 1984; Zelniker, 1989). There is, however, some evidence that style can be shaped by certain factors. These factors include age (Kagan *et al*, 1964; Kagan & Kogan, 1970), personality types (Kolb *et al*, 2001), educational specialization (Kolb *et al*, 2001), the professional career choice (Kolb *et al*, 2001), current job role (Kolb *et al*, 2001), given situations (Agor, 1989), adaptive competencies (Kolb *et al*, 2001) and the combination of acculturation experience and education specialization (Bagley, 1988; 1998).

This confusion in the argument and evidence thus requires further research to better understand whether or not cognitive style is malleable and whether style is affected by acculturation. In the present study, the author will replicate the work of Bagley and focus on the change of behaviours across cultures. Therefore the target population of this study will be the cross-cultural traveller. Due to the increased trend of Chinese people moving abroad during recent years, a focus on Chinese cross-cultural travellers provides a good opportunity for research in this area. An important difference between this and the Bagley study is that this study is based on mature adults rather than children who may be more open to change.

4.2 The Fundamental Research Problem

The study reported here focuses on cognitive style as an independent variable in the system of acculturative environment. The research questions which the study seeks to answer are:

1. Is cognitive style malleable or fixed in adulthood?
2. If cognitive style is malleable, what factors in the acculturative experience promote or inhibit the change?

The first question was chosen because, although the conventional argument is that cognitive style is relatively stable in individual's adulthood, there is evidence that individuals do change their cognitive style to adapt to a new environment under

some circumstances. A variety of factors are also concurrently found to be significantly, and apparently causally, related to cognitive style (see section 2.3).

The second question was chosen because it seems, on theoretical grounds, that certain aspects of the acculturation process might be a useful and important predictor of cognitive style adjustment in adulthood. Using a vivid metaphor, Hofstede (1994) argues that a sojourner crossing cultures is analogous to a new-born baby. If cognitive style is conventionally believed to be stable in adulthood under normal circumstances, entering into a new culture is then a very special experience for an adult. It is suspected that this cross-cultural experience, rather than just training and socialisation, leads to high possibilities of adaptation in adulthood. The obvious focus is acculturation: it is a factor which can be theoretically expected to relate to cognitive style, at least in certain circumstances; and it is the conceptualisation of the individual's response to the new culture which seems to appeal most to other researchers in the field and indeed to multinational organisations. Whilst previous research has demonstrated some casual relationship between culture and cognitive style (see section 2.3.3), the detailed factors and the process of this influence have not been fully investigated and the preferred longitudinal research methods have rarely been used.

The purpose of the present study is two-fold. First, it is intended to extend the theoretical understanding of the cognitive style construct; it is hoped to explain further the interaction between the individual and certain aspects of the organizational setting in which he or she functions. Second, it is intended to provide

insights into human behaviour in cross-cultural assignment or multi-cultural organizations which would be of practical interest to managers, trainers and counsellors. It is anticipated that an improved understanding of the relationship between cognitive style and acculturation will have important implications for expatriate selection, cross-cultural training and counselling. This could ultimately benefit organisations by achieving maximum efficiency through its cost-saving and time-saving.

In summary, a primary aim of this study is to investigate whether cognitive style is malleable. The following propositions are therefore formulated:

PROPOSITION 1

THERE WILL BE SIGNIFICANT DIFFERENCES IN COGNITIVE STYLES OF CROSS-CULTURAL TRAVELLERS WHEN CROSSING FROM ONE CULTURE (COUNTRY) TO ANOTHER BETWEEN TIME 1 (TIME OF CROSSING) AND TIME 2 (SOME PERIOD AFTER ENTRY INTO THE FOREIGN CULTURE).

PROPOSITION 2

THERE WILL BE NO SIGNIFICANT CHANGES IN COGNITIVE STYLES OF MEMBERS OF THE INDIGENOUS CULTURE OVER THE SAME PERIOD OF TIME.

A more detailed list of hypotheses will be presented and elaborated upon in Chapter 5.

4.3 Conclusion

Obviously, in broad terms, the two research questions are concerned with the prediction of the malleability of cognitive style and acculturation respectively. It is therefore convenient to explain the selection of research variables in each area separately. Operational definitions of each of the variables contained in the hypotheses and research questions are presented in section 5.4.1. This chapter presents the rationale of the hypotheses and research questions in different phases of the present study. Following chapters will further the justification of research design, sampling and research instruments to measure the variables for each phase of the present study.

CHAPTER 5

METHODOLOGY, RESEARCH DESIGN, SAMPLE, MEASUREMENT, DATA COLLECTION AND ANALYSIS (I)

Based on the theoretical framework reviewed in Chapters 2 and 3, and propositions and research questions developed in Chapter 4, this chapter engages with various aspects of methodology relevant to this research. It introduces different methodological philosophies and justifies the use of mixed methods in the present research. The chapter proceeds to identify and provide a rationale for the research methods applied and then moves on to discuss the detailed implementation of the surveys of the project. This includes the identification of the target sample, the adoption of the research instrument and the strategy and procedures of data collection. Finally, the process of data analysis is specified and discussed.

5.1 Research Methodology

The two main philosophical stances used in academic research are the nomothetic or deductive approach and the ideographic or inductive approach. In relation to these two stances, there are a number of different research strategies, as shown in the Table 5.1 (Gill & Johnson, 1994). It is clear that nomothetic and ideographic approaches involve quite different research methods, data handling and gathering techniques and perspectives on the world in general.

Due to its strong legacy from the natural sciences, the nomothetic approach emphasises highly structured research methods with reproducible results. Standards, be they in relation to theories or research instruments, are *de rigueur*. The nomothetic approach implies deduction, which requires the researcher to observe his or her surroundings, and to test hypotheses which would confine the real world in theories, laws and such things which can be reproduced. Experiments and quantitative surveys are always linked to the deductive approach. In contrast, the ideographic approach emphasises the subjective aspects of human activity by focusing on the meaning, rather than measurement, of social phenomena. Since social reality is within us, ideographic methods require researchers to immerse themselves in the context and to experience for himself or herself the very thing under study. This contrasts with the remote observer in nomothetic methods. Ethnographic methods and case study research are most usually associated with the inductive approach.

Table 5.1 A Comparison of Nomothetic and Ideographic Methods

Nomothetic methods			Ideographic methods	
1	Deduction	vs	Induction	
		.		
2	Explanation via analysis of causal relationships and explanation by covering-laws (etic)	vs	Explanation of subjective meaning systems and explanation by understanding (emic)	
		.		
3	Generation and use of quantitative data	vs	Generation and use of qualitative data	
		.		
4	Use of various controls, physical or statistical, so as to allow the testing of hypotheses	vs	Commitment to research in everyday settings, to allow access to, and minimise reactivity among the subjects of research	
		.		
5	Highly structured research methodology to ensure replicability of 1, 2, 3 and 4	vs	Minimum structure to ensure 2, 3 and 4 (and as a result of 1)	
		.		

Source: Gill and Johnson (1994, p37).

The present study has two phases. One is to test the malleability of cognitive style; and the second is to investigate the relationship between some acculturation factors and cognitive style, and explore how they promote and inhibit the change. In phase I, the process of deduction has been adopted as a framework for the study because the nature of the investigation engages with identifying the relationships between variables and testing the strength of those relationships. Sekaran (1992) reports that the deductive process involves seven steps of hypothetic-deductive logic: observation, preliminary data gathering, theory formation, hypothesising, data collection, data analysis and deduction. In phase II, the process of induction has been deployed as a framework due to its emic nature of understanding and making sense of the subjective social milieu.

5.2 Research Design

5.2.1 Research Design for Phase I

Creswell (2003) identifies ten strategies of inquiry corresponding to quantitative, qualitative and mixed research methods: experiments and surveys are associated with the quantitative approach; ethnographies, grounded theory, case studies, phenomenological research and narrative research are associated with the qualitative approach; and sequential procedures, concurrent procedures and transformative procedures are associated with mixed methods. Gill and Johnson (1997) also place laboratory experiments, quasi-experiments, surveys, action research, and ethnography respectively as research strategies on a continuum with deductive and inductive as two extremes. Surveys and experimental research design are positioned toward the deductive end of the continuum.

As discussed in section 5.1, the first phase of the present study followed a deductive logic. The research design adopted was a longitudinal, quasi-experimental, sample survey design.

There are two types of sample survey: longitudinal and cross-sectional. Research phenomena in survey designs can be studied by observing variables at several points in time in order to measure changes that may occur (Pettigrew, 1985; Remenyi *et al.*, 1998). This type of study is described as 'longitudinal.' A cross-sectional survey involves the observation of research variables at a particular point in time and

changes in the independent variables are measured by analysing a range of values of those variable.

Longitudinal designs have been advocated by other researchers with an interest in bringing about change (e.g. Miller & Friesen, 1982; Galliers, 1985; cited in Gill & Johnson, 1997). Vitalari (1985, cited in Gill & Johnson, 1997) believes that longitudinal designs permit the exploration of phenomena which develop over time such as learning and adaptation. On the other hand, cross-sectional research examines how something is done at the time of the research study rather than attempt to comment on trends or on how situations develop over time (Remenyi *et al*, 1998).

The present research focuses on whether individuals' cognitive styles change over time. The ideal strategy will therefore be the longitudinal design which offers many advantages. It economises on subjects who serve as their own control. The between-subject variation will be excluded from error. It can provide more efficient estimators than cross-sectional designs with the same number and pattern of observations. It can separate aging effects (changes over time within individuals) from cohort effects (differences between subjects at baseline). Additionally, it can provide information about individual change with the observation of medium- to long-term trends (Remenyi *et al*, 1998).

There are however also disadvantages of longitudinal studies. One of the main drawbacks for this paradigm to be used extensively in business and management research is the fact that it is relatively time-consuming and expensive (Remenyi *et al*,

1998). Observations are not, by definition, independent so it must account for dependency in data. Analytic methods are not well developed especially for more sophisticated techniques. There are also difficulties of dealing with unbalanced designs, missing data and attrition. The time-varying covariates and carry-over effects such as when the repeated factor is a condition or treatment rather than time need to be borne in mind.

In order to measure the carry-over effects of the research instrument on the sample, a quasi-experimental design was chosen. The main difference between experimental and quasi-experimental designs is the control over the scheduling of experimental stimuli (the 'when' and to 'whom' of exposure and the ability to randomize exposures) (Campbell & Stanley, 1963). The former has full control while the latter is to analyse causal relationships between independent and dependent variables in natural real-life events with less control. Both the control and experimental group in this latter type of research are the people who have naturally either experienced or not experienced the notional experimental treatment and can be identified by researchers (Gill & Johnson, 1997).

It was felt that it would be impossible to simulate the desired conditions for a laboratory setting, and impractical to manipulate variables in a more natural field setting. An analytic sample survey research with a quasi-experimental design was therefore chosen as the method of deductive inquiry that uses statistical control of variables in place of the physical controls of the laboratory. A quasi-experimental approach is often adopted for several reasons: the avoidance of the artificiality of the context, the possibility of research being conducted in actual settings, and the

possibility of investigating causal relationships in situations with a lack of manipulation over the control and experimental groups (Gill & Johnson, 1997).

5.2.2 Research Design for Phase II

It is argued that there is no one best research method and each method has its strengths and weakness. Different styles of research are not concretely different types of study, but analytically different aspects of a common mode of inquiry, social research. Triangulation is widely recognised as a means of reducing bias and increasing certainty. It serves as a check on the validity and reliability of data. Denzin (1970, p297) defines triangulation as ‘the combination of methodologies in the study of the same phenomenon.’ Remenyi *et al* (1998) provide a narrow definition of triangulation as involving an attempt to corroborate findings via the use of multiple sources of evidence. More broadly, Jones (1986) notes that triangulation involves the researcher in operationalising concepts in different ways and using several different methods in the search for evidence. Denzin (1978) identifies four approaches to triangulation: data triangulation, investigator triangulation, theoretical triangulation and methodological triangulation. The last one is divided into within-method triangulation and between-method triangulation. In adopting between-method triangulation, it is recognised that no single method is infallible and that a multi-method approach is therefore desirable. Methodological triangulation enables the researcher to neutralise the method effect and thus lead to greater confidence being placed in the conclusions reached.

Creswell (2003) extends the discussion of mixed methods and introduces six strategies of triangulation. They are sequential explanatory strategy, sequential exploratory strategy, sequential transformative strategy, concurrent triangulation strategy, concurrent nested strategy and concurrent transformative strategy. He defines sequential explanatory strategy as the collection and analysis of quantitative data followed by the collection and analysis of qualitative data. He explains that the purpose of the sequential explanatory design is to use qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study. Rather than fully based on a specific theoretical perspective, this strategy is especially useful when unexpected results arise from a quantitative study (Morse, 1991).

In order to address the second research question which is concerned with changes or non changes, the second phase of the present study used mixed methods. One was a cross sectional sample survey to test causal relationships between potential dependent and independent variables. Another was a sequential explanatory strategy deployed to make sense of the survey data.

5.2.3 The Design of The Present Study

In Bagley's (1988) Jamaican study discussed in Chapter 2, a longitudinal study design was used to follow both the Jamaican migrant and non-migrant children for two years. Thirty-four migrant Jamaican children (experimental group) were tested by the CEFT (Witkin *et al*, 1971) within four weeks of their arrival in Toronto and similarly tested one year and two years respectively after migration. The 34 non-migrant children (control group) were age-, sex-, location- and social-status-matched

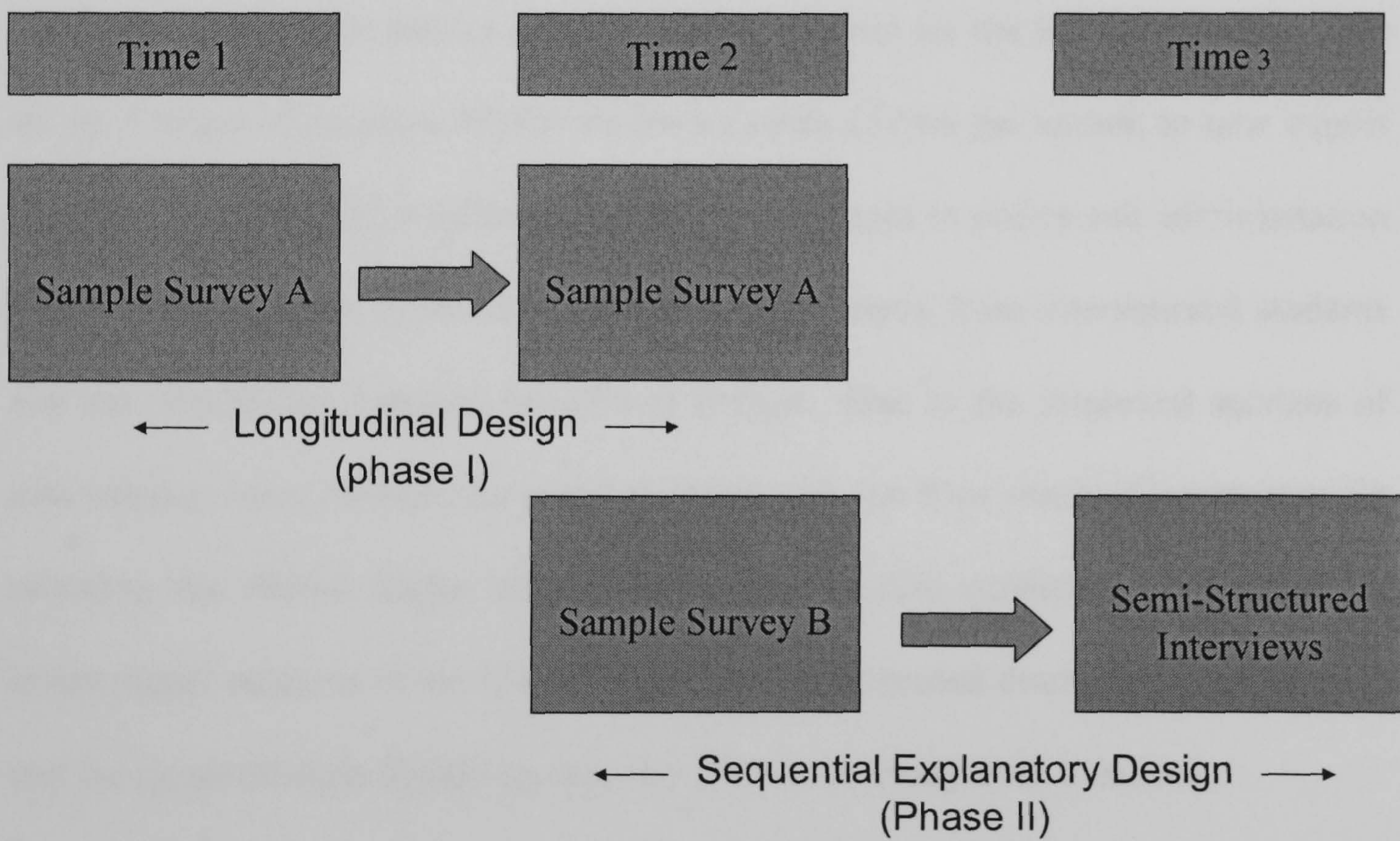
with the migrant children. Both groups were compared with a sample of 40 Italian children who had been born in Toronto and who were similarly tested. The results showed that the Jamaican migrant children had, after two years living in Canadian society, achieved levels of perceptual disembedding skills that were close to those of their Canadian peers while non-migrant Jamaican children had remained relatively field-dependent.

The present study has two phases. To replicate Bagley's (1988) Jamaican study, the first phase involves a longitudinal design. The longitudinal sample survey was to measure the adaptation and changes over time under special acculturation treatment. The experimental group was the cross-cultural travellers who were followed for a certain length of time. They were compared with the indigenous people who were similarly tested for the same period. A difference between Bagley's study and this research is that a larger scale sample survey was used in the present study to generate more reliable and replicable data. The quasi-experiment was also deployed to test the carry-over effect of the research instrument in the longitudinal study design. Bagley used church contacts to identify the non-migrant Jamaican children as the control group, but the present study was unfortunately unable to identify the similar controls due to the cultural diversity of the experimental group.

Apart from testing the malleability of cognitive style, another interest of this study was to find out the explanations for why and how the changes or non changes occur. The second phase of the study used mixed methods to attempt to explain the findings in the phase I study. A cross-sectional sample survey was conducted to examine some potential causal relationship of the variables. A sequential

explanatory strategy was chosen as an additional method of deductive inquiry. Semi-structure interviews were conducted to explore further the results emerging from the quantitative data of the present study. Figure 5.1 summarises the detailed research design discussed in this section.

Figure 5.1 Research Design for the Present Study



5.2.4 Identification of Populations to be Included in the Study

Many studies of international students and expatriates have been the result of recent social changes in the world. Burrell and Kim (1997) suggest that international students will bring many benefits to the United States including promotion of political allies (Rao, 1979), campus diversity, sustainability of nonviable graduate programmes and financial gain (Woolston, 1995). On 18th June 1999, the British Prime Minister launched a drive to attract more international students and considered this export service as an important income for the British economy. He set up a target of an extra 50,000 students (worth £500m per annum in new export earnings) by 2005, and a follow-up package of changes in policy and administration has been put in place to avoid any delay in applications from international students and the consequent financial benefits to Britain. Due to the improved services of visa issuing, more freedom for part-time work and the £5m worth of investment for branding the British higher education in main market countries, the number of international students in the United Kingdom has increased dramatically since then, and the target of extra 50,000 students by 2005 has already been achieved.

As discussed in section 3.3.2.2, Furnham (2004) showed that Britain has about 17 per cent of the world's total overseas student population and there has been a 271 per cent increase in the numbers of international students from the 1970s to the early 1990s (from 35,000 in 1973 to 95,000 in 1992). By 2001/2002, there were a total of 225,090 international students in higher education in Britain, including 88,800 students from the EU and 136,290 'other' overseas students. This had risen to about 6 per cent of a total income of the universities of £13.5 billion in 2001 (Furnham,

2004). According to the latest estimates from the BBC (3rd April, 2004), there are about 175,000 non-EU fee-paying overseas students who are worth about £1 billion in fee income to universities and contribute about £8 billion to the UK economy (www.news.bbc.co.uk). Within this total, students from China have been reported to be the biggest contributors for this growth with around 40,000 studying in British universities. This increasing importance of China in terms of its political and social status has attracted attention from government, organisations and universities for further research in this area.

China is an immense country with a varied climate and landscape. Fifty-six nationalities share this enormous land, each with its own distinct culture. China, as a whole, has maintained a high standard of physical and cultural isolation from the rest of the world throughout most of its past. Its civilisation is not the oldest, but the most continuous. Historical records and archaeological evidence reveal a civilisation well advanced some 1500 years before Christ. In terms of contribution to the world, China has been responsible for four important inventions in science: gunpowder, the compass, papermaking and printing, each of which still has a great impact on our daily life. China is also the birthplace of bureaucracy, i.e. the official system with hierarchical government settings, imperial court and provincial deputy administrators. Philosophers abounded, the most famous probably being Confucius (c551 BC). This rich cultural past has guaranteed that Chinese people have a distinctive way of thinking and special way of perceiving things.

Nakamura (1964) believes that typical Chinese thinking emphasises the perception of the concrete, non-development of abstract thought, emphasis on the particular

rather than universals, practicality as a central focus and concern for reconciliation, harmony and balance. Hus (1970) argues that the Chinese way of life is more situation-centred while the American way of life tends to be more self-reliance centred. Redding and Wong (1986) explain how culture can enhance economic development by employing the example of rapid development in Asia-pacific region, and the strong influence of Confucian ideology on Chinese industry, for example business organizations tend to be small in size, family dominated, and paternalistic.

There are four strong traditions playing important roles in the Chinese culture and thinking, namely Yi Jing (or Book of Change), Buddhism, Taoism and Confucianism. All of these were aimed at satisfying the physical and material demands of the Chinese society. They all propose the practical, and even superstitious ways, of avoiding disasters and encouraging good fortune. They have influenced people's way of living and remain at the root of Chinese culture to the present today.

Confucianism is the main philosophy that has affected the modern Chinese way of thinking and psychology for more than two thousand years. Kongzi (or Confucius) was a famous intellectual in China around 551 BC. In his later life, he attracted a large group of followers who recorded his teachings about wit and wisdom. Confucianism is not a religion, but a set of pragmatic rules for daily life, which he generalized from studying Chinese history. Hofstede (1994) identified the four cultural dimensions of individualism versus collectivism, uncertainty avoidance, masculinity, and power distance on the basis of studies conducted in more than 40 countries. A fifth dimension, labelled Confucian dynamism was added to reflect the

Confucian qualities such as hard work ethic, thrift and concept of time (Hofstede & Bond, 1988).

According to Hofstede (1994, p165), the key principles of Confucianism are as follows:

1. The stability of society is based on unequal relationships between people. The Wu Lun, or five basic relationships, are complementary and mutual obligations. These refer to the relationship between ruler and subject, father and son, older brother and younger brother, husband and wife, and senior friend and junior friend. The senior owes the junior protection and consideration while the junior owes the senior respect, compliance and obedience.
2. The family is the prototype of all social organizations. The union of families sets up the society. A person is not primarily an individual; rather, he or she is a member of a family, so 'personal' is not the same as 'important.' Thus family harmony is more important. On the other hand, an individual's dignity can sometimes be more important if it ensures the family's harmony. In the Chinese tradition, to lose one's dignity is as bad as losing one's eyes, nose and mouth. Thus social relations should be conducted in a way that everybody's dignity is preserved.
3. Virtuous behaviour towards others consists of not treating others as one would not like to be treated oneself (the Chinese Golden Rule is negatively phrased.) It is a basic human benevolence towards others, such as to love one's enemies.

4. Virtue with regard to one's tasks in life consists of trying to acquire skills and education, working hard, being frugal, being patient, and persevering. On the other hand, overspending and losing one's temper is taboo. Moderation is required in all things.

For Hofstede (1994), long term orientations for Confucian values are persistence, ordering relationships by status and observing this order, frugality and having a sense of shame; while short term orientations are personal steadiness and stability, protecting your dignity, respect for tradition and reciprocation of greetings, favours and gifts.

There has not been much work conducted on Chinese people by Chinese researchers for historical and political reasons (Bond, 1996). The increasing number of Chinese cultural travellers, however, provides an excellent opportunity to conduct cross-cultural comparisons between Chinese people and those from other countries. Given the location of the author, it was decided that the present study would focus on Chinese who travel to Britain. Researchers have reached a consensus that cross-cultural studies in cognitive style require fully matched samples across countries with respect to gender, age, and other salient demographic characteristics, such as job level (Savvas *et al*, 2001; Hodgkinson & Sadler-Smith, 2003). For this reason, the author decided to focus on Chinese postgraduate students who are similar in terms of age and background.

The discussion of samples is considered in more detail in section 5.3.2.

5.2.5 Sub-hypotheses for Sample Survey A

As the first research question was concerned with the malleability of cognitive style, it was necessary to compare its contribution with that of established predictors. It will be recalled that previous studies have examined a number of variables in relation to the malleability of cognitive style. It has been suggested that individuals will adapt their cognitive style in the short-term or long-term in response to the influence of certain environmental factors. According to the evidence presented in section 2.3, the types of environmental press which had previously been shown to have some relationship with a change in cognitive style could be broadly classified as: the learning environment, the working environment and the acculturative environment. To be specific, education and training are found to strengthen a certain style of information processing; the job position in the working environment might shape a certain way of thinking and decision making; and the acculturative experience in the wider cultural environment might not only disturb an individual's original cognitive style, but also change it in a direction towards the style of their counterparts in a new culture. If cognitive style is malleable, therefore, it might be affected by:

training;

job position;

acculturative experience.

According to the evidence presented in section 2.3, the variables which had previously been shown to have some relationship with cognitive style could be

broadly classified as job position, occupation, nationality and sex. It was not possible, for practical reasons, to examine all of these variables in the present study. First, it is unrealistic to expect that volunteer subjects will be prepared to sacrifice the time in a longitudinal study involved in an experimental training environment. Second, it is difficult to implement a sampling procedure that both differentiates subjects across a range of occupations and job positions, and confines the number of membership individuals so that structural variables can be satisfactorily measured. For these reasons, training, job position and occupation were not examined as predictors.

The variables which were analysed in this first part of the study were, therefore, as follows:

DEPENDENT VARIABLE:	Cognitive style at Time 1
	Cognitive style at Time 2
	Difference between cognitive style at Time 1 & Time 2
INDEPENDENT VARIABLES:	Sex
	Nationality
	Acculturative experience

The aim of first phase of this present research is to examine whether or not cognitive style is malleable in adulthood. Based on the discussion earlier in 4.2, the principal research hypotheses of the present study are discussed and presented below.

For the purpose of this research, it is important to establish at the outset that there is a difference in the cognitive style of Chinese and British postgraduate students. Based on previous research of cultural differences in cognitive style, it is hypothesised that:

HYPOTHESIS 1

THERE WILL BE A DIFFERENCE BETWEEN THE COGNITIVE STYLES OF CHINESE AND BRITISH SUBJECTS.

This study aims to investigate the effect of a new culture on the stability or malleability of the cultural traveller's cognitive style during their postgraduate study in Britain. It is therefore hypothesised that:

HYPOTHESIS 2

THERE WILL BE SIGNIFICANT DIFFERENCES IN THE COGNITIVE STYLES OF MEMBERS OF THE CHINESE SAMPLE BETWEEN TIME 1 AND TIME 2.

It is anticipated that over the same period, the cognitive style of postgraduate students who have conducted their studies in their home culture will evidence no change. It is therefore hypothesised that:

HYPOTHESIS 3

THERE WILL BE NO SIGNIFICANT DIFFERENCES IN THE COGNITIVE STYLES OF MEMBERS OF THE BRITISH SAMPLE BETWEEN TIME 1 AND TIME 2.

The experimental groups A1/A2 and C1/C2 (see Table 5.2) were established to examine the malleability of cognitive style within different nationalities. Control group B was established to examine the effect of pre-exposure to the CSI. After one year of exposure to a new culture, the cognitive style of the Chinese sample is expected to change (between A1 & A2). The influence of the research instrument can be predicted by comparing the results between A2 and B. Group A2 has been tested by the research instrument at Time 1, while group B has not seen it before. Therefore, hypothetically, there should be no significant difference between these two groups. If there is a difference this would indicate a carry-over effect, namely that people who have been exposed to the research instrument before will be affected by it. It is therefore hypothesised that:

HYPOTHESIS 4

THERE WILL BE NO SIGNIFICANT DIFFERENCES BETWEEN THE CHINESE EXPERIMENTAL GROUP AT TIME 2 AND THE CHINESE CONTROL GROUP.

The research design to test these four hypotheses is summarised in table 5.2. It is hypothesised that there will be (1) a significant difference between A1 (the cognitive style of Chinese students) and C1 (the cognitive style of British students) at Time 1, (2) a significant difference between A1 (the cognitive style of Chinese students at Time 1) and A2 (the cognitive style of Chinese students at Time 2); and (3) there will be no difference between C1 (the cognitive style of British students at Time 1) and C2 (the cognitive style of British students at Time 2).

Table 5.2 Hypothesis Table for Phase I Research

Nationality	Chinese		British
Groups	Experimental Group	Control Group	Experimental Group
Time1	A1		C1
Time2	A2	B	C2

5.2.6 Sub-hypotheses for Sample Survey B

As the second research question of the present study was concerned with how acculturative experience promotes or inhibits the change in cognitive style, it was necessary to compare its contribution with that of other established predictors.

Investigators have long sought to determine the major influences on acculturation. It will be recalled that previous studies have examined a number of variables in relation acculturative experience. According to the evidence presented in section 3.5, the variables could be classified as stress, motivational-orientation, extent and quality of interaction with host culture, uncertainty affected by pre-departure cultural/language training, accurate anticipatory expectation, past western experience, language proficiency, personality and sex.

It is not possible, however, for practical reasons, to examine all possible predictors of adaptation in the present study. First, it is unrealistic to expect that volunteer subjects will be prepared to sacrifice the time involved in the measurement of personality variables as well as variables such as stress, motivational orientation and

There is evidence presented in section 3.5 showing that interaction effectiveness and motivational orientation are related to the extent to which cultural travellers expose themselves and are influenced by the host culture. People who have extensive and effective interaction with members of the host culture, and whose motivational orientation includes a willingness to adapt are likely to expose themselves more extensively to the host culture. This relatively high level of exposure may confront them with information processing requirements that are different from their normal information processing requirements. This may lead to the change of a person's cognitive style. It is therefore hypothesised that:

HYPOTHESIS 5

THERE IS A POSITIVE CORRELATION BETWEEN THE WILLINGNESS TO ADAPT TO A NEW CULTURE AND THE EXTENT OF CHANGE IN COGNITIVE STYLE.

HYPOTHESIS 6

THERE IS A POSITIVE CORRELATION BETWEEN INTERACTION (EXTENT AND EFFECTIVENESS) AND THE DEGREE OF CHANGE IN COGNITIVE STYLE.

It could be argued that in order to be more assimilated into a new culture, certain ways of information processing are required. Evidence in section 3.5 and discussion in 3.7 show that the sojourners will change their cognitive style to be similar to that of the host culture.

Evidence was shown in section 3.5 that people tend to choose a rational cognitive style when facing arousal, surprise and stress etc. Researchers have also shown that sojourners refer back to their familiar home culture when they encounter uncertainty and stress. In the case of Chinese sojourners visiting Britain (who come from a cultural with a more analytical cognitive style), if they experience high stress and uncertainty, they may choose to be relatively analytical. Level of stress can be affected by past western experience, pre-departure language/culture training and accuracy of expectations. It is therefore hypothesised that:

HYPOTHESIS 7

THERE IS A CORRELATION BETWEEN LEVEL OF STRESS AND COGNITIVE STYLE.

5.2.7 Semi-structured Interviews at Time 3

The semi-structured interviews were designed to explore issues arising from the surveys (Sample Survey A and Sample Survey B). Details relating to the sampling procedures and data collection strategy are discussed in Chapter 8.

5.3 Population and Sampling

5.3.1 Population

After the hypotheses and research design have been decided, it is necessary to identify a research population that will provide all the information necessary for tackling the original research problems. The hypotheses for the present study are concerned with the malleability of cognitive style within an acculturative environment. The units of analysis are therefore at the individual level (expatriates) and the changes of cognitive style over time. An ideal target population for this kind of study would be expatriates in work organisations who travel between countries for international assignments. However, due to the limited access to this population and lack of control of independent variables such as past western experience and pre-departure training etc, students who travel between countries were finally selected as a more realistic and practical choice for this longitudinal design.

During the academic year 2002-2003, a standard letter of introduction (see Appendix 12.4), slightly modified where appropriate, was sent to the senior executive of Leeds University Business School. With their permission and the cooperation of the staff, a sufficient number of Chinese students was recruited to make the study viable. Subjects were from the People's Republic of China studying a Taught Master's degree course in the Leeds University Business School for the academic year 2002-2003. Since data were collected in the lectures, to create a more controllable research environment, it also involved students from other

countries who were present. Data from other nationals however was not used in this study.

Phase II of the research considered the effect of the acculturation process on cognitive style at the start of the acculturation (Time 1) and 6 months later (Time 2). The investigation comprised two parts: a sample survey and in-depth semi-structured interviews with specially selected candidates. Based on the literature and hypotheses, the survey was designed to collect data about demographics, past experience in Britain, pre-departure training, accommodation choice, interaction with host culture, difficulty experienced and stress level. The findings from the survey in the longitudinal design provided an interesting but complex view of the changes of cognitive style occurring among the Chinese students over the initial six month period of study in England. However, the mixed results could not explain the changes fully. A series of interviews were conducted on selected respondents to provide an insight into the psychological changes occurring, and hence complement the quantitative results from the analytic survey.

Based on the survey results, 19 candidates were specially recruited for the interviews (see Chapter 9) to supply further details, and the interview questions were outlined according to the following themes: pre-departure information, and various experiences in Britain including education, socialising, accommodation choice, etc. At the end of the interview respondents were asked to assess how their experience of living and studying in Britain had influenced the way they think.

5.3.2 Sampling

There are two types of sampling technique, namely non-probability sampling and probability sampling. The former are the domain of the phenomenologist while the latter are used by the positivistic researcher. Non probability samples include convenience samples, judgement samples and snowball samples. Convenience samples comprise individuals or organisations that are most readily available to participate in the study. Judgement samples refer to samples where individuals are selected with a specific purpose in mind, such as the likelihood of representing best practice in a particular issue. Snowball samples are samples where the researcher uses an informant to help him or her to find the next informant.

Probability samples implicate that each individual could have the probability to be selected for the research and these include simple random sampling, systematic sampling, stratified sampling and cluster sampling. Simple random sampling offers each member of the population an equal chance of being selected. A systematic sample is selected from the sampling frame of size N. In stratified sampling the population is subdivided into homogeneous groups, called strata, before the random sampling. The population in cluster sampling is made up of groups/ clusters where the clusters are naturally formed groups such as companies. Finally, multi-stage sampling is an extension of cluster sampling involving different stage of sampling techniques at each time.

The ideal sampling for this present study could potentially have involved the collection of data from different disciplines in up to 100 institutions in the United

Kingdom randomly, in order to represent the entire education population. Such an investigation obviously would have been practically impossible to administer within the limits of time, cost and manpower. A sampling procedure was therefore adopted using a subset which shared the characteristic of the population. The main challenge confronted by the author was that the nature of longitudinal research design requires several data collections over time. Gaining access to large scale data as well as to administering a longitudinal design, results in problems of intrusion and administrative costs which lead to difficulty in distributing and collect the survey questionnaires in a truly random manner from a list of all British Universities or departments. Fortunately Leeds University Business School is one of the largest business schools in the United Kingdom attracting an adequate amount of international and home students on their postgraduate programme every year for the purposes of the present study. Convenience sampling was, therefore, adopted for the basis of the present study. All the data were collected in the lecture and categorized later on by the author.

Factors determining the requisite sample size include type of sample, variability in the population, time, costs, accuracy of estimates required, and confidence with which generalisations to the population are made (Remenyi *et al*, 1998). Roscoe (1975, cited by Sekaran 1992, p253) propose four rules for determining sample size:

1. Sample sizes larger than 30 and less than 500 are appropriate for most research.
2. When samples are to be broken into subsamples (males/females, juniors/seniors etc.), a minimum sample size of 30 for each category is necessary.

3. In multivariate research (including multiple regression analyses), the sample size should be several times (preferably 10 times or more) as large as the number of variables in the study.
4. For simple experimental research with tight experimental controls (matched pairs etc.), successful research is possible with samples as small as 10 to 20 in size.

With this in mind, the author decided to seek to obtain data from samples of at least 100 subjects in the longitudinal design.

5.3.3 Study Site

The main study took place within the University of Leeds in the North of England. The University caters for approximately 30,000 students, both full time and part time, including 3,000 international students and 4,000 postgraduate students. The study took place specifically in the Leeds University Business School and involved students from the Taught Masters programme on a range of courses in year 2002-2003. These courses comprise the MA Accounting and Finance, MA Advertising and Marketing, MSc Banking and Financing, MA Economics, MA Economics and Finance, MA Human Resource Management, MSc International Finance, MSc International Marketing Management, MSc Management and MBA Master of Business Administration programmes.

5.4 Measurement

5.4.1 Operational Definitions and Measurement of Variables

In order to give meaning to the concepts and constructs of interest in the present study, it is essential to provide specific definitions of variables in operational terms so that observable and measurable responses can be obtained. Stevens (1951) proposed four scales of measurement: nominal, ordinal, interval and ratio. The 'nominal' level of measurement describes variables that are categorical in nature. Nominal variables include demographic characteristics like sex, race and religion. The 'ordinal' level of measurement describes variables that can be ordered or ranked in some order of importance. It describes most judgements about things, such as big or little, strong or weak. Most opinion and attitude scales or indexes in the Social Sciences are ordinal in nature. The 'interval' level of measurement describes variables that have equal intervals, or meaningful distance between their ranks. The ratio level of measurement describes variables that have equal intervals and a fixed zero point. Ratio level variables are rarely seen in Social Science since it is almost impossible to have a zero attitude on any matter. Operation definitions and scales of measurement for each of the variables in the study can be found as follows.

SEX

OPERATIONAL DEFINITION: the sex of a person is defined as his or her response to the Questionnaire item 'SEX.'

LEVEL OF MEASUREMENT: Nominal

NATIONALITY

OPERATIONAL DEFINITION: the nationality of a person is defined as his or her response to the Questionnaire item 'nationality.'

LEVEL OF MEASUREMENT: Nominal

COGNITIVE STYLE

OPERATIONAL DEFINITION: the cognitive style of a person is defined as his or her score on Allinson and Hayes' (1996) Cognitive Style Index (see justification below).

LEVEL OF MEASUREMENT: Ordinal

MALLEABILITY OF COGNITIVE STYLE

OPERATIONAL DEFINITION: Malleability of cognitive style is defined as the degree to which a person's cognitive style changes over time.

LEVEL OF MEASUREMENT: Ordinal

STRESS

OPERATIONAL DEFINITION: stress of a person is defined as his or her score on Zung's (1965) Self-rating Depression Scale (See justification below).

LEVEL OF MEASUREMENT: Ordinal

EXTENT OF INTERACTION

OPERATIONAL DEFINITION: extent of interaction is defined as a person's response to the questionnaire item 'the extent of socialisation with host nationals.'

LEVEL OF MEASUREMENT: Ordinal

INTERACTION EFFECTIVENESS

OPERATIONAL DEFINITION: Interaction effectiveness of a person is defined as his or her score on Ward and Kennedy's (1999) Sociocultural Adaptation Scale (see justification below).

LEVEL OF MEASUREMENT: Ordinal

PRE-DEPARTURE TRAINING

OPERATIONAL DEFINITION: Pre-departure training is defined as his or her response to the background information section item 'pre-departure training.'

LEVEL OF MEASUREMENT: Nominal

PAST WESTERN EXPERIENCE

OPERATIONAL DEFINITION: Past western experience is defined as a person's response to the questionnaire item 'past Western experience.'

LEVEL OF MEASUREMENT: Nominal

CHOICE OF ACCOMMODATION

OPERATIONAL DEFINITION: Choice of accommodation is defined as a person's response to the questionnaire item 'choice of accommodation.'

LEVEL OF MEASUREMENT: Nominal

CHOICE OF SOCIALISATION

OPERATIONAL DEFINITION: Choice of socialisation is defined as a person's response to the questionnaire item 'choice of socialisation.'

LEVEL OF MEASUREMENT: Nominal

5.4.2 Measurement of Cognitive Style

As discussed in section 2.2.2, many researchers (Zeleny, 1975; Agor, 1986; Hammond *et al*, 1987; Simon, 1989; Allinson & Hayes, 1996; Armstrong, 1999) have reached a consensus that the cognitive style construct can be conceptualised in terms of the intuitive-analytic dimension. This cognitive style dimension will be used in current research to refer to this superordinate dimension of cognitive style. The instrument chosen to measure the analytic-intuitive cognitive style for the present research is Allinson and Hayes' (1996) Cognitive Style Index (CSI).

The CSI contains thirty-eight statements in a pencil-and-paper and self-report format with 'true-uncertain-false' choice of answers. Allinson and Hayes (1996) developed

this psychometrically sound assessment of cognitive style for administering in a convenient manner in large-scale organisational studies. The CSI has the following strengths:

1. The psychometric values of the CSI produce a distribution of scores closely approximating theoretical expectations
2. Excellent reliability in terms of internal consistency and temporal stability
3. Good initial evidence of construct and concurrent validity
4. Easy application in survey research
5. A unifactorial structure, suggesting that it may indicate the hypothetical unitary dimension of cognitive style.

Other researchers have offered further support for the reliability and validity of the CSI. Murphy *et al* (1998) provided evidence of the normal distribution and reliability ($\alpha=0.83$ and test-retest coefficient=0.89) of the CSI in their study of 89 Canadian business students. The findings also support the CSI construct validity by showing female business undergraduates scoring significantly higher than men and thus tending to have a more analytical style. Doucette *et al* (1998) studied 248 law students also in Canada, and found a normal distribution of scores and alpha coefficients ranging from .84 to .88. Results also indicated a significant difference between men and women ($F=4.58$, $df=1$, $p<.04$) with men being more intuitive and women more analytical, as predicted.

Data from a study involving 1050 respondents in a range of occupational and professional contexts (Sadler-Smith *et al*, 2000) found a maximum likelihood factor analysis obtained broadly similar results to those of Allinson and Hayes (1996).

They found satisfactory item-total correlations ($r > 0.30$) except for two items; the internal reliability ranged from 0.79 to 0.89. They believed that the items of CSI are homogeneous and show good reliability across a diverse range of samples.

Kline (1993) suggests that test-retest reliability should be computed after a three-months gap because the first measure may sensitise the respondents and therefore influence the results of the second measurement. However, if the time gap between two measurements is too long, there may be a change or maturation in the subject. The test re-test correlation coefficient should be as high as possible and certainly above 0.70. There is good evidence of the reliability of the CSI in this respect. In Allinson and Hayes' (1996) research, they reported a test re-test coefficient of 0.90 ($p < 0.001$) for a group of management students who completed the CSI on two separate occasions with an interval of four weeks. Armstrong and colleagues' (1997) study of a group of 65 computing students, showed that the coefficient for test and re-test with interval 8 weeks was 0.82, and 0.78 for a group of management students with 8 months interval ($n=19$). These data support the test re-test reliability of the CSI.

Hodgkinson and Sadler-Smith (2003) refer to two rival theoretical positions (multidimensional and uni-dimensional) regarding cognitive style and they argue that Allinson and Hayes (1996) incorrectly specified the nature of cognitive style when they presented the CSI as a measure of intuition-analysis predicated on a unitarist conception of the construct. Furthermore, they question the validity of the CSI's unidimensional structure on the basis of theoretical (Jungian personality

theory and cognitive experiential self-theory) and methodological (item parcelling and factor extraction procedures) perspectives.

In response to Hodgkinson and Sadler-Smith's (2003) theoretical challenge, Hayes *et al* (2003) cite the arguments of Simonton (1980), Hunt *et al* (1989) and Miller (1991) to support their assertion that Hodgkinson and Sadler-Smith (2003) fail to present a robust challenge to the unitarist view. Hung *et al* (1989) cite studies that find effects on only one of the Myers-Briggs bipolar dimensions (Behling *et al*, 1980; Henderson & Nutt, 1980) and others that suggest that data gathering (perception) and decision making (judgement) are not independent dimensions (Keen, 1973). Hunt *at al* (1989) therefore argue that the majority of individuals are either consistently analytic or consistently intuitive in both information gathering and information evaluation. Miller (1991, p218-219) also questions that Jung's two functional dimensions (sensation-intuition and thinking-feeling) and argues that 'a more reasonable formulation would be to contrast sensation/thinking with intuition/feeling, based on the argument from other researchers (Storr, 1973; McCaully, 1981) that someone who is analytical in perceptual style would also be analytical in memory and thought. Hayes and colleagues (2003) refer to Simonton's (1980) contribution of conceptualization of conditional probabilistic associations to support their argument of single dimension of cognitive style (see section 2.2.2).

In response to Hodgkinson and Sadler-Smith's (2003) question on item parcelling techniques which had been adopted to produce the CSI, Hayes *et al* (2003) argue that Hodgkinson and Sadler-Smith's argument contains confusion between the

empirical and conceptual. They claim that the six parcels of the CSI were formed on the basis of empirical evidence that items were significantly correlated rather than conceptually heterogeneous. Hodgkinson and Sadler-Smith (2003) also argue that Allinson and Hayes employed the exploratory method of maximise likelihood to derive the factors rather than use confirmatory testing, and they themselves tested three models (unifactorial, orthogonal and oblique) respectively using LISREL techniques. Hayes *et al* (2003) criticise these researchers who appear to let conceptual preconceptions lead to the empirical analysis and they also emphasise that the CSI should be treated as an empirical construct.

More recently, Coffield and colleagues (2004) conducted an independent systematic and critical review over the research models and instrument of cognitive style. Allinson and Hayes' CSI has shown the best psychometric credentials compared with the other 12 most popular instruments in the field (see Table 5.3). They summarise that:

'Overall, the CSI has the best evidence of reliability and validity of the 13 models studied. The constructs of analysis and intuition are relevant to decision making and work performance in many contexts, although the pedagogical implications of the model have not been fully explored (Coffield et al, 2004, p90).'

Other instruments presented in Chapter 2 were found either inconvenient or inappropriate for current research. For example, it is not practical to assess physiological measures of cognitive style using electroencephalograph. Witkin's

EFT measure was found to be more time-consuming and cumbersome for large-scale sample survey due to its approach of recognising figures embedded in their surrounding field. Due to the amount of items (approximately 100) in the MBTI form, it was felt that it would be time consuming to administer such a test, especially twice in a year with a combination of other tests. Both Kolb's Learning Style Inventory and Honey and Mumford's Learning Styles Questionnaire were found to have problems of validity and reliability. In a study of 95 workers in Hong Kong, Lam (1997, cited in Coffield *et al*, 2004) argues that Kolb's LSI does not provide a reasonable measure of learning style when used with a non-western sample.

In Coffield and colleagues' (2004) independent review of 71 models of cognitive style, they found that Riding's model cannot meet any of four key criteria (internal consistency, test-retest reliability, construct validity and predictive validity), Honey and Mumford's model only meets criterion of the test-retest reliability and fails the other three criteria, Kolb's model meets the criterion of test-retest reliability, but fails to meet the criteria of the construct validity and predictive validity, the Myers-Briggs's MBTI only meets the criterion of internal consistency and test-retest reliability, but fails to meet the criteria of construct validity and predictive validity (see Table 5.3)

Table 5.3 Coffield *et al* (2004)**13 Learning Style Models matched Against Minimum Criteria**

	Internal consistency	Test-retest reliability	Construct validity	Predictive validity
1 Jackson	-	-	-	-
2 Riding	×	×	×	×
3 Sternberg	×	×	×	×
4 Dun & Dun	×	×	×	√
5 Gregorc	×	×	×	√
6 Honey & Mumford	×	√	×	×
7 Kolb	-	√	×	×
8 Entwistle	√	-	√	×
9 Herrmann	-	√	√	-
10 Myers-Briggs	√	√	×	×
11 Apter	√	√	-	√
12 Vermunt	√	√	√	×
13 Allinson & Hayes	√	√	√	√

Source : Coffield *et al* (2004, p139).

Notes: 1) √ criterion met, × criterion not met, - no evidence either way or issue still to be settled; 2) The evaluation is in all cases 'external', meaning an evaluation which explored the theory or instruments associated with a model and which was not managed or supervised by the originator(s) of that model.

In conclusion, Allinson and Hayes' Cognitive Style Index was adopted in the current research in the belief that it is the best available for large scale longitudinal study due to its brevity and convenience to use; its psychometric qualities which meet high standard of reliability and validity; and its apparent suitability for measuring the superordinate intuitive-analytic dimension of cognitive style,

5.4.3 Measurement of the Malleability of Cognitive Style

Malleability of cognitive style was measured by producing test/re-test coefficients for subjects who took the test at two different times. The interval between two tests was 6 months and the justification for this 6 month interval was discussed in chapter 3. Independent sample t-tests were used to determine whether changes between the two tests were significant.

5.4.4 Measurement for Interaction Effectiveness

The Sociocultural Adaptation Scale (SCAS) was designed by Searle and Ward in 1990 to measure the individual's ability to manage everyday life in a new culture. It has been widely used in the research of acculturation and in longitudinal designs. In this study this is used as a measure of interaction effectiveness. The version of the SCAS using in this study is the 41 items version. Items include making friends, shopping, dealing with authority etc.

An internal reliability (Cronbach's alpha) of 0.81 was found when using 16 items. Ward and Kennedy (1999) expanded the SCAS to include 41 items instead based on more than 20 sojourner samples and focused on the skills that are required to manage everyday social situations in new cultural contexts. Their SCAS thus covered a slightly broader perspective of adaptive skills such as dealing with the climate and getting used to local food. Among the 16 sojourning groups studied in their research, the reliabilities of the SCAS ranged from 0.75 to 0.91 (M=0.85). In Ward and Kennedy's (1999) research, four longitudinal experiments were conducted with the use of Sociocultural Adaptation Scale (SCAS).

The alternative measure, the Social Situations Questionnaire (SSQ) designed by Furnham and Bochner (1982), was not adopted due to the fact that there is less empirical evidence available for the comparison of the findings in the present study. Van der Zee and Van Oudenhov'er's (2000) 78-item Multicultural Personality Questionnaire (MPQ) was also rejected on the grounds that it is too long for the present study; there is also a lack of empirical evidence to support its reliability and validity compared with Ward and colleagues' SCAS. Bearing the aforementioned factors in mind, the SCAS was adopted for the present study.

5.4.5 Measurement for Acculturative Stress

Zung's Self-Rating Depression Scale (ZSRDS) has been used extensively in different contexts for the assessment of depression among migrants as a basis for comparing cultural differences in depression (Marsella *et al*, 1981; Bond, 1996), and

especially within the overseas Chinese community (Chang, 1985; Bond, 1996). Zung's SRDS employs four-point frequency scales ranging from 'a little of the time' to 'most of the time.' It is designed to assess the affective, physiological and psychological components of depression. Scores range from 0 to 60 on the 20-item scale with higher scores associated with greater levels of depression (i.e. poorer psychological adjustment).

Zung's scale covers affective, physiological and psychological components of depression. It has been largely used in cross-cultural studies, both cross-sectional and longitudinal (Cheung, 1996). The scale has been extensively used among the Chinese abroad, including in Hong Kong (Lee, 1991), Singapore (Kennedy & Ward, 1999) and P.R. China (Liu *et al*, 1991). Chang (1985) shows that the Zung's Self-rating Depression Scale is valid in testing overseas Chinese. In longitudinal studies, Zung's scale has proved useful in investigating the individual's cultural adjustment over time (Westermeyer *et al*, 1989, Ward & Kennedy, 1999). Searle and Ward (1990) argue that the Zung SRDS scale demonstrated validity with Chinese and Singaporean participants. They reported an alpha reliability of 0.79 for an adapted 19-item SRDS scale.

Other instruments were found not suitable for the present study due to its lack of use with respondents from different culture such as the General Health Questionnaire and less evidence available for comparisons of findings of the present study with findings from other studies (e.g. Beck Depression Inventory). Based on the fact that the Zung scale is generally regarded as reliable and valid across cultures and it has been widely used with cross-cultural travellers including Chinese students, it was

therefore chosen to be the measurement for the present study to assess the stress level of postgraduate students.

5.4.5 Measurement for Motivational Orientation

Motivational orientation was tested by both self-developed questions and interviews. Based on the literature in Chapter 3 and discussion earlier in this chapter, these questions include cross-cultural travellers' accommodation choice, socialising with host nationals and the extent of time allocated for local nationals. In order to gain a full understanding of the matter, motivational orientation was further investigated in the interviews by asking questions about such matters as individuals' reasons to go abroad and intentions to stay in host culture. Factors that may have influenced motivational orientation included past Western experience and pre-departure training.

5.5 Data Collection Strategy

5.5.1 Sample Survey A & B

The questionnaire (see Appendix 12.1) was distributed to students twice during a period of six months in the academic years of 2002-2003. The first data at Time 1 was collected in the first week, at the induction lecture for all the taught postgraduate students. One of the professors delivering the session to the new

taught postgraduate students allowed the author to distribute and collect data at that time.

Six months after the first meeting, with permission from the Leeds University Business School and cooperation from all the lecturers for each programme's course, the author distributed the questionnaire at Time 2. The questionnaire at Time 2 (see Appendix 12.2) contains four parts. Part 1 (one page for British students and two page for international students) comprised closed questions yielding data on the respondents' name, sex, age, nationality and degree courses. International students were required to answer questions on an extra page about their past western experience, pre-departure training, accommodation choice and socialising with British students. Part 2 (two pages) comprised Ward and Kennedy's (1999) Sociocultural Adaptation Scale and Zung's (1965) Self-rating Depression Scale. Part 3 (two pages) comprised Allinson and Hayes' (1996) Cognitive Style Index. In return, they were offered an opportunity to participate in a raffle draw with £250 incentives offered by the school.

5.6 Data Analysis for Survey A & B

5.6.1 t-test

The paired sample t-test was used to test the difference between mean scores of the same group of individuals at different times. For example, in the present study, one of the main hypotheses involved comparing the malleability of cognitive style of the

Chinese group between times 1 and 2, and for this purpose the paired sample t-test was adopted. The *P* value was reported to indicate the significance level.

The independent sample t-test was adopted to test the different means of two independent samples at the same time. In the present study, the hypothesis to compare the difference between the British and Chinese samples and the hypothesis to test the carry-over effect of the instrument required the independent sample t-tests. Again, the *P* value was reported together with the paired-sample t-test to indicate the significance level.

5.6.2 Pearson Correlations

Pearson product-moment correlation coefficients (*r*) were computed to assess the strength and direction of linear association between variables and the degree to which one variable may be predicted by another. Since odd extreme outliers can have a great impact on the *r* value, scatter plots were presented before the Pearson correlation test was conducted.

5.6.3 Computation

The Statistical Package for the Social Sciences (SPSS for Windows 11.0) was used to carry out all the computations.

5.7 Conclusion

In short, this chapter reports various issues relating to research methods, research design, sampling technique (sample survey), choice of research instrument (sample survey), data collection strategy (sample survey) and methods of data analysis (sample survey). The research design and sampling method of the present research yielded a most satisfactory number of subjects overall and allowed the measurement to test a relatively large number of variables. However, it also suffered from certain deficiencies at the same time like most other studies in the behavioural sciences. The important point is that the weaknesses of the research are discussed and acknowledged. It is believed that this will lead to a more valid and objective perspective on the study results. The next chapter will report the results from Phase I of the present study (sample survey A). Chapter 7 will report the results from sample survey B in Phase II of the study. Chapter 8 will justify the detailed sampling technique, data collection strategy and methods of data analysis for the semi-structured interviews. Chapter 9 will report the results from the semi-structured interviews.

CHAPTER 6

RESULTS (SURVEY A)

This chapter begins with findings from the tests of the series of hypotheses developed in Chapter 4. These data are presented at the first part of the chapter under the heading of 6.1 Tests of Hypotheses for Sample Survey A. This section contains the results of hypotheses suggesting that there are cultural differences in Cognitive Style between Chinese and British nationals; changes of cognitive style for Chinese subjects from the start of the acculturation (Time 1) to 6 months later (Time 2); no changes in cognitive style for British subjects over the same period; and the carryover effect of repeated research measurements (Cognitive Style Index) in the present study. It then presents the secondary findings from the Sample Survey A. These data are reviewed in the second part of the chapter in section 6.2 Other Findings.

6.1 Tests of Hypotheses for Sample Survey A

Phase I of the present study is a longitudinal sample survey based on a series of hypothesis illustrated in previous chapter (Table 5.2). Its purpose is to investigate the cultural differences in cognitive style and its malleability in a new cultural and educational environment. It was hypothesised that different nationalities have different information-processing styles and that foreigners would adapt their cognitive style in a brand new environment to achieve success. All respondents were students enrolled in a one year Master degree programme at Leeds University Business School.

6.1.1 Hypothesis 1 – Cross-Cultural Difference in Cognitive Style

It is hypothesised that Chinese and British subjects have different cognitive styles. A significant difference was expected from the CSI scores between Chinese subjects (A1) and British subjects (C1) at Time 1. One hundred and forty four Chinese participants and 44 British participants were involved in the survey at Time 1. An independent-samples t-test was conducted to compare the cognitive style scores for Chinese (n=144) and British (44) nationals, the results of which are presented in Table 6.1. This reveals that there was significant difference in CSI scores between Chinese and British subjects. British subjects were shown to have lower scores than their Chinese counterparts. The result suggests that the British and Chinese

nationals have a different cognitive style, i.e. the British are more intuitive while Chinese are more analytical. Hypothesis 1 is therefore supported.

In order to find out whether there were differences between the cognitive styles of Chinese males and British males, and Chinese females and British females, independent samples t-tests were conducted. Table 6.1 reveals that there was no difference in CSI scores between the female groups, but a significant difference between the male groups. The Chinese male subjects were more analytic than the British males. These interesting results therefore do not fully support the Hypothesis 1 due to the fact that no difference was detected in the female groups.

Table 6.1
Cross-cultural Differences in Cognitive Style - Independent Samples t-tests

Subjects	Cognitive Style Index														
	Time 1						Female								
	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>df</i>	<i>t</i>	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>df</i>	<i>t</i>	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>df</i>	<i>t</i>
Chinese Students	144 [†]	39.22	9.37	186	2.34*	45	42.18	9.47	69	2.81**	98	37.96	9.06	114	1.04
British Students	44	35.25	11.34			26	35.12	11.41			18	35.44	11.56		

Note: * $p < .03$, ** $p < .01$, [†] Total number of Chinese respondents regardless of gender.

6.1.2 Hypothesis 2 & 3 – Malleability of Cognitive Style

After six month of exposure to a new culture, the cognitive style of the Chinese students was predicted to have changed. A significant difference was therefore anticipated between the matched Chinese group at Time 1 and Time 2 (n=125). A paired-samples t-test was conducted to evaluate the changes in Chinese students' CSI scores through time. Statistical analyses using paired-samples t-test are presented in Table 6.2. This result reveals that there was a significant increase in CSI scores from Time 1 to Time 2. This suggests that the cognitive style of the Chinese group has changed significantly within a six-month period and this change was toward the 'analytical' direction. Hypothesis 2 is therefore supported based on the fact that changes were detected in Chinese subjects. However, the direction of change in cognitive style of Chinese subjects was an interesting finding, and Phase II study was therefore conducted to investigate this area in more details. Results from Phase II study are presented in Chapter 8.

There were 36 British participants involved in both the Time 1 and Time 2 studies. A paired-samples t-test was conducted to examine the changes in home students' CSI score. As shown in Table 6.2, there was no significant difference in CSI scores at Time 1 or Time 2 for the British group. This result suggests that British nationals did not change their cognitive style in their home country, even during a postgraduate learning experience. Hypothesis 3 is therefore supported.

In order to find out whether there were gender differences in the change of CSI scores, paired samples t-tests were conducted respectively in the present study. Table 6.2 reveals that there was no significant difference in CSI scores at Time 1 and Time 2 for the British male group. The same result was found for the British female group. These results suggest that neither British male or female subjects have changed their cognitive style over the six month period.

A paired-samples t-test was also conducted for the Chinese male students. As shown in Table 6.2, there was no significant difference in CSI scores at Time 1 or Time 2 for the Chinese male group. The result suggests that the Chinese male sample did not change their cognitive style after six months of exposure to the British culture and educational environment.

A paired-samples t-test was also conducted to examine the changes in CSI score with Chinese female students. Table 6.2 reveals that there was a significant increase in CSI scores from Time 1 to Time 2 for the Chinese female group. This result suggests that the Chinese female subjects have changed their cognitive style significantly within the six-month period and this change was towards the 'analytical' direction.

Table 6.2 Malleability of Cognitive Style – Paired Samples t-tests

Subjects	Cognitive Style Index							
	Time 1				Time 2			
	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>Mean</i>	<i>sd</i>	<i>df</i>	<i>t</i>	<i>correlation</i>
Chinese Students	125	39.21	9.13	41.11	9.25	124	2.67*	0.62
Chinese Male Students	40	42.00	8.59	43.18	9.57	39	0.89	0.58
Chinese Female Students	85	37.89	9.13	40.14	9.00	84	2.63**	0.62
British Students	36	36.36	11.11	35.50	11.88	35	0.69	0.79
British Male Students	20	36.45	10.66	34.00	10.44	19	1.68	0.81
British Female Students	16	36.25	12.00	37.38	13.58	15	0.55	0.80

*Note: * p < .01, ** p = .01*

6.1.3 Hypothesis 4 – The Effect of Pre-exposure of CSI

The Chinese experimental group had been exposed to the CSI at Time 1, while control group had not seen it before. The influence of pre-exposure of the CSI could be examined by comparing the results between these two groups. As hypothesised, if there is no carry on effect from the instrument, no significant difference between the experimental group and control group would be detected. However if there is a difference, it would indicate a carry-on effect, namely that people who have seen CSI before will be affected by it.

An independent-samples t-test was conducted to compare the cognitive style scores for the Chinese experimental group (n=125) and control group (n=63). Statistical analyses using the independent-samples t-test are presented in Table 6.3. This reveals that there were no significant differences in CSI scores between the Chinese experimental group and control group. Hypothesis 4 is therefore supported and there was no carry-on effect of repeated measures in the present study.

In order to find out whether there were differences between the cognitive styles of the Chinese male experimental group and control group, the Chinese female experimental group and control group, independent samples t-tests were conducted. Table 6.3 reveals that there was no difference in CSI scores between the female experimental and control groups and the same results were found between the male

experimental and control groups. This supports Hypothesis 4 that there was no any carry-on effect of repeated measures among the Chinese subjects.

Table 6.3 The Effect of Pre-exposure of CSI – Independent Samples t-tests

Subjects	Cognitive Style Index														
	Time 2						Female								
	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>df</i>	<i>t</i>	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>df</i>	<i>t</i>	<i>n</i>	<i>Mean</i>	<i>sd</i>	<i>df</i>	<i>t</i>
Experimental	125	41.11	9.25	186	0.61	40	43.18	9.57	56	0.58	85	40.14	9.00	128	1.20
Group															
Control Group	63	41.98	9.09			18	41.61	9.62			45	42.13	8.97		

6.2 Other Findings

6.2.1 Gender Differences in Cognitive Style

In order to find out whether there were differences between the cognitive styles of men and women, independent-samples t-tests were conducted on the Chinese and British subjects respectively in the present study. As shown in Table 6.4, these revealed that the Chinese females (M=37.89, SD=9.13, n=85) were more intuitive than the Chinese males (M=42.00, SD=8.59, n=40). The difference was significant ($t=2.39$, $p<0.02$). No significant difference was detected between the British male (M=36.45, SD=10.66, n=20) and female students (M=36.25, SD=12.00, n=16).

Table 6.4 Gender Difference in Cognitive Style – Independent Samples t-tests

Subjects	Cognitive Style Index							
	Male			Female			df	t
	n	Mean	sd	n	Mean	sd		
Chinese Students	40	42.00	8.59	85	37.89	9.13	123	2.39*
British Students	20	36.45	10.66	16	36.25	12.00	34	0.05

Note: * $p < 0.02$

6.3 Conclusion

The results show that among male respondents, the British are relatively intuitive and the Chinese are relatively analytical, a finding consistent with Allinson and Hayes' (2000) research. The main contribution of this research is to provide a more detailed investigation of the effect of acculturation on the malleability of cognitive style in an acculturation context than has been reported previously. The female Chinese students showed a significant shift after six months' stay in a British university while the British students showed no such changes. This implies that the acculturative experience may have an influence on an individual's information processing. A follow-up study was designed and conducted to investigate the details of how cross-cultural experience could affect the malleability of cognitive style. Based on results from Phase I study, interviewees were also selected to pursue the different groups of changes in CSI scores. Further details will be discussed in the Chapters 7, 8 and 9.

CHAPTER 7

RESULTS (SURVEY B)

This chapter looks at how the acculturation process might have an effect on cognitive style over a period from the start of the acculturation (Time 1) to 6 months later (Time 2). The investigation comprises two parts: a self-developed questionnaire survey and an in-depth semi-structured interview with specially selected candidates. The survey is designed to collect data about demographics, past experience in Britain, pre-departure training, accommodation, socialising with host nationals, and interaction with host culture and stress level. These data are presented in this chapter. Based on the survey results in Chapters 6 and 7, 19 candidates were specially recruited for semi-structured interviews to supply further details and the interview questions are outlined according to the following themes: pre-departure information, and various experiences in Britain including education, socialising, accommodation etc. These data of 19 in-depth interviews are reviewed and reported in Chapter 9.

7.1 Demographic Overview of the Study on Acculturation and Cognitive Style

Questionnaires were distributed at Time 1 (1st month of arrival) and Time 2 (six months later) to 197 Chinese and 83 British postgraduate students. Of these, 125 matched questionnaires were returned by Chinese subjects (response rate of 63%) and 36 were returned by British subjects (a response rate of 43%). Table 7.1 displays an overview of the sample for this study according to the average age and gender. Although the Chinese average age was 13 months younger than the British average age, no significant differences in age were detected between the Chinese and their British counterpart.

To investigate the impact of age on cognitive style, a Pearson product-moment correlation coefficient was computed for CSI scores between Time 1 and Time 2. There was no strong correlation between the two variables at either Time 1 ($r=0.06$, $n=124$, $p>0.05$) or Time 2 ($r=-0.11$, $n=124$, $p>0.05$). This result reveals that no strong relationship existed between age and cognitive style and it is consistent with findings from previous studies using the CSI.

With regard to the influence of gender on cognitive style, mixed results were found. Independent-sample t-tests were conducted to test gender's impact on extent of interaction, interaction effectiveness, stress level, CSI scores at Time 1, Time 2 and CSI scores difference. As shown in Table 7.2, significant differences were detected only in cognitive style at Time 1.

Table 7.1 Age of Participants in the Study

Group	n	mean	minimum	maximum	Standard deviation
Chinese	125	25.91	21	40	4.37
Chinese male	40	27.08	21	40	4.43
Chinese female	84	25.36	21	38	4.26
British	36	27.00	21	53	7.12
British male	20	29.60	21	53	8.07
British female	16	23.75	21	35	3.96

Table 7.2 Gender and Other Variables

Tests for Chinese sample	Male			Female			<i>t</i>	
	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>		<i>df</i>
Extent of interaction	20	19.22	17.88	41	22.90	19.54	65	-0.75
Interaction effectiveness	40	38.80	14.20	85	36.72	14.62	123	0.75
Stress level	38	19.05	6.23	85	20.79	6.74	121	1.35
CSI Time 1	40	42.18	8.76	85	37.88	9.33	123	2.45*
CSI Time 2	40	43.18	9.57	85	40.14	8.99	123	1.72
CSI difference	40	6.45	4.67	85	6.28	5.38	123	0.17

Note: * $p < .02$

7.2 Past Experience in Britain and Cognitive Style

According to the literature reviewed in Chapter 3, past experience with the host country might have an impact on cognitive style. An independent-samples t-test was conducted to compare the cognitive style scores at Time 1 for the group with past experience of Britain (n=20) and the group without (n=105). As shown in Table 7.3, there was no significant difference in scores at Time 1 or Time 2 for group. A paired-samples t-test was conducted to evaluate the impact of past British experience on CSI score differences between Time 1 and Time 2. Those with past experience did not show a significant shift in their CSI score during their acculturation time. However, the female group without past experience showed a significant increase in their CSI score during that period. The result suggests that the cognitive style of the Chinese female group who had no past experience in Britain has changed significantly within the six-month period and this change was toward the 'analytical' direction.

Table 7.3

Past Western Experience and Change in Scores on the Cognitive Style Index

Chinese Sample	Cognitive Style Index					
	Time 1			Time 2		
	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>t correlation</i>
With past experience	20	40.50	8.79	42.05	9.83	19 -0.89 0.65
Without past experience	105	39.02	9.46	40.93	9.18	104 -2.44* 0.63
Male	32	42.91	8.49	43.75	8.95	31 -0.60 0.58
Female	73	37.32	9.40	39.70	9.06	72 -2.53* 0.62
df		123		123		
t		0.65		0.49		

*Note: * p < .02*

7.3 Pre-departure Training and Cognitive Style

As described previously in Chapter 3, the literature suggests that pre-departure training may have an impact on cognitive style. An independent-samples t-test was conducted to compare the cognitive style scores at both Time 1 and 2 between the group with pre-departure training and the group without. As shown in Table 7.4, there were no significant differences in CSI scores between the former group and the latter group at earlier point.

A paired-samples t-test was conducted to evaluate the impact of pre-departure training on CSI score differences between CSI Time 1 and Time 2. The group who had training did not show a significant shift in CSI score from Time 1 to Time 2. However, the group without training did show a significant increase in their CSI score from Time 1 to Time 2. The result suggests that pre-departure training has an effect on cognitive style and that lack of training resulted in a significant shift of CSI scores towards a more analytical style after six months of acculturation.

Table 7.4

Pre-departure Training and Change in Scores on the Cognitive Style Index

Chinese Sample	Cognitive Style Index					
	Time 1			Time 2		
	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>t</i>
With training	27	41.04	7.89	43.37	7.48	19 -0.89
Without training	98	38.77	9.67	40.49	9.63	97 2.06*
df	123			123		
t	1.12			1.44		

*Note: *p < .05*

7.4 Accommodation Choice and Cognitive Style

In order to investigate the impact of the extent of interaction with local culture on cognitive style, the accommodation choice of the Chinese students was analysed. An independent-samples t-test was conducted to compare the cognitive style scores at Time 2 for the group who lived with Chinese nationals only and the group who lived with mixed nationals. The size of the group who lived with British nationals only was too small for statistical analysis (n=3). As shown in Table 7.5, there were no significant differences in scores at Time 2 between those living with Chinese only and those living with mixed nationals.

A paired-samples t-test was conducted to evaluate the impact of the accommodation choice on score differences on CSI Time 1 and Time 2. Again, neither those living with Chinese nationals only nor those living with mixed nationals showed a significant shift in their CSI score. The data suggests there is no significant impact of accommodation choice on CSI scores. However it is unfortunate that no comparison could be made with those who lived with British nationals only.

Table 7.5 Accommodation Choice and Change in Score on the Cognitive Style Index

Chinese Sample	Cognitive Style Index					
	Time 1			Time 2		
	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>t correlation</i>
Living With Chinese	62	40.08	8.97	41.39	9.39	61 -1.32 0.64
Living with mixed nationals	54	38.87	9.64	41.02	9.30	53 -1.89 0.61
df	114			114		
t	0.70			0.21		

7.5 Socialising with Host Nationals and Cognitive Style

According to the literature reviewed in Chapter 3, it is thought that the quality of interaction with local culture may have an impact on cognitive style. An independent-samples t-test was conducted to compare the cognitive style scores at Time 2 of those who had socialised with British nationals and those who had not. As shown in Table 7.6, there was no significant difference in scores at Time 2 between the two groups.

A paired-samples t-test was conducted to evaluate the impact of socialising with local nationals on CSI score differences between CSI Time 1 and Time 2. Only the female group who socialised with British nationals showed a significant shift from Time 1 to Time 2. This suggests that for this group socialisation with the host culture is associated with a shift toward an analytical style after 6 months.

Table 7.6 Socialising with British Nationals and Change in Scores on the Cognitive Style Index

Chinese Sample	Cognitive Style Index							
	Time 1			Time 2			<i>t</i>	<i>correlation</i>
	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>df</i>		
Socialise with British	61	39.33	10.18	41.34	9.05	19	-0.89	0.65
Male	20	44.25	8.05	45.20	9.3	19	-.58	0.65
Female	41	36.93	10.32	39.46	8.41	40	-2.04*	0.66
No socialise with British	63	39.25	8.59	40.98	9.56	62	-1.65	0.10
Male	20	40.10	9.15	41.15	9.63	19	-.537	0.57
Female	43	38.86	8.39	40.91	9.63	42	-1.64	0.60
df		122		122				
<i>t</i>		0.04		0.22				

*Note: * p < .05*

7.6 Interaction Effectiveness and Cognitive Style

As mentioned in Chapter 3, interaction effectiveness with host culture was measured using Ward's Sociocultural Adjustment Scale (SAS). The relationship between interaction effectiveness and cognitive style difference (as measured by the CSI), was investigated using Pearson product-moment correlation coefficient. No correlation between the two variables was detected ($r=-0.10$, $n=125$). An independent-sample t-test was also conducted to test the cultural influence on the SAS score. Significant difference was detected (See Table 7.7).

Table 7.7 Cultural Differences in Interaction Effectiveness

Sample	Sociocultural Adjustment Scale (SAS)				
	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>t</i>	<i>df</i>
Chinese	125	28.63	11.56	7.05*	159
British	36	13.64	10.05		

Note: * $p < .0001$

7.7 Stress Level and Cognitive Style

Stress level was measured using Zung's Self Rating Depression Scale (SRDS). The relationship between stress level and cognitive style difference (as measured by the CSI), was investigated using Pearson product-moment correlation coefficient. No correlation between the two variables was detected ($r=-0.02$, $n=125$). An independent-pair sample t-test was also conducted to test the cultural influence on the SRDS score. As shown in Table 7.8, significant difference was detected.

Table 7.8 Cultural Differences in Stress Level

Sample	Self-Rating Depression Scale (SRDS)				
	<i>n</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>t</i>	<i>df</i>
Chinese	123	20.25	6.61	4.78*	157
British	36	14.17	7.05		

*Note: *P<.0001*

7.8 Conclusion

To summarise the findings from the survey, mixed results were found regarding the impact of the acculturation process on cognitive style. Age and accommodation choice did not show any relationship with changes in CSI, while significant changes in CSI scores between Time 1 and Time 2 were detected only in the students who

1. had no previous past experience in a Western culture,
2. had no pre-departure training, and
3. (the Chinese females who) socialised with British nationals.

An additional finding was that only the female group showed a consistent significant shift in cognitive style towards an 'analytical' direction. There were no gender differences detected in either interaction effectiveness or stress level. No correlations were found between interaction effectiveness and cognitive style difference and between stress level and cognitive style difference. Cultural differences were detected between the British and Chinese nationals in interaction effectiveness and stress level.

CHAPTER 8

INDEPTH INTERVIEWS: RESEARCH METHODS, SAMPLE, DATA COLLECTION AND ANALYSIS (II)

The literature on acculturation as reviewed in Chapter 3 suggests that a number of factors might influence the extent and direction of change in cognitive style following a move from home to new host culture. The second part of the research investigates how people adapt to a new culture and how this affects cognitive style in turn. Inductive logic and a sequential exploratory strategy were adopted for this phase of the study. The reasons for these choices were discussed in Chapter 5. This chapter focuses on the sampling technique, the researcher's role, data collection strategy and methods of data analysis for the semi-structured interviews.

8.1 The Characteristics of Qualitative Research

Qualitative research has certain unique characteristics (Rossman & Rallis, 1998; cited in Creswell, 2003, p181):

1. It takes place in the natural setting
2. It uses multiple methods that are interactive and humanistic.
3. It is emergent rather than tightly prefigured.
4. It is fundamentally interpretive.
5. The qualitative researcher reviews social phenomena holistically.

6. The qualitative researcher systematically reflects on who he or she is in the inquiry and is sensitive to his or her personal biography and how it shapes the study.
7. The qualitative researcher uses complex reasoning that is multi-faceted, iterative, and simultaneous.
8. The qualitative researcher adopts and uses one or more strategies of inquiry as a guide for the procedures in the qualitative study.

8.2 The Researcher's Role

Due to the interpretative nature of qualitative research, it is important to present the researcher's role in the qualitative study since his or her value and perception might have a strong influence on how he or she present the data (Creswell, 2003). The author's perceptions of how acculturative experience influences individuals' cognitive style has been shaped by personal experiences. From August 1998 to September 1999, the author travelled from China to Britain to pursue a Master's programme in Leeds University Business School. Being a cross-cultural traveller, the author had a unique experience within one year, and believes that this understanding of the context and roles has enhanced her awareness of the British higher educational environment. Owing to this, many subjects were very open to share their stories with the author during the interviews. Some of them considered the author as a psychological consultant during the interviews who, they believe, not only fully understood them emotionally and psychologically, but could also provide further information for them to make sense of their experience.

8.3 Sampling for Semi-Structured Interviews

The qualitative data were obtained from semi-structured interviews with 19 respondents chosen from the total number of persons who answered the CSI questionnaire at both Time 1 and Time 2. There were 11 males and 8 females, representing a broad range of CSI scores from 22 to 58, whose CSI scores changed between Time 1 and 2. The changes ranged from -9 to +16 (Table 8.1). Regarding the male respondents, the analysis of the CSI scores of the whole sample at Time 1 and Time 2 shows no significant difference, although there is clearly a change in the cognitive style of some respondents. The male interviewees expressed a range of levels of change in the CSI score, from -14 to +16. For the female sample as a whole, their CSI score has significantly increased after six months of acculturation. Analysis of the changes in CSI scores confirms the trend to become more analytical, although there are a few who showed either a decrease in their CSI or no change. The female interviewees expressed a range of levels of change in the CSI score, from -9 to +16. The male and female interviewees were therefore chosen to represent three major groups: those with an initial low CSI who ended with a higher score, those with a high CSI score who ended with a lower score, and those whose CSI scores did not change. The interviews were conducted six months after the collection of data from the second questionnaire (August-September 2003). Details topics covered in the interviews can be found in Appendix 12.3.

Table 8.1 Interviewees' CSI Score Profile.

Male				Female			
CSI T1	CSI T2	CSI difference	ID code	CSI T1	CSI T2	CSI difference	ID code
29	45	+16	A	39	55	+16	L
30	42	+12	B	35	48	+13	M
32	32	0	C	39	52	+13	N
50	47	-3	D	23	27	+4	O
58	54	-4	E	40	40	0	P
51	46	-5	F	45	45	0	Q
50	43	-7	G	22	16	-6	R
50	40	-10	H	50	41	-9	S
43	33	-10	I				
45	34	-11	J				
32	18	-14	K				

Note: The names of the interviewees were changed for anonymity

8.3.1 Background of the Participants

Eight females and 11 males were recruited for the interviews. Each interviewee was enrolled on one of the one-year full-time Masters courses at the Leeds University Business School: seven were studying for an MBA, three for an MA in Marketing and Advertising, three for an MSc in International Marketing Management, three for an MA in Accounting and Finance and two for an MSc in International Finance. Some of the courses, such as the MBA and MA and MSc Marketing, required more group work from the students than that required on other courses. It was anticipated that this might shape different acculturation experience for some interviewees and will be referred to later in this section.

Around half of the interviewees mentioned having some past experience of Britain (5/11 males, 4/8 females), and most of them had enrolled on either the university's pre-MBA course offered or an English language course at a language centre in Britain (5/5 males, 2/4 females). Two males and two females lived in England for one year prior to their course at LUBS. One male interviewees also mentioned having a pre-departure cultural training at their undergraduate university in China.

8.4 Data Collection Strategy

In the Survey result chapter, the result from the questionnaire of both Time 1 and Time 2 are presented. These results lend support to the hypothesis that cognitive style does change over time in response to the acculturation process. Only the female group however showed a significant change and the level and direction of change in cognitive style showed a wide variation. In line with the sequential explanatory research design outlined above, a series of in-depth face-to-face interviews were conducted to investigate the factors that influence this differential response. These interviews were conducted at various locations on the campus of Leeds University and Leeds University Business School based on the convenience of the participants. These settings included the cafeteria, common room and study room. Data were collected between August and October 2003 and included an average of 2 hours of recorded interviews with the participants (interview questions, Appendix 12.3).

In the first part of the interview, the researcher explained the purpose of the investigation, described the procedures which would be involved and requested a general description of interviewees' experience in Britain. The interview was conducted using questions relating to four different issues: background of the interviewees, pre-departure experience, acculturation experience (psychological and sociological), and respondents' perception of how their experiences seem to have affected their approach to process information.

The first section is to find out the candidates' background, i.e. their name, degree course, the place they come from and any work experience. By knowing the details of the interviewees' background, it will help better understand their perception of the acculturation experience, the British culture and their attitudes of this cross-cultural transaction.

The second section is about candidates' experience before they started their acculturation experience. Questions address the reason they decide to go abroad and their decision to choose the particular country and course, candidates' past experience with the western culture, candidates' past work experience; predeparture expectation, level of their language and western knowledge, pre-departure language training and cultural training received. The interviewees were also asked to describe their job nature and this helps the author to understand how their past cognitive style was which might have led to change within this year.

The third section is about interviewees' acculturation experience after they arrived. Questions relate to their background, past western experience, first impression of the UK, culture shock experience if any, daily life including accommodation, language used to communicate, educational experience etc (see Appendix 12.3). The interview questions also address the quality of their social life in UK. The interviewees were asked to describe the difficulties they have experienced, the cultural difference they have perceived, such as collectivism-individualism and hierarchy system, and the stress they have been through, if any (see Appendix 12.3). Questions were asked regarding their friendship network and the time spent with local people. Using Ward's Sociocultural Adaptation Scale and Zung's Self-Rating

Depression Scale as a guide, the interviewees were asked to describe the stress and difficulties they experienced during their acculturative experience by telling their personal tale of life in the UK and trying to explain their feelings. The interview also includes questions which asked the interviewees to describe their perception of the environment to provide an estimate of their arousal level when they first arrived in the UK. The interviewees were also asked to summarise their own changes during the acculturation experience, the perception with their experience and studying in the UK.

8.4.1 Before the Interviews

Several methods were used to contact the respondents identified for interview. The first one was to send a formal email to the would-be interviewees. The email addresses were obtained from the publicly available university email system. This method was however unsuccessful because of the very low response rate. Using the benefits of Chinese origins, the author then switched to get access to some interviewees' personal contact telephone numbers through personal contacts. These interviewees then offered the mobile phone number of the other particular interviewees the author was looking for. This sampling method is called snowballing (Mason, 1996). The majority of the interviewees were afterwards directly contacted via their mobile phone. Once the author obtained their permission to participate the interviews, emails of the interview invitation and venue were then sent out to each participant. A reminder email was sent again the day before the interview to confirm the arrangement.

To assist in the data collection phase, a field log, providing a detailed account of ways in time allocation during the interview was adopted. In order to be well prepared for the interview, the author gathered the interviewees' questionnaires for Time 1 and Time 2 together and produced a one page profile for each of them to summarise their answers and the differences in CSI in Time 1 and Time 2. Each interviewee's answer in the questionnaire was also attempt to memorise by heart so that a friendly and relaxed atmosphere could be created. This technique did work quite well during the interviews and the interviewees seemed to be more comfortable to talk to the researcher as a friend on their side rather than to a complete stranger. An indication of their relaxed attitude towards the researcher was their frequent use of expressions like 'you know how it is.'

As Kyriacou (2000) mentioned previously, the success of the interviews rests on the level of intimacy and trust present. Four pilot interviews with people who have been through the acculturation process were also carried out and some way of asking the questions were changed to be less formal and more 'chatty.' The interview style adopted was to try to make the interview rewind to that time at the past and both of us felt as if we were experiencing the farewell to China again. This part of the interview was usually very emotional; some interviewees showed strong feelings like crying and tears in the eyes or the exact opposite in that they felt proud that they did not cry in the airport. From that moment in the interview the atmosphere was friendlier and it would seem like this particular question is very efficient at breaking the ice between the interviewee and the interviewer. The interviewee would straightaway consider the researcher not as a stranger but a friend who shared the same experience.

8.4.2 During the Interviews

To create an immediate bond between the author and the interviewees, free coffee, tea and snacks were also offered during the interviews to make sure the interviewees were feeling comfortable and cosy so that they can be more open about the interviews and to the researcher. Before the real start of the interview, the participants were shown a brief structure of the interview to be conducted and offered the opportunity to ask questions to avoid doubts and uneasiness. Various questions such as the purpose of the research and even the researcher's future career were raised before the interview. The permission to record the interviews by recorder was also confirmed before the interview. The researcher emphasised that interview record would be kept confidential and only for research purposes. A record of the interviewee's behaviour through the researcher's observation was recorded and a field diary was kept to chronicle the author's own thinking, feeling, experiences and perceptions throughout the research process.

8.4.3 After the Interviews

After each interview, the appreciation to the interviewees' cooperation and the feedback of meaning of CSI result was offered based on the data. The confidentiality of the interview data was emphasised once.

8.5 Method of Interview Data Analysis

Creswell (2003, p191) suggest six steps to analyse the qualitative data:

Step 1 Organise and prepare the data for analysis.

Step 2 Read through all the data. A first general step is to obtain a general sense of the information and to reflect on its overall meaning.

Step 3 Begin detailed analysis with a coding process. Coding is the process of organising the material into 'chunks' before bringing meaning to those 'chunks' (Rossman & Rallis, 1998, p171).

Step 4 Use the coding process to generate a description of the setting or people as well as categories or themes for analysis.

Step 5 Advance how the description and themes will be represented in the qualitative narrative.

Step 6 A final step in data analysis involves making an interpretation or meaning of the data.

After the interview, the first thing the author did was to record her initial thoughts about the interview and summarise the perception of the interviewee's answer to the initial research questions. All these details were kept in the author's research diaries. Riley (1990) and Hammersley and Atkinson (1995) both suggest the use of a research journal to keep a record of the research experience. This has proven to be very helpful later on and helped avoid the danger of forgetting the relevant issues during the whole research experience.

For analysis, some representative interviews were chosen to carry out the initial transcription and analysis. Based on the interview analysis, some recurrent themes appeared during the comparison. They were divided into three different groups based on the changes of CSI score. The first one is the group which changed into more analytical, the second group is the one which turned into more intuitive and the third group did not show changes over time. Within each group, their particular changes via some obvious themes which appeared in each section of the interview questions will be discussed. These are interaction with the British culture, previous work experience influence, previous family influence, individual background, different perception of the western culture and educational experience, different attitude towards the acculturation experience, and the friendship network. Based on the category of chosen interviewees (see Chapter 9), a form was produced which includes all the interview answers from the same categories, e.g. the group with an increase in their CSI scores. Similarly, a horizontal comparison form within groups was also produced. By comparing the answers from three different groups, a horizontal comparison between groups was also conducted. A summary of the emergent themes was completed and given a correspondent code. This way of analysis is called the template approach (Crabtree & Miller, 1992).

8.6 Conclusion

In short, this chapter reports sampling technique, data collection strategy and methods of data analysis for the qualitative section of the present study. The next chapter will report the results from semi-structured interviews to seek the answers for how and why the change of cognitive style occurs in the acculturative process.

CHAPTER 9

RESULTS (IN-DEPTH INTERVIEWS)

The findings from the surveys have provided an interesting but complex view of changes in cognitive style occurring among the Chinese students over a six months period of study in England. A series of interviews was conducted with selected respondents to provide an insight into the psychological changes occurring and to complement the quantitative results from the questionnaire with qualitative data. This chapter presents the interview data by dividing the respondents into 3 different groups (Group 1, Group 2 and Group 3). Group 1 refers to the interviewees who have changed towards an analytical cognitive style. Group 2 refers to the interviewees who increase intuitive cognitive style. Finally Group 3 refers to interviewees who have shown no changes in cognitive style (see Table 9.1).

Within each group, the author then presents the results under series headings: socio-economic background, past experience, perceived British way of living, educational experience, socialising experience, interaction effectiveness and stress experienced, and perception of self. Finally, there will be an attempt to provide a cross-sectional summary of the results from above three groups and possible explanation for the malleability of the participants' cognitive style.

Table 9.1 Group Divisions for Interviewees

Group	Group 1 (Analytical +)	Group 2 (Intuitive +)	Group 3 (No Changes)
Respondents' Code	A (29-45) B (30-42) L (39-55) M (35-48) N (39-52) O (23-27)	D (50-44) E (58-54) F (51-46) G (50-43) H (50-40) I (43-33) J (45-34) K (32-18) R (22-16) S (50-41)	C (32-32) P (40-40) Q (45-45)

9.1 Characteristics of Group 1

9.1.1 Background Information

All the interviewees in Group 1 defined themselves as from a 'normal' or 'common' family background. This suggested that their family would not be regarded as 'successful' in China. Since the open-door policy in 1976, the Chinese perception of success has changed from being loyal to the Communist Party and belonging to the peasant class to being rich, powerful, and having a great network or *guanxi* in the society. *Guanxi* is very important in the Chinese life; good *guanxi* might guarantee any jobs while poor *guanxi* will hinder any chance of promotion (refer to Chapter 5). In the sample group, the interviewees' family background was not very strong, possibly not strong enough to provide them with a successful career through family network. Indeed, four out of six interviewees in this group went to work in another city not because there were no job opportunities in their hometown, but because of their poor *guanxi*. Those who did not work before were actively looking for opportunities to leave their hometown for better work prospects. Their family also seem to have no influence on their knowledge of western culture.

B, M, N and O mentioned that they were from a small town or city and were all very independent from a young age. *B*, for example, comes from a peasant family and left home for the city when he was 12 years old.

"I was totally on my own. Normally, people need their family's guanxi in China to achieve a good life, but my parents could not help me by any means. I achieved middle-class position totally by myself in my town. My father is a normal cadre

(government office clerk) in my town and my mother does farm work. I had left home to study (in the city) since twelve years old."
(B, MBA student, Male, 32, CSI T1 30-T2 42)

M also has less family support like B and she explains how she gained her independence because of her family background.

"I am a very independent person. My parents are normal workers in Jiangxi [a developing province in China]. They couldn't help me for jobs and career because they don't have much education. I was quite independent at that time and left my city to work in Guangzhou [a rich developed city in south of China]."
(M, MBA student, Female, 27, CSI T1 35- T2 48)

From the interviews, it would seem that the aforementioned respondents' independent characteristics were at least in part shaped by the lack of support their families were able to provide. On the other hand, N and O gained their independence because their families either did not have any experience relevant to their study and career plan (N) or did not take an active interest in their development (O).

N also comes from a small town originally and she gained her independence since young.

"I left home to study in the city since high school and I usually went home once per week. I am used to be alone and I have always been quite independent since... My parents couldn't offer me any advice on going abroad because their occupations didn't have any link to Western countries. My mum is a primary school teacher and my father runs his own business... My hometown is a small place and everyone was against me to go abroad because people from village cannot see very far, they only care about their own short-term benefits."
(N, MA International Finance student, Female, 24, CSI T1 39-T2 52)

O described herself as being very different from normal Chinese girls.

"My life is very different from other Chinese girls. My mum has never taken care of me because she is always very busy. Because of her influence, I have become very independent from young. I was born and brought up in Yingkou [a small town in north China], but I left home when I was 18 years old to go to university. I used to do whatever I wanted to do, study whatever I want to study, take any job and date any guy as I like."
(O, MBA student, Female, 30, CSI T1 23-T2 27)

This has in effect trained *B*, *M*, *N* and *O* to always plan for their own futures. This state of independence is even more pronounced when in a foreign country like England.

A and *L* on the other hand showed less signs of independence. It is the first time for both *A* and *L* to leave their home town and family. *A* describes the time when he made his decisions to go abroad and also comments on his communication with families.

“This is my first time to leave home. I was born, grew up and studied in Beijing. I have never left Beijing before... I stayed with my family when I studied at the university... My parents were concerned about my decision to go abroad, but they did not influence my final decision at all. This is because they don't really know much about it (studying abroad). My parents supported me financially, but didn't get involved in my decisions. It is not always like this. It is mainly because they don't know much about the western world. They respect my personal opinion on what to study and it is also because they don't know much about it. If they know, they will get involved.”

(*A*, MSc International Marketing Management Student, Male, 26, CSI T1 29- T2 45)

L's father is a sailor and is seldom at home. She therefore has a tight bond with her mother.

“My mum and I sometimes feel like sisters and sometimes like mum and daughter. I am always a bit dependent on my mother because my family is a bit like a one-parent family. I always like to discuss with mum for every single matters. She will offer her advice and then I will go and do it.”

(*L*, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

9.1.2 Perceived British Educational Experience

Interviewees in Group 1 were asked to describe their educational experience in Britain. They observed several differences between British education and Chinese such as the lack of a 'standard answer' in the British educational system and the

student-centred teaching style. Table 9.2 summarises these observations. Some of them are overlapped with replies from Group 2 and 3 (see Table 9.4 and 9.5). However, on the whole, interviewees in Group 1 showed their perception British education as an analytical and rational experience.

Table 9.2 Group 1's Perception of British Education

Perception of British Education	Respondents Code
No standard answer	<i>A, B, L, M, O</i>
Massive amount of reading	<i>A, L, M</i>
Learning style-rote	<i>N</i>
Student-centred	<i>A, L</i>
Focus on particular parts and study in details	<i>B</i>
Teacher's encouragement of students involvement in class	<i>A, B, L, N</i>
Critical thinking	<i>B, L, M</i>
Self-study	<i>L</i>
Practical knowledge	<i>B, M</i>

A commented on the educational difference between China and Britain in terms of more student involvement and the requirement for independent thinking.

“In China the teacher speaks and I just listen. Here students have more opportunities to get involved (in the teaching-learning activities) whether in lectures or tutorials. I prefer it this way because it forces you to think. For example, Bradley (one of lecturer’s name in LUBS) gives you two minutes to think. If you don’t think, what are you going to do then? It is not a good feeling if he asks you to answer later. I prefer it this way because it is more challenging. Marketing course is not like maths in that there is a standard answer. One problem has several perspectives. It is impossible to be as accurate as in maths, i.e., one is one and two is two. In China there are not many opportunities for students to get involved (including me). When I came here (to the UK), I need to consider problems more thoroughly (than before) because my previous major doesn’t require me to think very thoroughly. Even though my (undergraduate) major was in tourism management, it actually contains a lot of English language studies.”

(A, MSc International Marketing Management Student, Male, 26, CSI T1 29- T2 45)

The characteristics of the lack of a standard answer in the British education seemed to offer the opportunity for A to think from different perspectives and explore issues thoroughly.

B also argued that the British education is more thorough and scientific in its approach and encourages critical thinking while Chinese education is about knowing the correct standard answer, in either black and white terms. B perceived this as a positive benefit which had made him look at things more objectively whenever he met a problem:

“Education in England encourages critical thinking rather than offering you one standard answer like in China. Here they require you to discuss an issue from many different angles, e.g., when discussing a chair, you can describe its shape, or you can prefer to talk about its structure or colour etc. For the same topic, you can think it over from many aspects, provided you can cover all the aspects and be critical. I was not used to this way at the beginning because it was so different from my previous school education and the experience I learned from the society. (In China), it is about crystal clear and black-and-white education at school. Later I experienced office politics education from my work experience. Now I am back to school education which doesn’t offer one correct answers, instead encourages critical thinking...I have benefited a lot from this educational experience in England and I think it taught me to become more thorough, more objective and more scientific.”

(B, MBA student, Male, 32, CSI T1 30-T2 42)

B's perception of the Chinese education system was to train a student who would have to know everything, while the British system was more specialised and individuals were given much greater choice about what their area of specialisation will be.

"In terms of assessment, the Chinese system trains the students as know-all. A student has to know the book from the beginning till the end. However, the British exam is so easy to tackle because you can choose three out of nine questions [laughing and in a joking tone]. Actually the theme behind is to respect the individual's interest. Western culture favours individuality. In China it doesn't matter whether you like it or not, you will still have to study all of them for the exams. Here each and every individual is offered a right and respect to their individuality (to what you like and what you don't). I personally prefer the Western style since I can look at things from different angle to get into details for each topic. Man's energy is limited. There is a definite difference between the system that allocates ten hours on ten things or the one that gives ten hours on one thing. In Western countries, you can focus on one field and perfect everything in that field. Doesn't this link to the reason for the job distribution in the West to be so detailed and narrow? Chinese (culture) emphasises on 'big and thorough' while the West focuses on detailed division."
(*B*, MBA student, Male, 32, CSI T1 30-T2 42)

B went on to discuss how the above perception from his educational experience influenced his particular learning style.

"Due to the differences in education between East and West, I definitely changed my learning style to fulfil the requirement here. In the west they expect you to look at a topic more thoroughly and objectively, and meanwhile they also expect you to go into details and do further study for the topic. It is like to ask the blind man to touch the elephant and describe the feeling. So first you need to feel it from many perspectives and then you need to get closer to feel it properly."
(*B*, MBA student, Male, 32, CSI T1 30-T2 42)

M, also an MBA student had a similar argument for her perception of the British education system. The British way of emphasising critical thinking and objective thinking influenced her way of dealing with people. She also perceived that education in England did not offer standard answers and this helped her look at people more objectively. Compared with herself from before (when influenced by

the black and white way of looking at things), she now feels she has improved and become more tolerant of other people based on this British educational experience. *M* explained that her open-mindedness came from her time studying in England. She said she really enjoyed the experience of discussion and argument in class. *M* explained:

“Teachers in England encourage critical thinking. I can feel this in any courses. There were no standard answers. This benefits me a lot in terms of how to look at people. In the Chinese mind, there is either black or white. There is no grey area. This (type of thinking) also covers my working experience. But the education here makes me feel wrong to look at people in one standard way. I used to disagree with someone completely if I just found one point wrong. But now I am more tolerant.”
(*M*, MBA student, Female, 27, CSI T1 35- T2 48)

L commented that the British way of teaching is through the encouragement of critical analysis of a case, but she especially emphasised the British way of doing things step-by-step during her group work experience with British classmates. *L* is very positive with regard to the British way of teaching and learning and believed herself to have changed fundamentally because of this. *L* described her experience of group work as follows:

“Group work experience influenced me a lot... I became more careful to follow rules and regulations during group work experience...I could not be able to achieve perfect and thoughtfulness on my own ... In my group, we like to delegate different jobs to everyone. So I am used to the style of doing one thing at a time and read one area at a time as well.”
(*L*, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

O commented positively on her British teachers because of their integrity and step-by-step and rational way of working with efficiency. This is one of her main observations when she talks about her educational experience and perception of British way of living. However, her perception of the British educational experience seems different from those previously interviewed. For *O*, the lack of a standard

answer in the British education actually offered her the convenience of not learning detailed set answers, but simply applying principles to argue the case. When she summarised her achievement within the year, O said,

“My learning style should have some changes. For example, there is no standard answer in the exams here (Britain), so (I) just need to know things roughly rather than in details.”

(O, MBA student, Female, 30, CSI T1 23-T2 27)

She went on commenting on her improvement of analytical skills.

“My analytical skill used to be very poor, I think I have improved my ability in summarising and categorising, especially since I can use English to write assignment and reach their satisfaction. It is such an achievement.”

(O, MBA student, Female, 30, CSI T1 23-T2 27)

N, a student in International Finance, did not perceive any differences between the British and Chinese education systems. This might be because of the nature of her degree course. However, she pointed out that she had to change her previous learning style to adjust to the examinations set in her course in England. She therefore holds a negative view of British education. She commented that the content of the course is not difficult at all, but admitted to problems with the language. Before her exam, she actually had to memorise things by heart due to her difficulty with the English language.

“The education here is no different from China. The only difficulty was in the language. I found that the contents of the course here is actually rather easy, but it is in English now. In China I don't need to memorise them by heart, I can understand them in Chinese and write what I understood in the exam. However I had to recite everything here because it is in English. Before exams, I had to prepare them and then memorise them by heart. The exam here is so boring because I had to recite. I don't like this style and I still prefer the type which is based on comprehension.”

(N, MA International Finance, LUBS, Female, 24, CSI T1 39 – T2 52)

9.1.3 Social Life

Five out of six interviewees (*A, B, L, M* and *N*) perceived themselves to be overexposed to the Chinese culture during their cross cultural experience. As they were foreigners in a new environment with language and cultural difficulties, all of them found it difficult to get accepted in British society. Their problems are mainly related to feelings of loneliness, emptiness, homesickness and a strong need for friendship. It is therefore natural for them to make themselves feel better by going back to a familiar environment which is mostly provided by being with their fellow countrymen. Some of them even proactively looked for things that are familiar to them in a cultural sense.

A commented that he seldom interacted with British people during his one-year stay and he did not take the initiative to socialise with British.

“I don’t socialise with British people. There was only one British girl in my group, but she did not speak much... This year’s experience is not as colourful as I expected, maybe it is because I don’t socialise with local people and therefore I don’t know much about this country. Actually I know it is beneficial for myself to make more local friends, but when I saw some Chinese made British friends on purpose, I felt...[with hesitation].. too pushy and shameful and not necessary. I believe that destiny will bring me friends. It is not necessary to force myself to look for British friends to practise English.”

(A, MSc International Marketing Management Student, Male, 26, CSI T1 29- T2 45)

He went on to explain that his group of friends in England are all Chinese from different parts of China. This experience with different types of Chinese people made him more open-minded and more rational in dealing with people. *A* is from Beijing, the capital city of China. As with most inhabitants of Beijing, he is very

proud of his city and especially of his Beijing accent. There was an unspoken view of being better than people from outside Beijing. However it was through living and studying with other Chinese people in England that *A* feels that he became more open-minded about other people. He said:

“This year I have changed. I think it is because I have met different types of people here. Even though the people I have met this year were all from China, they were all from different places of China. It is not like before when I was in Beijing, I only dealt with Beijing people. But now I became less narrow-minded than before. Beijing people are born with a proud and arrogant feeling. Every time I hear a non-Beijing accent, I would automatically have a dislike feeling. However I won't think it this way anymore. China is such a big country with crouching tigers and hidden dragons [Note: this is a Chinese idiom which refers to outstanding people who like to hide their abilities]. So I have become more tolerant to other non-Beijing Chinese. I wouldn't do whatever I wanted to do (like before). At least I will be more polite to people I didn't like before... Maybe I can use these people in my network one day.”

(*A*, MSc International Marketing Management Student, Male, 26, CSI T1 29- T2 45)

A went on to describe his general emotions during his year abroad and his way of tackling these negative feelings. The way for him to escape from all the loneliness and emptiness is to run to somewhere crowded which reminded him of home.

“Sometimes when I study in my room, I can suddenly feel extremely lonely. I am on my own (in a foreign country), with no friends and relatives. (Whenever I felt this), I will run to somewhere full of crowd, like the city centre. Maybe I am used to the crowd in Beijing where is always full of people. Leeds is such a quiet city with very few people. This also made me feel lonely and bored.”

(*A*, MSc International Marketing Management Student, Male, 26, CSI T1 29- T2 45)

B, on the other hand, comes from a small city in China. He also did not have much previous exposure with Western culture before, and was very keen to experience it when he first arrived in UK. However, later during his year in England, he found himself much more comfortable being with Chinese people and he experienced a sense of being in China rather than in a foreign country.

“I felt relatively lonely on my own here. Life here is rather simple and boring compared with life in China. It is as simple as from A to B to C. I have a lot of friends in China and there are many more entertainment places at home as well. Whenever I felt lonely, I would run out from my room to join the activities in the union, or talk to my classmates. Later on, I realised myself joining back the Chinese

community like Hong Kong joining back to China. Originally I wanted to know more local Westerners, but I changed my mind later and wanted to know more Chinese people instead. At first I wanted to improve my English language which is a bit selfish and on purpose [laughing]. I was also curious to know how Westerners think and do things. I mainly wanted to know their way of doing things and their culture. But later I sort of gave up."

(B, MBA in finance student, LUBS, Male, 32, CSI T1 30-T2 42)

M described her socialising life as surrounded by Chinese only and she was eager to find out how to make British friends by posing a question to the author.

"I felt very difficult to make friends with British people. I am completely surrounded by a Chinese community. Can you make British friends?"

(M, MBA student, Female, 27, CSI T1 35- T2 48)

M also argued that she could not find British friends and foreign friends due to her culture and her nationality restriction. Instead she found many Chinese friends here.

"I found it difficult to make friends with the local people. It might only change if I settle down in England. Friends need time to nurture. Your culture and nationality already decide your life circle. So your time for Westerners is less. If you have less time for them, it won't be possible to become good friends. I didn't mean that it is impossible to make western friends, but time and past experience limits this opportunities."

(M, MBA student, Female, 27, CSI T1 35- T2 48)

After spending one month in London at a language school on her own, L was very nervous about her unknown future at Leeds. However, she described how relieved she was as soon as she saw that many of her fellow students were Chinese as well.

"My life in London was very comfortable and stable and felt like a holiday. But before I started my journey to Leeds, I felt worried and nervous for the uncertainty of future life. I started to think a lot about accommodation and the courses etc. All these made me feel nervous. But then I found many Chinese students and we shared information and help each other. I started to feel better and get used to the new environment."

(L, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

Later on she realised that she had lost the courage to explore Western culture further like when she was in London on her own. She argued that the Chinese community around her made her lose her own individuality and tuned her into the collectivism.

"I was full of curiosity and was exploring every interesting bits of Western culture on my own in London. However when I arrived in Leeds, I found myself 100 per cent surrounded by Chinese [quiet and started to lower her voice]. I started to become very cautious because I became lazy. It was so different from London; I was full of enthusiasm and risk-taking. I lived with five other Chinese in a flat and I didn't know how to use the library and the internet. Life was very boring because I didn't know how to use my spare time. From September to December, I felt extremely low and homesick. I wanted to give up and go home...I was very stressed out and felt my life was no different from China. (I was) stupid! None of my roommates knew how to use the facilities in the university and how to study here. I started to become lazy when I was with Chinese people... I didn't use any facilities on campus from September to December. Those three months were extremely painful memories. Maybe it was because the British people in London are more open-minded while people from Leeds are relatively conservative. It might also be because I didn't know the environment well and I became more cautious and careful. If there is nothing forcing me to become independent, I will be quite cautious. When I was in London, I was fully on my own and became very independent. The experience was interesting. But when I was with Chinese in Leeds, I lost my courage to challenge and started to follow the crowd. Maybe I was not mature enough to have the internal drive of independency, rather than depending on the environment."

(L, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

L lost her curiosity and independence when she was surrounded by Chinese culture. She started to become lazy and just followed the Chinese majority. She perceived very high stress and felt as if her life was the same as in China. She wanted to go home and also thought that her investment in a fake Chinese environment was not worthwhile. She felt life was boring and she did not know how to use time and fulfil herself. Her way of getting rid of the stress is to talk to other Chinese classmates so that she can escape the stress. This made her even more exposed under Chinese culture.

"...I lost my interest in England completely and wanted to go home at that time. The only way for me to get rid of the stress was to talk to other Chinese classmates. I used this way to escape. I didn't understand why I felt stressed then, but just unconsciously escaping. Even though I was at Leeds, my life was totally like in China. I was completely living with Chinese people, cooking Chinese food and speaking in Chinese."

(L, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

L argued that the Chinese community around her made her lose her own individuality and tuned her into the collectivism. Her previous comments on herself about her socialising skills with the British reveals how *L* felt in Leeds. She joked about the strength and pull of the herd-mentality as more and more Chinese students congregate and stick with each other.

L's perception of British people changed when she moved to Leeds from her short one-month stay in London. She felt the British system was conservative and traditional and very inflexible, as she found out when dealing with her bank. When charged for unauthorised overdraft on her current account even though her savings account was in credit, she was surprised by the bank's inflexibility to take care of her balances and money. She was very stressed over the incident but later:

"... I changed my mind and understood that this is your own thing to take care of. You were expected to know your balance and be in charge of that, rather than being told what happened to it. It is fully based on individualist perspectives. I didn't realise this till later in the year. But I found it so difficult at first and just wanted to go home and not come back."

(*L*, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

She also commented on her group work experience, which was too much 'by the book' for her taste. She explained her argument with the description that British people like to keep routines. Even though she found her own ways to explain this particular British style, she still remembered clearly how much pressure it brought to her at that time.

"British people are traditional, conservative and serious. Sometimes they are too inflexible. The way they do things are very simple, not as complicated as the Chinese way. British people keep a regular life and routine and do things step by step according to the system. They will not change their rules with a different people. But sometimes when they are too inflexible, you just cannot communicate with them. I felt this in my group work experience. My work partner [a British student] has to stick to

the book and do things step-by-step accordingly. Chinese just wanted to save time, so they become more flexible (rather than sticking to the book)."

(L, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

With no friends in England, N also felt lonely and stressed. Without making any proactive effort to meet people, N described her experience like this:

"It was difficult to make any friends. It was mainly because I was concentrating on my study this year. Also the Chinese circle is very narrow. It is even more impossible to meet Westerners, maybe because I did not have enough opportunities. There were lots of Chinese in my class...Life here is boring and full of pressures from study, and without friends. Even though I have friends here, I knew I would be completely on my own here... The only Westerners I have met here were from my lecture class."

(N, MA International Finance student, Female, 24, CSI T1 39 – T2 52)

In this lonely environment, N returned home during Easter break to make herself feel better when she had relationship problem.

"I really felt homesick and low around March [uncertain whether to say it or not]. Actually it was connected to my relationship with my boyfriend in China. We broke up, so this made me become even more homesick. I only had one friend (Chinese friend) which I often talk to. But friends cannot always be there for you and you just had to bear the loneliness and emptiness yourself. This feeling only resulted from the reason that I am alone in Britain...I didn't like the feeling of being alone and I needed a community."

(N, MA International Finance student, Female, 24, CSI T1 39 – T2 52)

This natural way of escaping to a familiar environment might result in extra exposure to a more familiar culture and cognitive style, i.e. the analytical cognitive style for Chinese people. Thus the respondents' cognitive style might be strengthened by their home thinking style and lead them to become more analytical. Feeling comfortable with compatriots might reinforce and increase a tendency to gravitate toward them.

9.1.4 Perceived British Way of Living

All of the interviewees in this Group described the British way of doing things as being to stick to basic principles. They also remarked that the pace of life is much slower in UK as compared to that in China. However these arguments were mixed with positive, negative and neutral comments based on their own perceptions.

Several interviewees mentioned that the pace of life in Britain is rather slow and that people do things rather inefficiently. For example, A spoke about the British queuing culture. He however has recognised that this may have evolved from society's respect for individual rights. He also thought that life is very quiet and boring in England because most of the shops all close at 5pm and are not open at night.

"The night life here is too poor. Apart from going to the pubs and nightclubs, they don't have any other entertainments. In Beijing, all the shops, restaurants and Karaoke bars open until very late. I don't visit them often, but I felt happy to be in the crowd when I see so many things going on. The pace of life here is much more relaxed than in Beijing. People are off work at five pm. Maybe Beijing is more like a metropolitan and some people might need to work overtime. Maybe the British people focus on their own enjoyment of life. They will not work any extra hour when the time is up. It can be understood as respect for individual rights. In China, overtime working is such a common thing... I didn't meet any difficulties in dealing with police registration or opening bank account when I first arrived. Their service attitude is all very nice, but relatively low efficiency. They (the British) are so famous of queuing for everything. I felt this straightaway when I was registering with the police. I am neutral on this. Obviously it is not good for the customers, but I can understand them. This country is richer and people in any job position have their individual rights. For example, when it is time for tea break, they will all stop what they are doing and take a break. But Chinese are more hard-working, for example, we work extra time and will not have a meal until we finish the work. We are definitely better than British in this perspective, otherwise our GDP will not increase that fast. I don't know what the GDP for this country is, but I suppose it is not increasing much. I think Britain is going downhill and it is much related to their work style. When the rest time comes, they all leave and nobody is producing values for the society any more while China is turning 24 hours without stopping."

(A, MSc International Marketing Management Student, Male, 26, CSI T1 29- T2 45)

B also shared a negative perception of English life. *B* comes from Shandong province, the birth place of Confucianism, and thought the society in England respects individuals based on his observation on drinking in Britain.

“The drinking culture here is that they just drink with a glass in hand. That is so different from Chinese drinking culture. Here they focus on the individual and independence. They place individual to a very high status while China focus on community and collectivism. We emphasise the hierarchy. For example, when we drink in China, people have to sit according to the hierarchy and you can tell people’s status just by the sitting plan. This is especially obvious in Shandong, the birth place of Confucianism and Eastern culture.”

(*B*, MBA student, Male, 32, CSI T2 30-T2 42)

Another comment is the perception that British people say what they think and when they say no they mean no. *M* also felt the difficulty in making British friends and her explanation was that they cared more about their own life and were not interested in having other people be part of their circle.

Apart from the general perception of cultural differences between China and Britain, the majority of the respondents argued that Britain is more systematic and scientific and that the British people do things step-by step. *M* argued she found that British people usually keep to their principles and she also thought that the British are more formal when they do things. She used to work in an import-export business and her past work experience taught her to rely on written rather than oral agreements when conducting business with foreign companies.

“British people do things with principles and I think it is better than the Chinese. It is definitely positive. For example when I first moved into a rented accommodation, I had to give deposit and went through all the procedures. I think it is to prevent future troubles. Some people said it is too troublesome, but I think it is good. Maybe this is linked with my previous work experience. British people are more formal than Americans. Americans are more easy-going. Chinese people are so changeable and I have less trust in them. They might want this today or just cancel it tomorrow.”

(*M*, MBA student, Female, 27, CSI T1 35- T2 48)

B thought the British usually do things step-by-step and based on plans.

“British people like to plan when they do things. For example, the food and food structure is so different. I wasn’t used to Western food before, but now I think it is good because it is so simple and structured, like ‘meat and two vegs.’ Simple food saves time and is also healthy.”

(B, MBA student, Male, 32, CSI T1 30-T2 42)

B went on to support his point of view from his observation of the British way of doing things in his daily life and with an example from his British fellow students.

“The English people’s attitude of doing things is very serious. They like to make a plan for everything. It is unnecessary. They need to have an agenda before the meeting. It is not my ways of doing things. I will just focus on the main points. My English classmates always take notes in his diary about what to do today and tomorrow. He writes down every single thing. I will prefer to use the time to do something else or maybe I am not as busy as him [laughing in a joking tone]... I never have the habit to write things down on a diary. Everything is in my head. I don’t think it is necessary, just waste of time. This is definitely a cultural difference.”

(B, MBA student, Male, 32, CSI T1 30-T2 42)

A commented that the British people put a lot of emphasis on personal enjoyment. He observed the quality of British service is good, but with very low efficiency. He explained his perception of the queues in the bank. A is quite neutral towards his observation of British culture and show understanding of this way of living.

“British people emphasise their personal right and enjoyment. For example, they will not work overtime as soon as it is the time for off work. This can be considered that they respect individual rights. It is not like in China where it is such a common thing to work overtime. I don’t mind their way of living at all. But I think I can understand why they do so. This country is richer, so everyone has their own right of doing things. For example, they are entitled to have tea break and lunch break at work here.”

(A, MSc International Marketing Management Student, Male, 26, CSI T1 29- T2 45)

O, as discussed earlier in this section perceived British way of doing things is step-by-step and she holds positive attitude to that. Similar observations were also shared by L, who gained her perception from her group work and her experience with the British banking system.

“There was a funny and annoying story which happened to me in the bank. I have never used chequebooks in China before. When I paid for the tuition here, it was supposed to be automatic deducted from my current account. The money was in my savings account and I thought it (my saving account) and my current account will be

connected and that money should transfer automatically. However nobody informed me until I received the statement and realised I got a fine. My first reaction was to ask why no one informed me first. The bank here will not contact you if there is something wrong with your account, but they will wait till the end of month. I couldn't understand this at all and felt they were very inflexible."

(L, MSc International Marketing Management student, Female, 23, CSI T1 39- T2 55)

In summary, the perception of a systematic country and inflexible ways of doing things might give the respondents an impression that the Western culture and the way of thinking are very rational and analytical. They therefore moved in this direction and become more integrated. This might influence them to become more analytical under the broader rational and step-by-step British culture during their one year abroad experience.

9.1.5 Previous Work Experience

Five out of six interviewees (*A, B, M, N, O*) had previous work experience in China. *A, B* and *M* experienced a change from a fast-changing work setting to the current studying environment. *A, B* and *M* worked as salesmen and saleswoman before and described the nature of their previous occupation which required them to be very intuitive and responsive. Indeed, both *A* and *B* had a relatively low CSI score (29 and 30 respectively). *M* also had an initial CSI score below 38 and all three increased their scores to over 38 (analytical) between Time 1 and Time 2.

A used to work as a salesman in a tobacco company. He described his previous work experience as follows:

"My previous job didn't need me to do things step-by-step. I have never had the habit to write down a plan... Like marketing itself, you can do it this way or that way and you can only find out whether it is feasible or not from actually trying it. For example

when I promote a product, I can suggest low price and someone can suggest high price. You can only test it in reality to see which method works. The result might be different in a different area. There is no standard answer and I knew this way of thinking from my work experience... Working in sales is a very unstable and challenging job... I did things at the same time because work is much more complicated and there were no obvious sequence to follow."

(A, MSc International Marketing Management Student, Male, 26. CSI T1 29- T2 45)

A's previous work setting required him to be more intuitive and to go with the flow.

This way of life changed when he arrived in England for his studies.

B was also a salesman and worked in a bank providing credit cards to customers. He described how his previous work experience influenced his attitude to follow rules:

"My previous job made me believe that following rules and regulations in China cannot make progress. This is definitely true. There are two kinds of rules for me. One is for me to follow, and the other one is not necessary to follow. For example, I will break the rules to provide credit card to certain customers for future guanxi. Actually this is strategy."

(B, MBA student, Male, 32, CSI T1 30-T2 42)

M worked as a saleswoman in a trading company of fireworks and has travelled to America to see her Western customers nearly three times annually. She showed her negative attitude toward her job when she described the nature of her work.

"I only visited America when I was working for this trading company in the last four years. About two or three times a year. I didn't want to go to America any more since my first visit. Because this company is privately owned and all the management system are in traditional Chinese way. It is also very tiresome to go to America. The network circle is very narrow. I didn't have chance to meet people from higher class. People who do import and export normally focus on one type of products and therefore mingle with one type of customers who are relevant with this product. We only interact with factory and logistic companies. In this field, the longer you work, the more experienced you will be. One day you will become an expert. Personally I think three month is the length of time for honey month in any field. I can't learn more after three months. After three months, one can only gather experience slowly. It is a sort of gathering in quantity, not quality. There will then be a quality change when the experience has reached a certain level. Then this person change to become an expert in the field. ... One of the main characteristics for trading is time difference. My mobile phone is normally on for 24 hours. People in Guangdong pay a lot of attention to customer services. Second characteristic is the product. Fireworks can only been previewed at night. This means that I have to work overtime at night

because this is part of my job... Also formal plans are normally useless during work. It is so changeable therefore planning might become an obstacle. The nature of my work decides this because there are too many unexpected occasions to occur and disturb any routine."

(M, MBA student, Female, 27, CSI T1 35- T2 48)

The description of these interviewees' past work experience can be summarised in the Table 9.3.

Table 9.3 Group 1's Perception of Past Work Experience

Perception of Past Work Experience	Respondents' Code
Not to do things step-by-step	<i>A, M</i>
No plan	<i>A, M</i>
no standard answer	<i>A</i>
unstable	<i>A</i>
challenging	<i>A</i>
no obvious sequence to follow	<i>A</i>
Not following rules and regulations	<i>B</i>

Their previous job required the respondents to be relatively more flexible rather than sticking to the rules at the start and this could explain how they actually scored relatively low on the CSI at Time 1 and had the potential to change their CSI score when experiencing their life abroad.

O and *N* have different past work experience compared with *A*, *B* and *M*. The former described her career path as extremely changeable and unpredictable and the

latter emphasize her past job was not a career but simply a waiting period for herself to get ready to go abroad.

9.1.6 Perception of Self

Second common factor for interviewees *A*, *B* and *M* is their readjustment of self-identity during their acculturative experience. *A*, *B* and *M* all claimed to have become more self confident. During the interviews, these respondents described vividly their views on living abroad and their feeling of greater confidence in themselves. Two of them, *A* and *M*, explained how their experience in England had changed their previous perception of people, making them more tolerant of others' opinions and ideas so that they could co-operate better with others.

As mentioned previously, *A* is from Beijing, the capital city of China. The fact that he lives in the capital city makes him feel like a better person as compared to non-Beijing inhabitants. By living with Chinese from outside Beijing in Leeds, *A* has become more tolerant and is now more likely to give them a chance instead of judging them.

B gained a more objective self-identity during his group work with Western people.

He claimed that he gained confidence since then.

"I used to work in a state-owned enterprise. In China, Western banks are made to look grand and powerful by the media. This made me really want to try for a career in a Western bank and feel that it would be a great improvement and achievement if I can work for a Western bank. However when I met several classmates here who used to work for Western banks, I didn't see anything great about them. Because I come from a small town, I always believed the Western people to be great. However when I

worked with those local students here, I realised there was nothing special about them and that I don't need to look up to them. Now I can see myself more rationally and objectively. I can do anything I want to do. This is my biggest gain this year."
(B, MBA student, Male, 32, CSI T1 30-T2 42)

L, N and O claimed themselves to have become more mature. *L* emphasised her way of dealing with stress. *N* emphasised that life in Britain requires her to be more independent. She also claimed that she has become more mature due to her age and her experience in her love relationship.

9.1.7 Summary

In summary, factors that appeared to be associated with the change of cognitive style towards analytical are:

1. less family support lead to independence,
2. perceived analytical British educational experience,
3. overexposure to the Chinese community,
4. perceived British systematic way of living,
5. past job experience which required an intuitive cognitive style, and
6. adjustment to a more objective self.

9.2 Characteristics of Group 2

9.2.1 Background Information

There are three main characteristics of Group 2 in terms of their background and past Western experience. First, six out of ten interviewees (*D, E, I, J, K* and *S*) commented negatively whenever they felt they were being under control or being told to do things by authority or by family. When *I* commented on the difference between British and Chinese education, he showed a positive attitude towards the British teachers' encouragement of the students' critical thinking. He explained his reasons as follows:

"...because when I was in China, I hate those teachers who are very bound to rules and not creative. It is just like I hate Chinese politics. This is why I always wanted to go abroad... Rules in China are very superficial and unnecessary. For example, there are some Party training and political behaviour training in China. I tried my best to avoid listening to the authority and attending those courses. I looked for any excuse for my freedom such as I had not reached the age to consider that. "
(*I*, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

When *J* described his perception of himself, he claimed that he never liked to be controlled.

"I am type of person if there are regulations and I will obey it. Regulations are for daily maintenance. But I don't like to be controlled and manipulated, I prefer the flexible way of management."
(*J*, MBA student, Male, 40, CSI T1 45-T2 34)

When *K* commented on his interaction effectiveness in Britain, he claimed himself not to be like those who follow rules.

"I am not those types of people who follow rules because I feel that rules are stupid. I don't like superficial rules. I was never a good student in my teacher's eyes."
(*K*, MSc International Finance student, Male, 28, CSI T1 32-T2 18)

D described how he fought against the authority.

"I practised Buddhism because of family influence. I try to stay neutral in normal social life. However, I will not hold neutral attitude if there are conflict in work, especially I will be even stronger when I have conflicts with leaders. I might offer concession if the conflicts is between me and someone junior. I don't know why."
(D, MBA student, Male, 28, CSI T1 50-T2 44)

When *E* described his perception of British education, he showed his negative attitude towards the superficial rules in Chinese education.

"I don't want to learn and understand the political and economic courses (during my undergraduate degree) in China because I think they are all in superficial level and the results of politics. They are not rules proven by academic research. I follow those rules of truth such as theories in physics. Once a politics teacher explained wrongly because he saw the wrong answer. When he realised it, he reexplained the question again in the opposite way. The students asked him why. The teacher answered that this is politics. I can't understand this stuff. I hate politics and always avoid it. I also hate all the theories from politics. I prefer the theories from physics because they make sense."

(E, MA Accounting and Finance student, Male, 24, CSI T1 58-T2 34)

S also complained about *guanxi* (network) and *renqing* (favour) in Chinese culture.

"I hate any guanxi, in both work setting and in family setting. I like the life here (Britain), it is so simple and peaceful. Whenever I thought about going home, I just felt full of troubles. I just don't like this."

(S, MA Accounting and Finance student, Female, 29, CSI T1 50-T2 41)

Second, seven out of ten interviewees (*D*, *E*, *F*, *G*, *J*, *K* and *R*) in Group 2 spent some time (from one month to a year) in Britain before they arrived in Leeds to start their degree course. *K* completed a one-year MBA course in Edinburgh. *J* also spent a year in England to pursue a Pre-MBA course. *R* accompanied her husband in Birmingham for a year as a dependant. Both *D* and *E* spent six months on an English course in London, where both *F* and *G* were on a month long pre-MBA programme.

Thirdly, compared with Group 1, Group 2's family background is more upper class than Group 1. Everyone in this group, except *K* and *H*, claimed their family background to be middle-upper class in China.

When *J*, a bank manager in China, talked about his stress when he first arrived at Leeds, he reflected back on his good life in China.

"My impression of life in Leeds is about walking, walking and walking. When I first arrived, I hailed a taxi. Then I changed to take a bus and finally I ended up with walking [laughing]. My life standard has dropped considerably... I never wanted to settle down in Britain. In China I shop in Radisson, but here in England I shop in Morrison [the local supermarket in Yorkshire]. My life here belongs to the lower class of the society. In China I belong to the middle-upper class, actually upper class. I never worried about all my expenditure as an upper class in China [laughing]. It is not my own money anyway, I was allocated funds by the bank to take care of the customers. It is a different case here. I don't have income here and things are expensive as well. That is why I never thought about staying in this country. First, I have a career, family and friends in China and everyone is equal back home. But it is not equal here in terms of language. The starting point is different between local people and me. Second, there is a cultural difference. Nobody will allow you to be a leader of English people and you will not get favours from your boss or authority."
(*J*, MBA student, Male, 40, CSI T1 45-T2 34)

D, *E*, *I* and *S* claimed their family as middle-upper class in terms of finance and *guanxi*. *E* told the author how much influence he obtained from his father.

*"My father runs his own business. My family belongs to middle-upper class in China in terms of financial background and social class... I was influenced by my father and started to show an interest in business. However deep down inside me, I prefer to be a quiet person. My father is very good at communication and very charismatic. He was originally a quiet person, but this type of personality doesn't help him in the business. No matter what, he still has to do the do and talk the talk. He has loads of friends and *guanxi*. My father asked his friend (a university professor) for advice and decided for me to study accounting for my undergraduate degree. I didn't know what accounting is about and didn't know whether I like it or not. It is just for a good job in the future and at the same time I will be able to help my family business. My father loves me a lot. Sometimes it is not a good thing. Because of love, he doesn't want me to leave home too far so that he can take care of me as much as he can and within his power of *guanxi*."*
(*E*, MA Accounting and Finance student, Male, 24, CSI T1 58-T2 34)

Indeed, even though his father got an opportunity for *E* to study in a prestigious university in Beijing through *guanxi*, he finally decided for his son to study in a city

closer to home so that he can take care of the son. *E*'s undergraduate degree and his later application to study abroad for a postgraduate degree were all organised by father through his *guanxi*.

S is from a very protective family which made her less independent and more cautious about a new environment. *S* has never worried about her life before in China but she started to worry after she arrived in England. She described how her past overprotected life resulted in making her over cautious and worried when she was in England:

"My family belongs to the middle-upper class in China. I don't need to worry about anything and we have strong guanxi as well. I used my family network for my job and for changing my degree at the university. This definitely affected how I make my decisions before because I don't need to think too much and I actually never worry from young. It is not necessary to worry and nothing needs to be worried about (due to my family). However, when I first came to England and started to think about the future, I started to worry and become nervous."

(*S*, MSc International Finance student, Female, 30, CSI T1 50- T2 41)

In China, it is very rare for students to change majors after they have started their undergraduate course. For *S*, it does not seem to be difficult. Her family managed to help her to get what she wanted through family *guanxi* easily.

D also used family *guanxi* to get himself a good job in the central government in Beijing.

"I used family guanxi to get into the National Development and Reform Commission of State Council in the Central Government. My parents normally leave me to make my own decisions in my study and jobs. If I ask them to help, they will do it such as getting me my job in the central government."

(*D*, MBA student, Male, 28, CSI T1 50-T2 44)

R summarised *guanxi* in a very subtle way and she claimed to prefer the Western way.

“Guanxi in China is such a subtle thing. It is difficult to describe it by words. You can only feel it when you experience it. It is very complicated to explain. Western teachers in my MBA course also mention guanxi a lot. I don’t like to proactively increase my guanxi with authority by flattering them. This is my principle not to make myself feel inferior. I am more influenced by the Western style that work is work. It is rather simple and doesn’t involve personal feelings. In China promotion is so relevant with guanxi. Guanxi is more important than your personal capability. My personality is not really suitable for the Chinese environment and culture, so I normally will control myself not to be too western when I am in China. I feel more comfortable in England. I can say whatever I want without considering too much. Everyone is equal and I don’t need to be inferior to do anything.”

(R, MBA student, Female, 37, CSI T1 22-T2 16)

9.2.2 Perceived Positive British Educational Experience

Interviewees in Group 2 were asked to describe their educational experience in Britain. They observed several differences between the British and Chinese education systems. Table 9.4 summarises these observations. Some of these observations overlap with the replies from Group 1 and 3 (see Table 9.2 and 9.5). The interviewees in Group 2, however, emphasised their positive perception of British education and proactive reaction towards it.

J complimented the British education for its quality.

“Education system in Britain is well-balanced, neither too loose or strict. It emphasises a lot on the quality of education, unlike in China. Nobody likes exams, but it is still very necessary. Otherwise there is no benchmark for evaluating the learning outcomes.”

(*J*, MBA student, Male, 40, CSI T1 45-T2 34)

Table 9.4 Group 2's Perception of British Education

Perception of British Education	Respondents' Code
No standard answer	E, F, G, H, I, R
Massive amount of reading	I, S
Learning style-look for the fundamental logic and try to understand it rather than rote learning	E, H
No authority from teacher	F, J, S
Good Student involvement	G, I, K
Teacher's encouragement of students involvement in class	G, I, K
No encouragement of individual thinking	D, J, S
Practical knowledge	F
Proactive learning	E, F, G, I, J, R, S

When I commented on the difference between British and Chinese education, he showed positive attitude towards the teachers' encouragement of the students' critical thinking. He explained his reasons:

"...because when I was in China, I hate those teachers who are very bound to rules and not creative. It is just like I hate Chinese politics. This is why I always wanted to go abroad... Rules in China are very superficial and unnecessary. For example, there are some Party training and political behaviour training in China. I tried my best to avoid listening to the authority and attending those courses. I looked for any excuse for my freedom such as I had not reached the age to consider that."

(I, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

I went on to comment on there is no standard answer in British education and his perception is that the underlying requirement for no standard answer is the creativity.

He found himself more comfortable with the assignment type of examinations due to less time limits for his creativity.

“There are no standard answers in here. It just depends on whether you can support your opinion. Teachers always emphasise that they don’t have strict rules and regulations, but I still find it a bit difficult, especially in exams. But I find it more comfortable with assignments. The nature of exams is a very rigid process. Because there is time limit for exams, it is difficult to answer the questions which are too broad. Since there is no much time limit for assignment, I can offer the creativity that the teacher wants.”

(I, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

R also perceived no standard answer in British education. Her observation is however confined to exams rather than to assignments.

“I felt there are no standard answers for exams. This is very good and I like it. My exam results are generally high. I don’t like assignments because it is more difficult. It requires systematic arguments and lots of reading. The requirement is higher because there is more time given. There is not much time during exams, so the requirement is of lower standard.”

(R, MBA student, Female, 37, CSI T1 22-T2 16)

She then went on to explain her reasons of this preference.

“For my exams, I need to learn things by heart and memorise theories which is great. However, for my assignments, I need to refer to a lot of books and I found it harder to summarise them.”

(R, MBA student, Female, 37, CSI T1 22-T2 16)

Finally she summarised her positive view on her educational experience in Britain.

“I am quite used to the MBA course here because they don’t bother with details. The reason I enjoyed it is also because of my language. I normally don’t like to look into details, but browsing through.”

(R, MBA student, Female, 37, CSI T1 22-T2 16).

E also showed his positive view on British education in terms of the integrity of teachers in Britain and the content of the education.

“I really enjoyed the education here. It is so different from my university in China. First, it is its teaching materials. Teachers here will recommend the best book for students to read while teachers in China will only recommend their own books because they want to make money out of students. Second, the good teachers in China

only concentrate on making money (rather than research). I could feel it. They are not thinking to complete their PhD before 30 years old and they will only focus on how to get themselves some administrative job to do or how to publish some papers in a newspaper column. No many people really focus on research... The majority of postgraduate students in China help their supervisors to do business. Teachers have their own business and projects. Their students help them to do these. This is so common in China, even in Tsing-hua University [the best university in China]."
(E, MA Accounting and Finance student, Male, 24, CSI T1 58-T2 34)

He claimed that he changed his mind with regard to his choice of career, and wanted to become an academic because of his educational experience in Britain.

"In China I don't know what I want and never thought of what sort of life I want to live. Everything changed when I come to Britain, especially in Leeds... I want to focus on academia which is such an important change inside myself. Maybe it is because I really concentrate on the reading these days and realised my real interest... Some articles made me feel very excited after reading. I am really impressed with thinking and theories. Where did they get these ideas from? Actually a lot of things are just ordinary things happening to us everyday, but we never take notice of it and think about it properly. After they wrote the article, then we realise it. Additionally, I am impressed with their focus. They can concentrate on one thing for a few decades. Why do they do that? It is difficult to tell. Maybe they want to make sure their country's system runs perfectly. These papers gave me a source to trace their career and look at how they started."
(E, MA Accounting and Finance student, Male, 24, CSI T1 58-T2 34)

E also described his first experience of the feature of no standard answer in British education.

"I felt one of the main differences between Western and Chinese education systems is the content of education. The teacher here is not too special, but they really stick to the facts. They don't pretend they know something if they don't. They encourage the freedom of my thinking. Sometimes, the case that they showed to us doesn't have a standard answer. At that time we were all looking for the best answer for that case, but the teacher told us that there was no standard answer for that. His explanation was that any answer would have a different effect in the reality. That was a really inspiring experience. Those cases are all real incidence in life and that (teacher's words) gave me quite a different feeling."
(E, MA Accounting and Finance student, Male, 24, CSI T1 58-T2 34)

E went on to explain how he changed with the educational experience in Britain.

"I used to learn things by heart and by rote before. In England, I learn by looking for patterns. I look for the relationship among things....I used to study for passing exams, but now I study because I enjoyed studying. I think my requirement for myself has changed since I came to Britain."
(E, MA Accounting and Finance student, Male, 24, CSI T1 58-T2 34)

F showed mixed feelings towards the British educational system. He however definitely enjoyed the experience of critical thinking and no standard answer in Britain.

“In terms of knowledge system, there is a difference between China and Britain. In China, there is a standard answer such as one is one and two is two, and you will be told how the answer will look like. In Britain, they will use two angles to analyse. I didn't feel this from the teacher's teaching. I got this feeling from all my readings. Western education has to look at all angles. Firstly talk about one angle, then use 'however' to talk about another angle. I was not very used to this style at the beginning, but I think I am getting better now... There may be some confusion when you look at things from two angles, but this actually is the better way before making decisions. Things will become clearer when discussing from two angles. This point is actually my biggest gain from the education here and it is so useful.”
(F, MSc International Finance student, Male, 29, CSI T1 51-T2 46)

G shared a similar point of view of the critical thinking and no standard answer in Britain.

“The education difference is that students need to write a lot of articles and read a lot for literature review. I have to make my argument from good and bad angles. It is a bit of a trouble, but it trains me to think critically. There is no standard answer in the education here. This is the biggest difference between Britain and China. I was offered many different schools of theories and each school has their own good and bad. Teachers only tell you their own point of view and encourage you to show your own opinion to make a judgement on this matter. All the courses are like this such as Strategic Management and Organisational Behaviour. There were no standard answers. This way of teaching is very useful for the work in the future. All the education I got in China only offers two dimensions, either black or white. It all offers a standard answer. When I came here, I realised that a lot of things are not that strict... There is a total change inside myself because I wrote the assignment myself. I think it doesn't matter how many names or theories one can remember, it is this way of thinking that is more important. This type of critical thinking is my biggest gain here.”
(G, MBA student, Male, 29, CSI T1 50-T2 43)

Interviewees D, H and S, have their own perception of the critical thinking feature in British education. D commented that the British education is very similar to the Chinese system.

"The education system here is very similar to the one in China. I only have a language problem. In my pre-MBA course, they never encouraged personal opinions. That is why I failed my assignment for Human Resource Management. "

(D, MBA student, Male, 28, CSI T1 50-T2 44)

S does not share her classmates' perception of the critical thinking element in British education. Her view of the British system is that it is quite rigid although this might be due to the nature of her degree course (Accounting and Finance).

"British education doesn't encourage your critical thinking. You have to write your ideas based on the teacher's handout. In China it is the same. Even though there is some more encouragement in the class here, they all have their standard answer behind. Both Chinese and British educations have standard answers. "

(S, MA Accounting and Finance student, Female, 29, CSI T1 50-T2 41)

H observed some differences in both education, but showed less willingness to adapt to the British style.

"Teachers here encourage students to have more of their own ideas. The Chinese teachers always have their standard answer to refer to. I am used to the style with a standard answer. "

(H, MA Accounting and Finance student, Male, 24, CSI T1 50-T2 40)

With the aforementioned positive perception of British education, some interviewees tried to become more proactive during their studies. J and I claimed that they had gained leadership skills during their groupwork. Interestingly, both of them fall into the group whose CSI score was analytical at Time 1 and changed to be relatively intuitive at Time 2. F did not mention any leadership skill obtained during his studies, he however did show his proactive way with dealing with teachers.

J described how he changed from the passive way of learning to a more proactive way of learning. He started with a story from his experience with language difficulty.

"For Chinese students, it is so difficult to listen and understand. It is considered very good already if one can understand around 70-80 %. It is not bad if one can

understand 50-60%. I was passive during group discussions (at the beginning). One reason is because of my language constraints; the other reason is due to the Chinese way of learning that we are not very willing to speak in public. My friends (other Chinese students) complained it is because of their problem to understand English and they are passive during group work. In fact this is not the only reason. Chinese education always trains people to be passive from young. We speak another foreign language only because we were forced to; nobody will take the initiative to speak. It is always better to get yourself less trouble. It is a pain to speak. I was also one of those who didn't like to speak. I didn't like this atmosphere and wanted to make a change. Once I gave a presentation, everyone compliment my work and said I did it astonishingly. If I don't practise everyday, how could I surprise people? R (J's classmate) also didn't speak at the beginning, but she changed to speak a lot later. I really appreciate her change."

(J, MBA student, Male, 40, CSI T1 45-T2 34)

Apart from his attitude towards language practice, J went on to describe how his learning behaviour changed to be more proactive during his experience in groupwork.

"I really enjoyed groupwork. I normally spend time with Chinese people during my work. I have a chance to interact with foreign students. There were one British, one Indian, one African, one from Hong Kong and two from China in my group. I noticed that different cultures have different ways of thinking. In the beginning there is a period of time for us to get used to working with each other. We made such a mess for the first competition of presentation. (At that time), being a Chinese I was very humble and think like if nobody propose me to be the leader, I will not invite myself to be. The African guy and Indian guy considered themselves to be the group leader. If you are highly efficient and you are right, then we will follow you. If you don't even have this basic quality, nobody will treat you as the leader. A leader must have charisma, how can you set up your charisma and make people follow you? One is through the power given by authority, the other is through the influence of your own behaviour. They (the African and the Indian group mate) don't have either. The teacher didn't ask them to be the leader and they don't do anything. Once they asked everyone bring their writing for the group meeting. I prepared it nicely, but they came to the meeting with nothing. (I was thinking) why don't you complete the task that you assign yourself? Who do they think they are? The teacher? Our group became very inefficient after a few times of meeting like this. Then I proposed to reform our way of working. Everyone takes turn to be the coordinator for a week and the reason I gave is that it is not fair for one person to do the job. The group like my proposal of reform and I listed a timetable and got rid of the original leaders [laugh proudly]."

(J, MBA student, Male, 40, CSI T1 45-T2 34)

J's behaviour change brought benefits for his study. He really enjoyed his group work experience due to his change to be more proactive.

"For the second competition, I was coordinating project. I did a lot of work and pushed the group to progress through a set schedule of what to do this week and next

week. This kind of work doesn't give you the real power or authority. You can't offer people bonus or punishment. You can only influence them by your own behaviour."
(J, MBA student, Male, 40, CSI T1 45-T2 34)

One of *I*'s observations of the difference between the British and Chinese education system is that of the students' involvement in the classroom.

"It is very rare to see students confront and argue with their teacher in the class in China. I speak quite a lot even though I seldom argue with my teacher. I like teacher's encouragement of critical thinking to the students because I don't like teachers who are very strict and inflexible."

(I, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

He went on to describe his feelings when he joined the discussion groups with his teachers.

"I felt myself so useful and confident when I joined the classroom discussion and groupwork discussion. I can feel myself as a leader maybe because my first degree is the same as what I am doing now. I know what I am talking about."

(I, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

Apart from the perception of greater critical thinking and no standard answer in the British system, some interviewees share other observations such as the distant relationship between the teacher and students. *F* observed a distant relationship between teachers and students, and among classmates in Britain.

"The teachers here do not really interact with the students after class. I used to live in a flat with six to seven people. The teachers (in China) have very close relationship with their students. There are all kinds of activities and classmates are very close to each other because we all live together. In England, everyone cares for their own business only."

(*F*, MSc International Finance student, Male, 29, CSI T1 51-T2 46)

F went on to describe his perception of teachers in Britain and his feedback on essays.

"I realised that the British way of doing things is that you have to open your mouth to ask for help, and then people will be very warm-hearted and try their best to help you. If you don't ask, you don't get it."

(*F*, MSc International Finance student, Male, 29, CSI T1 51-T2 46)

J also shared a similar view that there is a distant relationship between teachers and students.

“In China I was on self-study courses [like the courses offered by the Open University], so I am used to this way of learning already. Teachers here don't really care about you... They disappeared after they finished teaching. I actually like it this way. I don't like people always peeping on me since I can take care of myself. I just don't feel comfortable.”

(*J*, MBA student, Male, 40, CSI T1 45-T2 34)

Compared with *F*'s neutral and *J*'s positive attitude toward the distant relationship between teachers and students, *S* showed a more negative attitude.

“Teachers here do not have much communication with students. In China, whenever I thought of something, I would go directly to the teacher. But I need to make an appointment first via email. They might not be available for at least two weeks. This has happened several times. If they don't reply to my email, I will keep on sending until they answer. It is not a good feeling [angrily]. It is not that they are not responsible, it is the difference in culture and attitude. They (teachers) are fine in the class, but they just don't want to see you outside of the class.”

(*S*, MA Accounting and Finance student, Female, 29, CSI T1 50-T2 41)

9.2.3 Social Life

Even though *J* has changed to become very proactive, he still regretted the fact that he did not manage to make more local friends.

“My only regret is that I didn't interact enough with the local people during my study here. Even though my English ability has improved, it is not as good as I expected. However it is definitely better than my Chinese classmates' even though they are all younger than me. One reason is that my foundation is better and the second reason is that I am proactive on practising. I sent email to propose to my Chinese classmates to speak English rather than Chinese when we meet, but nobody listens and they even laugh at me.”

(*J*, MBA student, Male, 40, CSI T1 45-T2 34)

J showed his negative attitude towards Chinese way of behaviour.

“I don't understand the Chinese people. They spent so much money (to study abroad), and they need to go back for interviews. I don't have this kind of worries because I was sent by my company and there are promotions waiting for me when I get back to

China. My Chinese classmates didn't agree with my proposal of speaking English and kept speaking Chinese. When I called them and tried to speak English on the phone, they sort of reply in two or three broken English and changed back to Chinese straightaway... During this year, my Chinese friends mainly speak Chinese when they are together. Forcing them to speak English was useless. They didn't speak English during group discussion and they didn't attend any presentation."
(J, MBA student, Male, 40, CSI T1 45-T2 34)

I also admitted that he had problems making local English friends apart from his English groupmates. He described his mixed feelings.

"If I am with a group of English, I will feel myself very tiny and not be part of the group. I don't like this kind of feeling and sometimes I try to avoid this situation from happening. I lost my passion to this kind of social gathering. However if I have one or two English friends in the group, I might go. If I know they will be together with more English people, then I will not go. Compared with other Chinese, I consider myself to be quite easy to socialise with local people. However it is still not enough. Every Chinese know this and actually English people can feel it as well. It doesn't matter how many years you stay in this country, you always find it difficult to be part of them. I think that must be a very very rare case or simply does not exist."
(I, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

K also shared a similar view with J and I. He believed that the difficulty is mainly due to culture rather than language.

"I have less chance to communicate with English people. The information I know about them is mainly from watching TV. It is very difficult to make British friends because of culture difference and appearance etc. The English find it easier to talk to other English. There are always obstacles when I talk to an English, which make us uncomfortable. This is not just a language problem; it is mainly due to culture. The environment we grow up is so different."
(K, MSc International Finance student, Male, 28, CSI T1 32-T2 18)

R has stayed in England for a year as a dependent for her husband and showed her strong feelings towards the local people. She explained her reasons for not socialising with them.

"I don't socialise much with local people and mainly stay with Chinese. This might be because I already know a lot of the British culture and don't need to proactively interact with them. I feel that deep inside they (the English) look down upon us Chinese. For example, the British students complained that the Chinese students were wasting their time in the class. I don't want them to feel that I am inferior to them. I however spent a lot of time with other foreign students such as Indians and Russians. Local students show no interest to join us. Since they are not proactive, I just behave in the same way. If I see a foreigner in China, I will be very warm hearted and proactively introduce China to them and show interest in their country. I

think this way makes them feel comfortable. Even though they (the British students) know we are foreigners in this country, they never show concern about my country and never introduce Britain to me. Whenever people try to ignore me, I consider that as racial discrimination.

(R, MBA student, Female, 37, CSI T1 22-T2 16)

F used to work in a foreign company in China and showed his negative attitude towards only socialising within the Chinese community. He offered his explanation.

"I rarely stay with the Chinese in England. This is because I can see what will happen if I only socialise with Chinese people... it is not because I look down upon the Chinese people, it is just my style. In China I spent a lot of time with Westerners... I argue that it is better to assimilate in to a new environment when you are there. For example, when one in Rome, do as the Romans do. I don't want myself to become too Chinese by staying with Chinese people. They always like to give negative comments on other Chinese people behind their back. That is a bad habit of Chinese culture. I don't see this as necessary and don't want to waste my time with them. I think we should learn about other people's culture."

(F, MSc International Finance student, Male, 29, CSI T1 51-T2 46)

He went on to describe his social life in Leeds.

"I went to parties like I did before in China. I went to pubs to socialise. Some foreign classmates from my course and I always meet up in the pub. They are all from Europe, South Asia and England... I rarely go to Chinese get-together. That is because I don't think I can learn anything new from them."

(F, MSc International Finance student, Male, 29, CSI T1 51-T2 46)

G did not take the initiative to socialise with British and he explained his reasons.

"I wasn't proactive enough to socialise with the British. My network only limits to the people that I met. This is so different from my original thoughts when I first arrived. It is because there are too many Chinese students here and I felt like I was speaking Chinese everyday. I planned to stay with local people, but I realised that everyone is busy with their own work and there is no time for me to socialise with the locals. During the first term, I used to hang out with an English girl in my class and her boyfriend who was studying Chinese in Leeds. I always went to their place if I had some spare time. I then stopped during the second term. My interaction with the British only stays at a superficial level. This is due to time limit, cultural difference and language constraints. Even though British people are very polite on the surface, I can feel the distance when I chat to them. I think this is their style of socialising."

(G, MBA student, Male, 29, CSI T1 50-T2 43)

D went to the pub with his local classmates, but also shared the view with G that all the interactions are only at a superficial level.

Without being proactive, *S* also found it very difficult not only to make British friends but also Chinese friends. Her explanation is that the British are not interested in the Chinese and there is also very few British students in her class.

“I don't have time and chance to meet local friends because there are not many local students in my class. I don't dare to go to pubs to meet people. I am scared.”
(*S*, MA Accounting and Finance student, Female, 29, CSI T1 50-T2 41)

9.2.4 Positive Attitude towards British Way of Living

During interviews, questions were asked regarding the interviewees' perception of Britain and of British people. There were some similar views recurring among the interviewees. Interestingly, when compared with the mixed comments from Group 1, Group 2 showed more positive attitude on the British society and British people they perceived. Some of them even showed dislike and wanted to run away from it, but they showed strong interest in staying in a Western country.

I, who also comes from Beijing like *A*, perceived that the British pace of life is rather fast compared with China.

“I felt the British people's pace of life is rather faster than in China. Just look at the speed they walk on the street, it is much faster than in China. There are people wandering around in China while people here all seemed to know where they are going with their head dropped. They get up early and do morning exercises. During holidays they either do some odd jobs like DIY or travel around. People in China only stay at home to watch TV. There are not much things for people in my parents' age to do at home but watch TV. Life here is generally more fulfilled and colourful.”

(*I*, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

However, *S* perceived life in England to be rather simple because the relationship among people is very straightforward and everyone has their own responsibility and duty. On the other hand, she has tired of the relatively complicated *guanxi* system in

China and would like to stay longer in a Western country. *E, G, H* and *I* also agreed about life in Britain and perceived it to be much simpler and quieter than in China. After a few months of getting to know British society, *S* started to love her new kind of life style and wanted to emigrate to a Western country. She felt frustrated with Chinese *guanxi* and expressed her dislike of it. *S* said she felt that people can do anything they want in Britain provided they do not break the law. People can accept anything ‘abnormal’ like going out with someone younger, giving up good jobs to spend money abroad or dyeing the hair. However in China people will discuss about your ‘abnormal’ activities and pass judgement.

“...I hate to deal with people and have no interest in knowing what they are thinking about me. But I love the life here, which is simple and quiet [in a confident tone]. When I go home (refer to China), I have to consider all the guanxi and renqing [favour]. I just don’t feel like it, even though I know I can do it if I have to. But I just don’t like it...I don’t like rules, but convenience. That is more comfortable [laughing]... To be honest, I don’t like the environment in China, too crowded, too noisy and there is too much guanxi needed to be considered from different perspectives, day and night. I have no requirement for my career and I just want to be a normal and simple person. It will be even better if I don’t need to work [laughing in an extravagant way]. I went abroad to escape from my work. The environment in China is too troublesome. You need to give people gifts and do networking. I hate them all. I don’t have the control of my own time and do whatever I want to do... I can do anything I like here provided I don’t break the law. I can do any abnormal things that people here can accept. In China, I have to be normal and part of the crowd; otherwise people will comment on your behaviour negatively. I often did strange things in China, like my previous boyfriend was younger than me; like I went abroad to spend money rather than keeping my job and not getting married.”

(*S*, MSc International Finance student, Female, 30, CSI T1 50- T2 41)

F also commented on the simple relationship in Western culture.

“People in my work are mainly Westerners. Compared with the Chinese, the relationship is much simpler. We only see each other at work and don’t socialise after work. Everyone has his or her own life and own principles here... I don’t feel comfortable to deal with my Chinese customers due to some of their impolite behaviour.”

(*F*, MSc International Finance student, Male, 29, CSI T1 51-T2 46)

H perceived that Western people really enjoy what they do, and appreciated this type of life style.

“When I started my part-time job in May, I realised the difference between Chinese and British. The life values and work values are so different. The Chinese people work in order to make a living while British people work for their own enjoyment. They love what they do no matter what occupation and social class. There is not much of a hierarchy system in their society. They just do what they enjoy to do... I really like their attitude to life and work because I will have more opportunities to try different things in life.”

(H, MA Accounting and Finance student, Male, 24, CSI T1 50-T2 40)

Apart from the positive comments on simpler relationship between people in Britain, *J* perceived Britain to be a country based on trust that does not need any significant strategy to prevent fraud in the system bearing in mind the high level of education and civilised behaviour of British people. *J* was also surprised at the lack of hierarchy in British society and illustrated his point with the way the British people treat their Prime Minister:

“I saw from the TV news how ordinary people would point at Tony Blair’s face and ask him questions about the war. This is impossible to happen in any other countries. When we (the Chinese) meet our Chairman we all show full respects to him. If anyone asks a question, it will be very indirect. If people here can ask direct questions to their Prime Minister this shows that they don’t treat leaders as a respectable status. They think it is just a job. If your work is not good, we can all criticise you. They don’t have any pressures when they see the Prime Minister. When people who are higher ranking than me come, I will be very cautious. I can’t imagine what I will do if the leader from the Central government comes; I will never dare ask questions like they do in England, but I will probably praise him by saying ‘long live our leader!’ [laughing]. I am very kind to people below me but they still feel scared of me. This seems to be characteristics that Chinese are born with. Many people are scared of leaders. The Chinese hierarchy system doesn’t exist in Britain. This is a huge cultural difference in both systems.”

(J, MBA student, Male, 40, CSI T1 45- T2 34)

J and others all perceived England to be a country with more freedom and more democracy than China, where anyone and everyone can equally and openly criticise their government. They might spend less time and energy in analysing people’s behaviour and can express themselves in a relatively free manner

K commented that the British people are more straightforward and frank, and that they say what they think while the Chinese will focus on *guanxi* which is very

complicated. In his opinion, the British do things according to rules in a very simple and straightforward way, but the Chinese style is more flexible and messy. *K* said he preferred the simple, direct, straightforward and diplomatic approach. The frankness of the British people is appealing. *K* thought that British people are more tolerant, which gave him the chance to be himself. He explained how the British society results in his change towards a more intuitive way of thinking:

"I was under too much pressure in China. I hate those types of formal plans and detailed work. I like to study philosophy and do things based on feelings. I can't explain it. My intuition was suppressed before and now I can let it out again. The environment in Britain provides more tolerance and freedom which encourages me to express my original nature."

(*K*, MSc International Finance student, Male, 28, CSI T1 32- T2 18)

K claimed that Britain gave him the freedom to be himself rather than being restricted like in China. However, he refused to talk about why he felt so depressed in China. He only mentioned that a sudden event in his family when he was a teenager made him share more responsibility within the family and made him become relatively more rational. In Time 1 *K* scored 32 on the CSI, but this was after a year on a postgraduate degree course in Edinburgh. Thus his original score could not be determined by the questionnaire, but guessed from his interview.

Apart from their positive perception of British culture, interviewees *E*, *G*, *I*, *J* and *S* also showed their negative attitude towards Chinese culture. When *J* described how he changed to be proactive to practise English, he showed support to one of his Chinese classmates who also changed like him by offering negative comments on other Chinese classmates.

"...Other Chinese classmates started to talk bad about her (R) behind her back and commented that she has become crazy and those questions she asked are just stupid. The Chinese have this problem that when they don't practise, they also don't like other people to practise. I told them she dared to ask question even though you think her question was stupid. How about you? You don't even have the guts to ask

questions. She is at least practising her English (by asking question). How can you comment on her? This is a very bad way of behaviour and psychology. When one is not outstanding, he/she also hopes for the others to fail.”

(J, MBA student, Male, 40, CSI T1 45-T2 34)

I also showed his disapproval of some Chinese culture and behaviour.

“The Chinese don’t speak out their opinions even though sometimes they don’t agree. This is the worst behaviour. They are not as aggressive as Westerners and they don’t speak out clearly what they want like the Westerners. This might be due to language difficulty.”

(I, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

Apart from language, I also commented in a negative tone on *guanxi* in Chinese culture.

“They (other Chinese) like to think of people’s relationship in a complicated way. This way and that way, how frustrating it is. Westerners don’t think it like that. There was a British girl in my group who said what she thought and she is very frank. I like it this way. It is better to make it simple rather than making it complicated. We (Chinese) can comment that her that she is simple-minded, but we can also say that she is so carefree. She doesn’t think too much about details of what if this way or that way, this person or that person. That is too complicated. She is quite a representative of the British way of thinking.”

(I, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

9.2.5 Previous Work Experience

J described how ‘analytical’ and ‘detailed’ his previous work was. J argued that his particular work required him to behave a certain way to match the job environment.

After working in the banking industry for many years, J became the manager of a local bank branch and he compared his job to that of a detective who considered everyone coming for a loan as suspicious. This working style required him to be highly cautious and careful about details. He has also shown a big decrease in his CSI score from 45 to 34. It would seem that the experience in England made him

more intuitive; perhaps his previous job occupation constrained him to be analytical.

He explained how his previous work resulted in a less intuitive working style:

“My job required me to take everyone as suspicious targets because we have to lend money to them and we need to make sure that they will return the money to our bank. So when we do everything we are extremely cautious. This is part of my job habit...we trusted no one especially when we lend money out. I believe in nothing they say, but my own investigation. No matter how close our guanxi is, I will make sure all the protection and insurance are in order. Then when he (the customer) signed the paper, I need him to do it in front of me, rather than letting him go to another room to sign and then return it to me. Everything we do has to be very detailed to avoid misunderstandings and problems... I don't think anyone can con me... When working in the bank you can't depend on being intuitive at all, but fully rational.”

(J, MBA student, Male, 40, CSI T1 45- T2 34)

K argued that his job was tedious and required attention to details due to the low end nature of the work. K worked as an accountant in a private company and did not like the detail required in his job.

S's past work experience required her to act thoughtful and analytical. S worked in the field of international trade and she found that her previous job required her to be very thoughtful on behalf of her customers. This way of life was changed when she arrived in England for her studies, and it appears she has changed her cognitive style (as seen from the decrease in her CSI score from 50 to 41). She explained how her past work resulted in a more analytical working style:

“My previous job required me to deal with many different types of people. I hated it. I don't like to deal with people and I wanted to leave. I felt when I dealt with people (customers), I had to analyse what they were thinking, especially during my work. I always have to very thoughtful and think many things on behalf of the counterparts.”

(S, MSc International Finance student, Female, 30, CSI T1 50- T2 41)

Both R and F had work experience with Westerners, and were very used to this working style. As discussed earlier, they both appreciated the straightforward relationship between Westerners in a Western company.

9.2.6 Perception of Self

J described how he thinks himself different from his Chinese peers.

“I am different from them (other Chinese). That is why I am quite outstanding compared with people of my age. My way of thinking is different from theirs. I believe that one’s success is through his/her hard work and I can’t be outstanding in any field. I accept the fact that people can be better than me in some areas. If one is always outstanding than anyone else in any field, he/she can compete to be the president or a billionaire. One must have his/her own weakness and he/she should accept these weaknesses. Some people don’t like to accept their weaknesses. When they see the fact, they start to feel jealous and talk bad of other people (who are better than them).”

(*J*, MBA student, Male, 40, CSI T1 45-T2 34)

R and *F* also perceived themselves to be quite westernized due to their past work experience and therefore different from most Chinese people. *I* also shared a similar point and he claimed that it is associated with his family influence.

“I think myself as a combination between East and West. I have seen so many very Chinese types of Chinese people [in a certain and emphasising tone]. Typical Chinese refers to those Chinese can not fit in the food, chain behaviours and communication style here (in Britain). My way of interacting is very different from them (other Chinese).”

(*I*, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33).

I went on to explain the possible reasons for him to be different from other Chinese people.

“...maybe it is because the influence of Western culture from young. I love to watch Western movies and drama. I also get a lot of influence from my father. I am a combination and I hope I will always be a combination type of person. I don’t like the concept of nationality. That is why I can absorb Western essence and at the same time keep the good side of Chinese culture.”

(*I*, MA Advertising and Marketing student, Male, 21, CSI T1 43-T2 33)

Interestingly, when interviewees *J* and *I* described their perception of themselves, they always used ‘they’ to describe other Chinese. This was to emphasise the difference between themselves and their peer group. It seemed that they consider

themselves as an outsider rather than an insider. In Group 1, interviewees did not show this feature.

9.2.7 Summary

In summary, factors that may have influenced the change of cognitive style towards an intuitive mode of thinking are:

1. strong family support,
2. a positive perception of the British educational experience and a proactive reaction to it,
3. mixed social life with locals and Chinese,
4. a positive perception of the British way of life,
5. previous job experience which requires an analytical cognitive style, and
6. self-perception of being Westernised.

9.3 Characteristics of Group 3

9.3.1 Background Information and Past Western Experience

The interviewees with work experience wanted a change in environment while those without work experience wanted to become more competitive in the future job market. Some just wanted to fulfil their dreams of studying abroad; others were running away from broken relationships or boring jobs in China. A few were

influenced by their family's foreign experience and nearly half had first-hand past experience with foreigners. The latter found it quite normal to go abroad and did not feel excited or emotional at the departure. Going abroad is not something surprising for them, but a common and natural thing to do. This group had quite a lot of information or past experience of the West mainly as a result of family influence. Their CSI score did not change, as can be seen from C, P and Q's comments on their emotions at departure.

"I didn't feel very excited (to go abroad). This is not out of expectation and I already know how my life will be in Britain. I went to a fancy dress party at my relatives' friends' place. It was not a surprise for me. I knew their life should be like this...I think modern society is relatively more internationalised. Everyone will be more considerate and will compromise to each other. It should always be like this. I learned this from my parents and the foreign friends I met on MSN Messenger [an online chat network]. I felt globalisation is a very natural thing for me and I am quite used to it."

(P, MSc International Marketing Management student, Female, 23, CSI T1 40-T2 40)

"When I studied in the language school in China, I did feel the cultural differences, but I was ready for these differences because I had a Japanese boyfriend before in China. When I was with him, I was quite surprised to see the cultural differences. From then on, I was quite used to different cultures. I am a very calm person and my emotions are not that variable with things or situations. Maybe it is because of my family education...I didn't feel anything when I left home. In fact it is just the same feeling in England and when I was studying in the other city. The communication methods are the same, via telephone and internet."

(Q, MA Advertising and Marketing student, Female, 24, CSI T1 45-T2 45)

"When my parents were seeing me off at the airport, I didn't feel anything at all; it was just like taking a bus to somewhere else (in my city). I didn't feel excited or nervous because I had done enough research before and I know the situation in Britain. I didn't feel like I am going to somewhere unknown or unfamiliar... I had some foreign friends in my undergraduate course and we went to pubs in Guangzhou from time to time."

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

The interviewees from this group who showed no changes in CSI score were all from a wealthy middle to upper class, well-educated family. They also came from a one-child family and were quite used to the feeling of being on their own when they grew up. This self-managed experience is also closer to the Western culture.

“My family is middle-upper class. My mum works in the Bank of China and my dad works in a state-owned enterprise. Both of them influenced me a lot. My dad often goes abroad, so I have benefited a lot from his experience, in terms of being more open-minded. I am very used to the feeling of being on my own. I won't feel lonely and I actually need my own space because I grew up like this. My parents were too busy to accompany me when I was young.”

(P, MSc International Marketing Management student, Female, 23, CSI T1 40-T2 40)

“I don't feel lonely when I am on my own and I can make myself very busy, because my parents were too busy with their work when I was young. So I could cook my own food since primary school. My family is from a middle-upper class in China. My parents both worked for Chinese Petrol [a rich state-owned enterprise]. My dad is a manager and he often goes abroad. My mum is an accountant. I am used to make decisions myself because my parents, especially my dad, are very diplomatic and never force me to do anything.”

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

9.3.2 Perceived British Educational Experience

Interviewees in Group 3 were asked to describe their educational experience in Britain. Table 9.5 summarises their perception of the difference. Some of them overlap with replies from Group 1 and 2 (see Table 9.2 and 9.4). On the whole, interviewees in Group 3 showed a mixed perception of British education.

C perceived his educational experience in Britain is a familiar and expected experience.

“We had lectures and tutorials in China but no seminars. It is just my first time to use English for exams and assignment. There are not much educational differences between my university in China and Leeds University. However, my university doesn't represent the whole China. Teachers in my university didn't mind debating with students and critical thinking. We could communicate with our teacher in an equal position. A lot of my (Chinese) university teachers were sent abroad before for training and they had previous western experience, so they encouraged debates and new ideas. Even if they don't know the answer, they would tell the truth and go back to do more research.”

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

Table 9.5 Group 3's Perception of British Education

Perception of British Education	Respondents' Code
Reference	C
Massive amount of reading	Q
Learning style-rote	Q
Good Student involvement	P, Q
Teacher's encouragement of students involvement in class	Q
Critical thinking	P
Practical	Q
Flexible educational system	Q

C went on to comment that the education in Britain emphasises on reference.

"In Britain it is very important to offer a convincing argument with accurate references. This is different from China. Even those teachers who had been trained abroad, they still showed less integrity on the reference matter."

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

P also had positive view of the British education system.

"The education system here is more international and advanced. The Chinese education system is still quite undeveloped... Courses here are very interesting. At least everyone was listening to the lecture, not like my undergraduate time. People here joined the discussion during seminars and there were quite a lot creative ideas. This is good."

(P, MSc International Marketing Management student, Female, 23, CSI T1 40-T2 40)

She showed her indifferent attitude towards the degree she is studying for in England.

"I am not worried about exams because I don't care about the results. These results are only superficial and don't reflect one's capability. I don't care about my degree."

It is purely for future employers...I have learned to look at things from different angles and different perspectives. This is something I learn from Britain. We all come from different cultural background. There is no 100% right and wrong. I have realised this point from my teachers here and my understanding of daily life. People can hold completely different opinions and confront each other with opposite standpoints. I wouldn't judge that anyone is right or wrong in this situation. I would just think that culture is different and then I become more tolerant. For example, the Greek people are more aggressive than the Chinese. I don't feel any stress or pressure this year. I don't feel any excitement or arousal as well. I don't feel any achievement. I am always like this, stay neutral for everything. I think if I look back this experience in a few years time, I don't need to care too much anyway."

(P, MSc International Marketing Management student, Female, 23, CSI T1 40-T2 40)

Q observed many differences between Chinese and British education. She also showed her positive view of British education. Her language ability seemed always to be an obstacle during her educational experience.

"The educational system is different from China. Students can have gap years after their A Level. They also eat and drink during exam. This behaviour is impossible to exist in China. Books in China are too outdated. In Britain there is more recent information. Knowledge here are very useful and practical for work compared with Chinese. It took me time to get used to group work. The main problem is my English. Whenever the Greek, Irish and Indian group mates speak, I will be completely lost. I will then start to feel nervous. When I am nervous, I start smiling. I have this problem for group work and presentation. When I came to England, whenever I used English to speak, I started to feel stressed and lost...I seldom speak in the class mainly because of my language. Even though the teacher here encourage us to speak and they also show support for the student's original opinions. At the end of day, I am still a Chinese and was trained in the Chinese way. If I am not 100% sure, I will not say out my opinions."

(Q, MA Advertising and Marketing student, Female, 24, CSI T1 45-T2 45)

9.3.3 Social Life

Both C and Q spent a lot of time with local people. However, C enjoyed himself very much and showed confidence in his socialising life, while Q claimed that she was lost and nervous when she was with local people due to her language difficulties. P still kept her style of showing no interest in British people. C described his socialising life as follows.

“Apart from one dinner party with the Chinese friends, I mainly went out with Westerners to the pubs. I don’t mind the place, but the people... If I meet people from non-Western culture such as African or Indian, I don’t know what to talk to them... The trick to make friends with the British is that you need to be brave and engage them in a two-way conversation rather than one way communication.”

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

C also took initiatives to look for British friends and really enjoyed his social life with local people.

“I went to look for British students in the Chinese department. I also socialised with some local people I met when I worked as a waiter. I felt we are all similar. They found me funny and gave me a nickname of ‘Billy boy’. I don’t mind their custom of hugging so we have close relationship. Compared with half of the other Chinese classmates who prefer to sleep than go to the pub, I like to hang out in pubs. Maybe it is because I come from Guangzhou. Students from Beijing, Shanghai and Guangzhou are similar and like to go to pubs.”

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

Q also attempted to be proactive in assimilating with local people through religion.

“When I first arrived in Leeds, I really wanted to stay with British. It is simply for my English skills. Then I realised it is very difficult to find any English housemates...I spent about 40% of my time with English friends. I was also very proactive, I go to church, I have language exchange partner. Then I found people in the church are very friendly...I joined Mormons because I don’t drink and I seldom go to pubs. People in this religion also do not drink. A lot of British people enjoyed drinking too much and everyone wants to make themselves drunk when they drink. I found this Mormon religion interesting. There are not many opportunities to practise English here and I don’t have a lot of opportunities to interact with local people. I am afraid that my English will not improve within this year and I like to make friends. People in this religion are very friendly and easy-going.”

(Q, MA Advertising and Marketing student, Female, 24, CSI T1 45-T2 45)

P claimed herself to have no interest in British people and British culture.

“I have met some of my parents’ British friends before. I didn’t care too much of British culture or people because I come here to study only. I don’t care about this. It is difficult to make British friends and there is always a distance between us... I don’t want to speak too much with British people because we cannot really share anything deeper. It is quite boring to ask people where you come from and such banalities. My circle of friends is mainly Chinese. I seldom go out with my English classmates because I felt we can only stay in the superficial level. My purpose for going abroad was for a degree. I don’t want to pretend to enjoy socialising with them.”

(P, MSc International Marketing Management student, Female, 23, CSI T1 40-T2 40)

9.3.4 Perception of the British Way of Living

C held a neutral attitude towards both British and Chinese way of culture.

"I don't think I am very different from the British people. But I am quite a different case compared with other Chinese. I can adopt different styles to work with different types of people. Other Chinese people are definitely less open and more conservative. They like to hide their feelings. British people are more open and they will show their genuine opinion. People will not take those different opinions personally. The Chinese will worry whether they can still be friends after they show their genuine opinions. The British however do things slower and they have their reasons. You could say that the Chinese do things for efficiency and British people do it for quality."

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

He also felt that he himself fitted into the British way of life.

"Many Chinese students found difficulty with British food. I never felt that way. I am fine with cornflakes in the morning and pastas at night. I am very used to these foods. Actually rice is not really my favourite. My Chinese classmates found me amazing. Actually I used to live like this when I was in China. When my parents couldn't come home at night, I just go out and get myself food from KFC or Pizza Hut. I probably prefer Western food because of this. I don't know why because my parents didn't do it on purpose and anyway it is part of my habit now. I was very used to anything here when I first arrived including the weather as well...I also found the pub culture interesting because people dress up to go to the pubs. In Guangzhou it is very casual. This might be the only thing I found it different."

(C, MA Advertising and Marketing student, Male, 23, CSI T1 32-T2 32)

P also found her life convenient in Britain.

"I buy ready meals from supermarket only. I am used to eating sandwiches and salad when I was in China and so I like it. My mum is quiet Westernised because she is from Shanghai. Shanghainese are more Westernised and we have a lot of relatives abroad."

(P, MSc International Marketing Management student, Female, 23, CSI T1 40-T2 40)

She also perceived British society to be less stressful with simple relationships among people.

"There is not much pressure in the British society. Their relationship among people is relatively simple. Maybe it is because there is enough resources for them to live from. This is quite similar to Yangzhou (her hometown). Generally speaking, China is very competitive country because of the huge population and developing economics. I personally prefer life without much pressure."

(P, MSc International Marketing Management student, Female, 23, CSI T1 40-T2 40)

Q also perceived some cultural differences, but adopted a neutral stance.

“The Chinese do not make appointments and they do not stick to time etc. I felt the work efficiency in Britain is poor. There is not much competition and life pressure is low. Sometimes I found it strange to see British people not sticking to time.”
(Q, MA Advertising and Marketing student, Female, 24, CSI T1 45-T2 45)

She also told a story about how the British people express themselves so freely.

“I lived with one of the English teachers I met at a language school in China. One day we were watching the movie ‘The Full Monty’ together. My teacher is about my mum’s age and her comment for the film was that it is such a pity that we couldn’t see anything (naked).’ In China it is impossible for people of this age to speak like this. But this female English teacher speaks like this. What we chat to each other, she really said anything she wanted to. Her psychological age was similar to me.”
(Q, MA Advertising and Marketing student, Female, 24, CSI T1 45-T2 45)

Another perception of cultural difference between Britain and China is in their way of dealing with negative things.

“The British hate liars. They prefer you to stand up and tell the truth rather than lie. But the Chinese like to cover up mistakes like in the case of the SARS virus... Relationships among Chinese people are more complicated.”
(Q, MA Advertising and Marketing student, Female, 24, CSI T1 45-T2 45)

9.3.5 Previous Work Experience

Interviewees from Group 3 did not report any full time work experience. One (Q) out of three reported that she worked in a French Advertising company as part of a graduate placement programme for a short while. She described her work environment is very protective by her alumni friend and she had to work with French colleagues.

9.3.6 Perception of Self

As reported earlier in the section of 9.3.4, C did not perceive any cultural differences between himself and British nationals and he perceived himself to be quite flexible in his style of dealing with different nationals.

Q claimed that a friendly environment is very important for her and she explained that the friendly environment make her join the Mormons. She also commented herself different from other Chinese based on her British friends comment on her.

“...A friendly environment is very important for me. I grow up in a very protective environment with no pressures. People were very friendly. If the new environment does not offer this friendliness, I will feel stressed....My English friends consider me to be different from other Chinese people. They think that I am not a typical type of Chinese. I actually didn't realise this myself.”

(Q, MA Advertising and Marketing student, Female, 24, CSI T1 45-T2 45)

As mentioned earlier, P also shared Q's view that she prefers a less stressful environment and also emphasised that her family background is relatively westernised.

9.3.7 Summary

In summary, factors that may have prohibited the change of cognitive style are:

1. less uncertainty to Western culture ,
2. strong family influence to be more individualistic,
3. a positive perception of the British educational experience and a neutral reaction to it,

4. a proactive social life with locals,
5. a natural perception of the British way of life, and
6. self-perception of being Westernised,

9.4 Summary of Interview Findings

The interviews were designed to examine the details of how cognitive style changes under the light of acculturation experience. In the group which shifted towards a relatively analytical CSI direction, a number of points are worthy of mention. The first relates to their perception of an ‘analytical’ educational experience and a systematic British way of doing things. A second point related to the interviewees’ background such as the nature of their previous job and their strength of their family network. Their acculturative experience in Britain strengthened this to a certain degree. Finally, most of them who reported acculturation problems and stress decided the natural and necessary option was to go back to their familiar environment. Their experience under extra exposure with the Chinese culture seems to strengthen their original and familiar information processing and hence might result in ‘analytical’ changes in Cognitive Style Index score.

In the group who shifted towards a relatively intuitive style, the interviewees showed a different perception of the acculturative experience mentioned by the previous ‘analytical’ group. This ‘intuitive’ group perceived freedom and openness in British society and people rather than emphasising on the ‘systematic’ side of the British culture. Their previous job experience hinted at a requirement for greater rational

thinking and this original information processing style was not enforced in their acculturative experience. Their family background also offered them less independence than the 'analytical' group. Finally, their positive reaction to high stress appeared to be associated with an increase in self confidence. These feelings can result from academic achievement and the way they managed stressful situations.

Finally, the group who showed no changes in CSI demonstrated either a natural choice to go abroad and low arousal about going abroad. From the interviewees chosen, it appears that what may be important is how people perceive the information processing requirements that confront them. Because this group did not perceive any major difference in both Chinese and British culture, they did not perceive any need to change themselves.

CHAPTER 10

DISCUSSION AND CONCLUSIONS

This study investigates the malleability of cognitive style using a longitudinal research design to examine the effect of acculturation on the way individuals' process information. The cognitive style of 36 British students continuing the study in their own culture was measured at the beginning of their postgraduate course and again six months later. It was found that there has been no significant change in their cognitive style over this period. The experience of this sample was compared with that of 125 Chinese students who had travelled to Britain to study for a Master's degree alongside the aforementioned British students. The Chinese students showed significant changes in their cognitive style, suggesting that their acculturative experience had contributed to a change in the way they processed information. However, the pattern of change was not consistent within the Chinese sample and the overall direction of change was not in the anticipated direction. A further study was conducted in order to develop a deeper understanding of the factors that can affect the stability or other areas of cognitive style.

Throughout the thesis, there has been a continued endeavour to explain the selection of certain research methods, and during the course of the study to gather evidence through systematic procedures. The study has extended our knowledge by gaining some insight into the nature of cognitive style and some important contextual and individual differences variables that have been seen to influence the cognitive style.

A review of the literature found that there is a controversy regarding the malleability of cognitive style. Some researchers as detailed in Chapter 2 (Witkin *et al*, 1967; Cahill & Madigan, 1984; Zelniker, 1989; Miller, 1991) state that cognitive style is a stable deep-rooted personality variable, while others suggest that cognitive style can be shaped by factors such as age, job role and work environment, training specialisation, the culture of learning environment and the combination of acculturative experience and educational specialisation.

In this study, the effect of acculturative experience is the focus of the investigation. The first part of the study investigates the four hypothesis proposed in Chapter 5. The second part of the study contributes a number of research question designed to contribute to an understanding of why and how acculturation can lead to changes in cognitive style.

The chapter adopts a critical perspective on the methods employed, and attention is paid throughout to limitations of the research design that may have a bearing on the findings of present study, and concludes with an assessment of the implications of the study for the development of theory, contribution to research methodology, and the implications for management, training, and policy. Areas for further research are also identified.

10.1 Discussion

10.1.1 Study 1: Malleability of Cognitive Style

As discussed in Chapter 5.2, the first study is in three parts. The first examines the cultural difference between Chinese and British nationals. The second investigates changes in the cognitive style of the British and Chinese students over a six month period. The third monitors the effect of administering the Cognitive Style Index to the same participants on more than one occasion.

Hypothesis 1

Before investigating the malleability of cognitive style for cross-cultural travellers, it is important to establish a base line and whether there are any differences in the cognitive style of Chinese and British subjects. It was hypothesised in section 5.2.5 that there would be a difference between the cognitive style of Chinese and British subjects. This study supported the hypothesis. The Chinese subjects are relatively more analytical than their British counterparts. The results also showed that among male respondents the British are more intuitive than the Chinese.

This finding is consistent with Savvas *et al*'s (2001) findings using the Allinson-Hayes CSI to measure the dimension of Intuitive-Analytics and suggesting that British postgraduate students are more intuitive than Hong Kong professional development students. It also concurs with Bagley's findings on Japanese and

Chinese children using Witkin's CEFT to measure field-dependence-independence and suggesting that Chinese and Japanese children are more field-independence (analytic) than the British children. Even though some of this evidence in the literature was not gained through the comparison between Chinese and British, there were theories suggesting that they belong to similar cluster of subjects' culture (Hickson & Pugh, 1995).

The present study also produced secondary findings linked with gender difference. First, no significant differences were detected between the cognitive style of Chinese and British females. However, a difference was found between those of Chinese and British males with the Chinese males being relatively more analytical.

Secondly, Chinese females were found to be more intuitive than Chinese males while there was no significant difference between British males and females. This result does not correspond to Allinson and Hayes' (1996) finding that British females in general are consistently more analytical than British males. However, attention needs to be given to the relatively small British female sample size.

In conclusion, while there is support for the hypothesis that there is a difference in the cognitive style of the British and Chinese subjects. It was found that there was no significant difference between British and Chinese females.

Hypothesis 2 & 3

The primary purpose of the first study was to investigate whether cognitive style was malleable over time. This study involved a sample of Chinese students who travelled from China to Britain to pursue a postgraduate course. These cross cultural travellers experienced a fairly substantial disturbance of their original environment and it was anticipated that there could be important differences in the information processing requirements between their home and new host cultures. As hypothesised previously, individuals from China were expected to change their cognitive style within six months. On the other hand, the cognitive style of their British counterparts was expected to remain unchanged during the same period due to the stability of their environment. As hypothesised in section 5.2.5, there should be significant difference in the CSI scores of Chinese subjects between Time 1 and Time 2.

The main contribution of this research is to provide a more detailed investigation of the effect of acculturation on the malleability of cognitive style in an acculturation context than has been reported previously. The result of the study provided support for the hypothesis that cognitive style is malleable rather than stable between Time 1 (at the beginning of arrival) and Time 2 (six months later) for the Chinese subjects. The female Chinese students showed a significant shift after six months' stay in a British university. The results also supported the hypothesis that cognitive style remains stable over six months for the British groups of subjects. These findings suggest that the acculturation experience may have an influence on an individual's information processing.

The results also supported the earlier finding of Bagley (1988) that cognitive style is malleable under the certain circumstances of both training specialisation and acculturation experience. Bagley (1988) found that cognitive style is malleable when immigrant children travel between societies which have a different extent of the industrial development. By assuming that people from developed countries are more rational and analytical (field-independent) while those from developing countries are relatively intuitive (field-dependent), he argues that people moving from developing countries to developed countries adapt their cognitive style from intuitive to analytical. Bagley (1988, p157) argues that:

‘...both modernisation and formal schooling increase field-independent cognitive skills. The most advanced technological cultures will probably transmit to all children accepted into the mainstream of those culture (including children of migrant groups) skills in perceptual disembedding of such a high level that the traditional social correlations of field-independence observed by Witkin and his colleagues (1962) are likely to be replicated in modern society. Field-dependence is likely to remain, however, a useful measure in cross-cultural anthropology in studies of modernising and developing societies. Indeed, the development of field-independent cognitive skills may be used as one psychological indicator of modernisation.’

The result of this study challenged Witkin and co-authors’ (1967) view on relative stable cognitive style in adulthood. However the Wiktin’s longitudinal study reported that subjects who displayed no changes were involved in a relatively stable

environment. The result of this study also challenged Cahill and Madigan's (1984) argument that the learning curriculum has no effect on cognitive style.

The result also supported Kolb's argument that training could shape cognitive style. Both Chinese and British subjects underwent similar training and education; however British subjects did not change under the same education their Chinese counterparts received. This might be the result that British students are still in a fairly stable environment even with the education specialisation from the postgraduate studies. It is therefore understandable that their cognitive style remain stable in the stable environment. The Chinese students on the other hand perceived this education as a hugely different training process which then disturbs their original cognitive style.

Interestingly, the present study revealed that only members of the Chinese female group changed their cognitive styles significantly between Time 1 and Time 2. CSI scores for the Chinese male group showed no significant changes over the six month test/retest period. From an anthropological perspective, Witkin (1978) argued that the female experiences bigger difference in their roles when moving from a developing culture to a developed culture. It may be that Chinese females experience a bigger difference than Chinese males as a result of the demands of their previous culture. Hofstede (1994) argues that the stability of the Chinese society is based on unequal relationships between people. The *wu lun*, or five basic relationships are ruler-subject, father-son, older brother-younger brother, husband-wife, and senior friend-junior friend. These relationships contain mutual and complementary obligations such as the wife owing the husband respect and

obedience while the husband provides protection and consideration to the wife. The tolerance of the power distance between genders in a Western society might provide a more different acculturative experience for Chinese females which in turn influence their cognitive style.

In terms of the direction of change in cognitive style, the data showed that the CSI score of the Chinese group changed to become more analytic and more distant from their British peer group which was found to be more intuitive. The direction of the change in cognitive style in this present study contradicts Bagley's findings (1988). In Bagley's research on the acculturation of the children of Jamaican immigrants in Canada, he found that the Jamaican-born children changed to become more field-independent and similar to their Canadian-born peer groups. Bagley's explanation is the extent of the industrial development in a society could have influenced his Jamaican subjects who changed accordingly. He argues that more developed countries required people to have relatively more field-independent cognitive functioning. The discussion of Chinese females is presented in Section 10.1.2.

In conclusion, this study offers support for the proposition that acculturation has an important effect on cognitive style.

Hypothesis 4

As hypothesised, there were no difference between the Chinese experimental group and the relevant control group at Time 2. The former had been tested at Time 1 and the latter had not seen the CSI before. Results supported this hypothesis and revealed no significant difference. This suggests that there was no carry over effect from the CSI at Time 1 on the experimental group. It suggests that the data collected for experimental group are valid and reliable.

In conclusion, the findings of the first study suggest that cognitive style is malleable. However the findings regarding the direction of change raise a number of questions. For example, why was the overall direction of change in cognitive style not towards their peer indigenous group and why has the Chinese females' scores on Cognitive Style Index demonstrated a significant shift? These interesting findings and questions motivated the author to conduct a further study that involved a cross-sectional study and semi-structured interviews.

10.1.2 Study 2: Factors Influencing Cognitive Style

Prompted by the results from Phase I, Phase II of the present study focused on exploring factors associated with the acculturative process. As discussed in section 5.2, there are three potential areas relevant to this second study. They are motivational orientation, interaction effectiveness and stress level.

Motivational Orientation

The review of the literature led to a number of propositions regarding the factors associated with acculturation that might affect changes in cognitive style. The first of these was that there would be a positive correlation between the willingness to adapt to a new culture and the extent and directions of the change in cognitive style. Underlying this proposition is the assumption that those most willing to adapt to the new culture will change their cognitive style to be more similar to the cognitive style of equivalent members of the host culture (in the context of this study, British postgraduate students).

In Chapter 3 the term motivational orientation was used to describe an individual's attitude towards adapting to the new host culture. An individual might be motivated to assimilate with members of the host culture, integrate elements of their home and new host culture, separate themselves as much as possible from the host culture and maintain on strong attachment to their home culture or marginalize themselves when they are 'lost' and seek little attachment with either their home or new culture. Several factors that might affect motivational orientation are explored. These are reasons for going abroad, accommodation choices, socialising choice, predeparture training and past western experience.

Sample survey B showed that the Chinese female subjects without any previous Western experience showed a significant change in their CSI scores in the direction of an analytical cognitive style and subjects with past Western experience showed no changes in the CSI scores. The semi-structured interviews also showed that there

were a number of individuals who had previous British experience and also happened to belong to the group who showed changes toward the direction of intuitive cognitive style according to their individual CSI scores. Findings from both survey and interviews are consistent with the view, supported to some extent by research evidence that past Western experience helps in the acculturation process (Klineberg & Hull, 1979; Berry, 1980b; Church, 1982; Black *et al*, 1991; Parker & Mcevoy, 1993). Chinese students who have no past western experience changed their cognitive style more than their British peers and their Chinese peers who have western experience before. It is therefore possible to argue that direction of change in cognitive score could be the lack of past western experience among these participants. Those with least or no previous Western experience were motivated to separate themselves from the host culture and therefore any change in the cognitive style would be away from rather than towards the cognitive climate of the host culture.

Regarding pre-departure training, this study found that Chinese subjects without any pre-departure training showed a significant change in their CSI scores towards a more analytical style. The semi-structured interviews also showed that the individuals with predeparture training in language or culture showed more willingness to adapt to the British culture, as suggested by their social choices and their proactive attitude towards interacting with locals in the learning environment. These interviewees' cognitive style either showed no changes or changed towards a relatively intuitive cognitive style. Findings from both survey and interviews are consistent with arguments supported by evidence, that predeparture training helps the acculturation process (Brislin, 1981; Black, 1988; Goldstein & Smith, 1999;

Tsang, 2001) and refutes the contrary view (Nicholson & Inaitumi, 1993). Predeparture training has a positive correlation with extent of change and one possible explanation for the direction of change could be the lack of western knowledge of participants.

Regarding the subjects' accommodation choice, this study found that very few Chinese subjects actually lived with British nationals, and the low numbers prevent statistical analysis. There were no significant differences in cognitive style detected between the Chinese who lived with either Chinese or with mixed nationals. During the semi-structured interviews, the interviewees mentioned facing a common dilemma in respect of their accommodation choice: time constraints and the access of the resources were a hard reality for them to find the right accommodation. It seemed to be natural for them to go for convenience and security in an unfamiliar environment, and therefore leave it to the university's accommodation office to assign them in a university dormitory. Due to the increase in Chinese student numbers applying and obtaining university accommodation, the majority of the respondents ended up staying with other Chinese or international students not through choice but by default. In these special circumstances, it is difficult to detect the participants' willingness to adapt to the British culture since such issues were out of their control as a newcomer in the country.

Regarding socialising choice, the survey results indicated that the Chinese female subjects who socialised with British nationals showed a significant change in CSI scores towards a more analytical style (that is away from rather than towards the cognitive style of their British peer group). However, data about the cognitive style

of these individuals that they socialised with is not available. It is possible that they chose to socialise with British students who were more like them, i.e. with those who had an analytical cognitive style. Evidence from the semi-structured interviews, however, seemed to be mixed and contradicted findings of the sample survey. Participants who socialised with locals showed either no change in cognitive style or they became more intuitive.

In terms of reasons to go abroad, there appear to be two motivational effects: 'push' and 'pull.' It could be argued that people who proactively go to the West would be expected to become similar to their host nationals. The opposite might be expected from those who were reluctant cross-cultural travellers and 'pushed' to study in Britain. For some interviewees, going abroad is considered a natural thing to do due to their family influence. Their cognitive style showed no changes. However, there were no other patterns of change associated with the motivation to study abroad.

In conclusion, the individual's attitude towards acculturation is important for his or her proactive attitude and reaction towards the perceived environment. No previous Western experience or pre-departure training appears to be connected with a change the cognitive style towards analytical. However, socialising with British nationals seemed to have mixed effects on cognitive style. It is not clear why the female Chinese who socialise with British nationals become more analytical. The extent and direction of change might be influenced by the cognitive style of those British nationals with whom they socialise or by their experience of difficulties when interacting with locals. Data from the interviews offer some support for the propositions that motivational orientation influence the direction of change in

cognitive style. Members of Group 2 (who changed to become more intuitive) had positive attitudes towards British education and the British way of life and expressed regret that they had not been able to interact more with members of the host culture. This topic of research would be interesting to investigate further, but is beyond the scope of the present study.

Interaction Effectiveness

The second proposition was that there would be a relationship between interaction effectiveness and the extent and direction of change in the Chinese students' cognitive style. It was anticipated that the more effective the interaction is, the more cognitive style would change in the direction of the cognitive style of the British peer group. The investigation of interaction effectiveness was conducted using both survey and interviews methods to gain information not only on the extent of interaction, but also on the quality of interaction with British education and culture.

In terms of interaction effectiveness, sample survey B found that Chinese subjects showed a significantly higher difficulty with interaction than their British peers. However there was no evidence of a link between interaction effectiveness and either the extent or direction of change in cognitive style. Even though no correlation between interaction effectiveness and a change of cognitive style was detected, the significant interaction difficulty claimed by the Chinese subjects in the interviews implies that the Chinese and British had different experiences during the six months period. This result is consistent with previous evidence to support the

idea of a positive correlation between cultural difference and interaction effectiveness. The more distant the culture is from the host culture, the more difficulties the individual will experience (Furnham & Bochner, 1982; Ward & Kennedy, 1999).

In terms of the extent of interaction with British nationals socially and academically, the result from the semi-structured interview indicated that those who changed toward an analytical style were heavily exposed to their Chinese peers in their social life and Chinese culture in their academic environment. Those who changed toward an intuitive style were found to have relatively mixed interactions with both Chinese and locals in both their social life and academic life and most of them claimed to regret not being able to interact more with local people. Of those with no changes in cognitive style, two interviewees out of three were proactively looking (without success) for opportunities to interact with British or other Western nationals. The findings from the survey and the interviews showed that it was very difficult for the Chinese subjects to make local friends.

In conclusion, evidence suggests that interaction effectiveness may be a factor in relation to the extent and direction of changes in cognitive style. While the sample survey failed to demonstrate any clear relationship between changes in cognitive style and interaction difficulty, the interview data pointed to possible relationships.

Level of Stress

The third proposition is that the level of stress may be related to the extent and direction of changes in cognitive style. The investigation of stress was conducted using both survey and interviews methods to explore the participants' experience of stress and their reaction towards stress.

Sample survey B showed that Chinese subjects demonstrated significantly higher levels of stress than their British peers. However, the survey found no correlations between stress level and change of cognitive style. Nonetheless the significantly higher stress level claimed by the Chinese subjects signalled that Chinese and British had a different psychological experience during the first six months of their postgraduate studies. This result is consistent with some researchers' argument or field evidence that the positive correlation between uncertainty/cultural distance and stress level. The higher the uncertainty or lower the knowledge of the host culture, the higher stress the individual will experience (Berry 1976; 1997).

In the follow-up semi-structured interviews, the results showed a more complicated and rather mixed picture of the reaction of the Chinese subjects towards the stress they experienced during the first six months. The stress resulted from several factors: the uncertainty of the host culture, the cultural difference between British and Chinese societies, the language proficiency for communication and interaction with host nationals in both social and academic environment, destabilised family relationship, and the lack of support and friendship in both education and daily

experience in an unfamiliar country. The highest stress was claimed during the first examination periods.

Some interesting differences in the way participants reacted to stress were detected. Interviewees in the group which changed toward a more analytical in their cognitive style were highly exposed to Chinese culture and compatriots and claimed that they sought their contact and friendship to ease their acculturative stress. This finding corresponds to Berry's (1997) argument on acculturative stress and acculturation mode, i.e. both 'separators' and 'assimilators' experience high stress. The finding is also consistent with Ward *et al*'s (2001) discussion that sojourners might go back to somewhere familiar to find comfort, interact and information. Further study might investigate further whether the subjects' original information processing was re-enforced and strengthened by this reaction to stress. This finding might also be linked to the argument advocated by Black *et al* (1991) that individuals tend to use a rational cognitive style when facing arousal and surprise, again pointing to an interesting direction for further researches.

In conclusion, while this study failed to identify any clear relationship between stress level and the direction and extent of changes in cognitive style, the results do point to possible avenues for further research.

Perception of the Host Culture

It is clear from the semi-structured interviews that there are important differences in the way in which individual Chinese students perceive their experience of living and studying in Britain.

The group which changes towards an analytical cognitive style observed a relatively systematic British society and educational experience that was in many ways similar to their experience of education in China. On the other hand in the group which changed toward an intuitive cognitive style, the majority of interviewees perceived the British educational system to be very different from the Chinese educational systems, and as the whole showed a positive attitude towards the British systems. The group which showed no changes in their cognitive style were relatively neutral towards British education and culture.

An area for further research might be how perceptions of the host culture affect changes in cognitive style. Individuals may well adjust their cognitive style in line with their perception of the information processing requirements of the host culture. This probably is supported by Witkin *et al* (1967) who argued that cognitive style is a reflection of how people perceive the world and self.

10.2 Conclusions

Evidence that malleability in cognitive style may be an important factor in both industrial and educational context began to emerge within educational context more than a few decades ago. There are differences of opinion regarding cognitive style and malleability. The conventional argument is that style is a fixed trait (Witkin *et al*, 1967; Cahill & Madigan, 1984; Zelniker, 1989). There is however, some evidence that style can be shaped by certain factors. These factors include age (Kagan *et al*, 1964; Kagan & Kogan, 1970), educational specialisation (Kolb, 2001), the professional career choice (Kolb, 2001), current job role (Kolb, 2001), work situations (Agor, 1986; Allinson & Hayes, 1996), and the combination of acculturation experience and education specialisation (Bagley, 1988).

Despite the efforts of researchers over the past 30 years, the malleability of cognitive style has remained a controversial subject. In fact, evidence has been inconsistent and contradictory. Studies on malleability of cognitive style have remained with children samples (Witkin, 1976; Bagley, 1988). Furthermore there has been a dearth of studies examining the malleability of cognitive style hypothesis in relation to acculturative process. These were some of the main driving forces behind the research reported in this thesis.

The contribution of this study is to be able to follow a large adult sample of same country nationals moving into another culture. The initial hypothesis was that the Chinese would become more like their British peer group during this acculturative experience. However, results showed that more attention needs to be given to this

area of acculturation. Differences were noted between home and Chinese students and a further administration of the CSI after six months period showed a significant shift for Chinese students but not for home students. However, the pattern of change was not consistent within the Chinese sample and overall change was not in the anticipated direction. This is also consistent with the findings of another recent study that revealed a significant shift for British students who study an undergraduate course in a Chinese university in China and the direction of change is again away from the host nationals, that is, British students' cognitive style changed toward an 'intuitive' direction (Zhang, Allinson & Hayes, in progress).

This study has also yielded a large amount of useful information regarding the Chinese population studying and living for a Master's course in a British university. The questionnaire survey investigated the social experience, stress level and the information-processing styles of the students. Using the British students as a benchmark, significant differences between British and Chinese students were identified. The results suggest that the overseas students experienced great difficulties and stress during the postgraduate course and in coping with the British culture. Despite this, interaction effectiveness and level of acculturative stress were not found to be correlated with cognitive style in the sample survey, results from interviews do point to possible avenues for further research. Results also indicated that past Western experience, pre-departure training and socialising with home nationals from motivational orientation were associated with the change of cognitive style. A more fruitful area of future research would be how people perceive the world and culture.

10.2.1 Implications

The outcome of this research would be of interest to those who work in the field of organisational and educational psychology. Cognitive style, in itself, appears to be relatively malleable, and this finding has significant implications for industry and education. A number of recommendations can be made concerning these two populations.

10.2.1.1 Implication for Industry

The findings reported in this thesis make an important contribution to the literature on training and development. As discussed earlier, until now, there has been no large sample empirical evidence in the design of longitudinal studies to support this link between cognitive style and acculturation in adulthood.

Results from the present study shed light on creating an adaptable organisation. Reasons for developing a learning organisation arise due to technological revolutions, foreign competition, globalisation, environment concerns and rapidly changing consumer demands (Jackson, 2002). A learning culture will motivate workforce to develop their effectiveness by observing themselves and environment. This does not only apply to expatriates, but also to the whole workforce. Identifying individual's cognitive style and providing development plans will help ensure the establishment of a learning culture for the organisations.

Another implication of the present findings relates to individual job performance. Research evidence report that it is more effective when people's cognitive style is aligned with job environment (Hayes & Allinson, 1998). For individual to be aware of their own cognitive style and how to change it, it will help with their interaction with their supervisors (Armstrong, 1999).

The results of the present study have clear implications for employee training and development. Since culture plays an important role in cognitive style, different types of organisational culture affect people in different ways. One interpretation of the present evidence has been that cognitive style is malleable. It is therefore clear that it is possible to train expatriates from industry to adapt better in a new culture during their international assignments. Black *et al* (1991) claimed that the high returning rate from expatriate employees exposes companies to unnecessary financial loss from international assignments. Companies and organisations can also provide packaged programme to support their expatriate staff by knowing the details of the acculturation experience, such as making them aware of the host culture. Several factors were found to influence cognitive style and the success of adaptation were identified and discussed.

The finding of the malleability of cognitive style also provides evidence for companies and organisations to select optimal development programme with learning-environment matches. Robbins (2001) argues that it is beneficial to design training programme to fit the employee's learning style. Training can be designed for employees to adopt a specific cognitive style for specific demand of situations.

Some researchers reported that senior staffs tend to be more intuitive than their junior counterparts. It is recommended that training can be provided for leadership. Training can also be provided to improve supervisor-subordinate interactions. (Armstrong, 1999) found that assigning analytic subordinates to intuitive supervisors may create relatively warm, amiable relationships while the least desirable arrangement may be for intuitive subordinates and analytic supervisors. Since this study revealed that cognitive style is malleable, it is therefore possible to train supervisors to adopt a flexible style to deal with different type of subordinates. On the other hand, subordinates can also be trained to suit their supervisors' style.

The present findings also have significant implications for recruitment and selection. To guarantee an optimal percentage of successful international assignment, companies and organisations could recruit individuals who demonstrated certain traits for being able to fulfil the task (Jackson, 2002). For example, the present study revealed that previous Western experience and a proactive attitude towards the host culture would help the acculturation process. It is therefore logical to suggest that organisations can recruit individuals with these particular experiences for the challenging international assignments.

10.2.1.2 Implication for Education

Findings also make important contributions to the field of literature concerning success and completion rates of international assignment and education in general.

The findings of the present study have significant implications for international students who pursue an academic degree in western country. Identifying several variables which are associated with cognitive style, training could be provided to improve their educational and acculturative experience ultimately to help them to adapt. By increasing the awareness of the requirement of the environment, it will help international students to adapt their cognitive style to the new setting in order to improve the educational experience. Based on the findings of cross-cultural difference among British, Egyptian and Hong Kong postgraduate students, Savvas *et al* (2001, p71) suggest the following advices. Firstly, different national groups need to be aware of their own styles and those of other managers with whom they will come into contact. Secondly, different national groups need to be aware of the impact of style differences and the ways in which these may manifest themselves in educational and training context.

The findings also have significant implications for teachers, teaching environment, and the host organisations or institutions. The findings from this study also make an important contribution to literature concerning international students' perception of British education and their reaction towards it. Teachers in both China and Britain can compare their strengths and weaknesses, and increase awareness in teaching in a multicultural environment. Savvas *et al* (2001, p71) suggest that individuals of different national groups in training settings may utilise the strengths of others in the group in order that a balanced and harmonious approach to a task may be achieved. Allinson and Hayes (2000, p168) suggest that experiential trainee-centred activities may be anathema to those with an analytic orientation and there are evidence

showing that matching the cognitive style of trainees with the training programme enhances learning outcomes (Hayes & Allinson, 1996).

Given that the majority of postgraduate students are from overseas, especially from South East Asian countries, it would be beneficial for British educational institutions to create a more multicultural-friendly and interactive environment for their students, in order for them to enjoy and benefit from their educational experience. British universities should design and provide adequate training for academic and administrative staff to equip them with not only knowledge, but also to increase the awareness of the challenges international students face. Counselling services should be more approachable, and more subtle in their provision since in certain cultures, seeing a counsellor infers mental illness. A friendly and open host culture will bring tremendous and long-term benefits for the host university.

10.2.2 Limitations and Recommendations for Future Research

The present study has sought to determine whether cognitive style is malleable and to explore what factors affect cognitive style. The methodological choices enabling thorough investigation of the phenomena also presented some limitations. It is therefore important to mention these potential limits in order to establish the degree of confidence with which conclusions have drawn.

First, the risks involved in generalising from a sample of only 125 Chinese and 36 British nationals to the universe of cross-cultural travellers and host counterparts

need to be recognised. Subjects were chosen from one university in the north of Britain. Although they are arguable similar in many respects to other cross-cultural travellers and home students in Britain, it does nevertheless constitute a sample of only one, and inevitably possesses certain unique characteristics. In particular, it is accepted that the Chinese samples of the present sample could be distinguished according to a variety of criteria other than culture. The intention here is to focus on findings which, on theoretical grounds, may be attributable to cultural characteristics, and which might be expected to apply to other Chinese cross-cultural travellers and British nationals in general.

Second, in order to collect data from suitably large samples with appropriate controls, a student sample was chosen. This was selected not only for convenience, but also because it presented an opportunity to obtain a credible number of responses to the survey questionnaire within the required time frame and quasi-experimental environment of the research. Even though many researchers argue that student samples are as good as a managerial sample (Berry, 1991), and could produce more homogeneous groups and better balanced samples (Locke, 1986; Abramson *et al*, 1993), future research would benefit from large-scale longitudinal studies on expatriates in work settings involving appropriate control of the environment.

Third, the disproportional of sampling fractions within each national sample needs to be acknowledged. It is recognised that the subsample sizes for each national category did not reflect exactly the gender composition of the nationals. In the present study, the subsample size of different gender in British nationals did not

achieve minimum size of 30 (Roscoe, 1975). It is suggested that this needs to be borne in mind in the interpretation and generalisation of results in the study.

Longitudinal research design in the present research has a few disadvantages. How to motivate subjects to get involved through repeated measures in order to maintain high completion rate remains problematic. Apart from maximising the first contact rate, Taris (2000) suggests two basic ways of reducing refusal rates: increased participants' perceived rewards and decreased participants perceived costs. In this study, both authority and money incentives were involved at Time 2. This technique helped reduce refusal rate by offering the signal that participants' involvement is important since it is organised by the authority, and that their participation costs will also be met by large lottery money. However, attention still needs to be given to the sample size to generalise the results to a universe of population.

Planning is also very important for longitudinal study since timing plays an important role in this type of research design. In the present study, some data could have been collected at Time 1 such as motivational orientation, interaction effectiveness, acculturative stress and perception of British culture. This could have generated more data of the acculturation process and compare them with the change of cognitive style. If interviews could be conducted earlier to collect data at Time 1, it could have avoided using reminiscing method which is adopted in Phase II study. Future research is recommended to carry out during the process of acculturation. However, researchers need to be borne in mind that this simultaneous research design might result in the subjects' awareness of research and disturb the original

natural environment for quasi-experimental design which in turn might influence the reliability of the data.

Finally, it is appreciated that many of the correlation coefficients computed in the analysis in Chapter 6 and 8 might merely mean that the measurement situation is contaminated by some factors uncontrolled or not held constant (Gilford, 1965).

These sample weaknesses must, however, be placed in perspective. With regard to the sampling of organisations and nationalities, it should be borne in mind that the study was conducted by only one investigator with limited resources and time constraints. On the grounds of access and cost, the sampling of university postgraduate students and only one university from one locality was inevitable for the more controlled longitudinal study. With regard to the sampling of national subjects, the disproportionate sampling across gender and national could not be avoided, for the reasons given earlier. Thus there was little alternative to the sampling method employed in the study. It is argued that there is no perfect research in this world. It is better to conduct research with a limited sample, as long as the researcher is aware of the limitations, than not to carry out research at all. In the current investigation, while results could be justifiably generalised only to the Chinese and British nationals who participated, insights obtained may be a suitable basis for hypothesising valid generalisations to other cross-cultural travellers as a whole.

This research investigates the malleability of cognitive style through acculturative experience and appears to have made an incremental contribution toward furthering

our understanding of these complex phenomena through a relatively large-sample and controlled longitudinal survey with adults. A similar research design but with more exposure to different kinds of training programmes (specially designed to bring out a change in style) would make a potentially valuable contribution to strengthen the perennial debate over whether cognitive style is malleable or fixed by giving it a broader scope. It is hoped that this finding may now pave the way for further research leading to a more complete understanding of the issues of both cognitive style and acculturation. It is also believed that future study would benefit from large-scale longitudinal studies involving longer periods. A more controlled longitudinal study involving larger samples from different cultural backgrounds, and exposed to different kinds of culture, would potentially make a valuable contribution to the debate over the malleability of cognitive style.

CHAPTER 11

BIBLIOGRAPHY

Abramson, N. R., Lane, H. W. & Takagi, H. (1993). A comparison of Canadian and Japanese cognitive styles: implications for management interaction. *Journal of International Business Studies*, 24, 3, 575-587.

Abramson, N. R., Keating, R. J. & Lane, H. W. (1996). Cross-national cognitive process differences: a comparison of Canadian, American and Japanese managers. *Management International Review*, 36, 2, 123-147.

Adler, P. S. (1975). The transitional experience: An alternative view of 'culture shock'. *Journal of Humanistic Psychology*, 15, 13-23.

Ady, J. C. (1995). Toward a differential demand model of sojourner adjustment. In R. L. Wiseman (Ed.) *Intercultural Communication Theory*, 92-114. London: Sage.

Agor, W. H. (1986). *The Logic of Intuitive Decision Making: A Research-based Approach for Top Management*. New York: Quorum Books.

Agor, W. H. (1989). *Intuition in Organizations: Leading and Managing Productively*. Sage Publications.

Allinson, C. W. & Hayes, J. (1990). Validity of the Learning Styles Questionnaire. *Psychological Reports*, 67, 859-66.

Allinson, C. W. & Hayes, J. (1994). Cognitive style and its relevance for management practice. *British Journal of Management*, 5, 1, 53-72.

Allinson, C. W. & Hayes, J. (1996). The Cognitive Style Index: A measure of intuition-analysis for organizational research. *Journal of Management Studies*, 33, 1, 119-135.

Allinson, C. W. & Hayes, J. (1998). Cognitive style and the theory and practice of individual and collective learning in organizations. *Human Relations*, 51, 7, 847-872.

Allinson, C. W. & Hayes, J. (2000). Cross-national differences in cognitive style: implications for management. *International Journal of Human Resource Management*, 11, 1, 161-170.

Allinson, C. W., Armstrong, S. J. & Hayes, J. (2001). The effects of cognitive style on leader-member exchange: A study manager-subordinate dyads. *Journal of Occupational and Organizational Psychology*, 74, 201-220.

Allport, G. W. & Vernon, P. E. (1933). *Studies in Expressive Movement*. New York: Macmillan.

Allport, G. W. (1937). *Personality: A Psychological Interpretation*. New York: Holt, Rinehart & Winston.

Al-Sharideh, K. & Goe, R.W. (1998). Ethnic communities within the university: An examination of factors influencing the personal adjustment of international students. *Research in Higher Education*, 39, 699-725.

Armstrong, S., Allinson, C. W. & Hayes, J. (1997). The implications of cognitive style for management of student-supervisor relationships. *Educational Psychology*, 17, 1&2, 209-217.

Armstrong, S. (1999). *Cognitive Style and Dyadic Interaction: A Study of Supervisors and Subordinates engaged in Working Relationships*. Unpublished Doctoral Thesis, University of Leeds, UK.

- Atkinson, G. (1988). Reliability of the Learning Style Inventory. *Psychological Reports*, 62, 755-68.
- Aycan, Z. (1997). Acculturation of expatriate managers: A process model of adjustment and performance. In Z. Aycan (Ed.) *New Approaches to Employee Management*, 4. Greenwich: JAI Press.
- Baker, J. C. & Ivancevich, J. M. (1971). The assignment of American executives abroad: Systematic, haphazard, or chaotic? *California Management Review*, 13, 3, 39-44.
- Bagley, C. (1988). Cognitive style and cultural adaptation in Blackfoot, Japanese, Jamaican, Italian and Anglo-Celtic Children in Canada. In G. Verma & C. Bagley (Eds.) *Cross-cultural Studies of Personality, Attitudes and Cognition*, 143-159. Macmillan Press.
- Banta, T. J. (1970). Tests for evaluation of early childhood education: The Cincinnati Autonomy Test Battery (CATB). In J. Hellmuth (Ed.) *Cognitive Studies*, 1. New York: Burnner-Mazel.
- Barker-Lunn, J. C. (1970). *Streaming in the Primary School*. Slough, NFER.
- Bauman, G. (1951). The stability of the individual's made of perception and of perception-personality relationships. Unpublished Doctoral dissertation, New York University.
- Bayne, R. (1994). The 'Big Five' versus the Myers-Briggs. *The Psychologist*, 7, 1, 1.
- Beck, A. T., Rush, A. J., Shaw, B. F. & Emery, G. (1979). *Cognitive Therapy of Depression*. New York: Guilford Press.

- Behling, W., Gifford, W. E. & Tolliver, J. M. (1980). Effects of grouping information on decision making under risk. *Decision Sciences*, 11, 272-283.
- Beiser, M., Barwick, C., Berry, J. W., da Costa, G., Fantino, A. Ganesan, S., Lee, C., Milne, W., Naidoo, J., Prince, R., Tousignant, M. & Vela, E. (1988). *Mental Health Issues Affecting Immigrants and Refugees*. Ottawa: Health and Welfare Canada.
- Beller, E. K. (1967). *Methods of Language Training and Cognitive Styles in Lower Class Children*. Paper presented at the meeting of the American Educational Research Association, New York, February.
- Berger, C. R. & Calabrese, R. (1975). Some explorations in initial interactions and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1, 99-112.
- Berry, J. W. (1970). Marginality, stress, and identification in an acculturating aboriginal community. *Journal of cross-Cultural Psychology*, 1, 129-52.
- Berry, J. W. (1974). Psychological aspects of cultural pluralism. *Topics in Culture Learning*, 2, 17-22.
- Berry, J. W. (1976). *Human Ecology and Cognitive Style: Comparative Studies in Cultural and Psychological Adaptation*. New York: Sage/Halsted.
- Berry, J. W. (1980a). Acculturation as varieties of adaptation. In A. Padilla (Ed.) *Acculturation: Theory, Models and Some New Findings*, 9-25. Boulder, CO: Westview.
- Berry, J. W. (1980b). Social and cultural change. In H. C. Triandis & R. Brislin (Eds.) *Handbook of Cross-cultural Psychology*, 211-279. Boston, MA: Allyn & Bacon.

Berry, J. W. (1984). Cultural relations in plural societies. In N. Miller & M. Brewer (Eds.) *Groups in Contact*, 11-27. San Diego: Academic Press.

Berry, J. W. (1994). Acculturation and psychological adaptation. In A. M. Bouvy, F. J. R. Van de Vijver, P. Boski & P. Schmitz (Eds.) *Journeys into Cross-Cultural Psychology*, 129-141. Lisse, The Netherlands: Swets & Zeiglinger.

Berry, J. W. (1997). Immigration, acculturation and adaptation. *Applied Psychology: An International Review*, 46, 5-68.

Berry, J. W. & Kim, U. (1988). Acculturation and mental health. In P. Dasen, J. W. Berry & N. Sartorius (Eds.) *Cross-Cultural Psychology and Health: Towards Applications*, 207-236. London: Sage.

Berry, J. W., Kim, U., Power, S., Young, M. & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology: An International Review*, 38, 2, 185-206.

Black, J. S. (1988). Work role transitions: A study of American expatriate managers in Japan. *Journal of international Business Studies*, 19, 533-546.

Black, J. S., Mendenhall, M. & Oddou, G. (1991). Toward a comprehensive model of international adjustment: An integration of multiple theoretical perspectives. *Academy of Management Review*, 16, 2, 291-317.

Bochner, S., McLeod, B. & Lin, A. (1977). Friendship patterns of overseas students: A functional model. *International Journal of Psychology*, 12, 277-297.

Bochner, S. (1982). The social psychology of cross-cultural relations. In S. Bochner, (Ed.) *Cultures in Contact: Studies in Cross-Cultural Interaction*, 5-44, Oxford: Pergamon.

Bochner, S. (1986). Coping with unfamiliar cultures: adjustment or cultural learning? *Australian Journal of Psychology*, 38, 347-358.

Bond, M. H. (1996). *The Handbook of Chinese Psychology*. Hong Kong, Oxford University Press.

Boski, P. (1990). Correlative national self-identity of Polish immigrants in Canada and the United States. In N. Bleichrodt & P. J. D. Drenth (Eds.) *Contemporary Issues in Cross-cultural Psychology*, 207-216. Lisse, The Netherlands: Swets & Zeitlinger.

Boyle, G. J. (1995). Myers-Briggs Type Indicator (MBTI): Some psychometric limitations. *Australian Psychologist*, 30, 1, 71-74.

Bracken, B. A. & McCallum, R. S. (2001). Assessing intelligence in a population that speaks more than two hundred languages: A nonverbal solution. In L. A. Suzuki, J. G. Ponterotto & P. J. Meller (Eds.) *Handbook of Multicultural Assessment: Clinical, Psychological, and Educational Applications* (3rd Ed.), 405–431. San Francisco, CA: Jossey-Bass/ Pfeiffer.

Branine, M. (1996). Observations on training and management development in the People's Republic of China. *Personnel Review*, 25, 1, 25-39.

Brein, M. & David, K. (1971). Intercultural communication and the adjustment of the sojourner. *Psychological Bulletin*, 76, 2 15-230.

Brislin, R. W. (1981). *Cross-cultural Encounters*. New York: Pergamon.

Brislin, R. W. (2000). *Understanding Culture's Influence on Behavior* (2nd Ed.) Thomson Learning Inc.

Brink, P. J. & Saunders, J. A. (1976). Culture shock: theoretical and applied. In P. J. Brink (Ed.) *Transcultural Nursing: A Book of Readings*. Englewood Cliffs, NJ: Prentice-Hall.

Burrell, K. I. & Kim, D. J. (1997). International students and academic assistance: meeting the needs of another college population. *Developmental Education: Meeting Diverse Student Needs*, 81-96.

Byrne, D. (1969). Attitudes and attraction. In L. Berkowitz (Ed.) *Advances in Experimental Social Psychology*, 4, 35-89. New York: Academic Press.

Cahill, R. & Madigan, M. J. (1984). The influence of curriculum format on learning preference and learning style. *The American Journal of Occupational Therapy*, 38, 683-686.

Campbell, B. J. (1991). Planning for a student learning style. *Journal of Education for Business*, Jul, 356.

Campbell, J. P. & Stanley, J. C. (1963). *Experimental and Quasi-Experimental Designs for Research*. Rand McNally, Chicago, Ill.

Carballo, M. (1994). *Scientific Consultation on the Social and Health Impact of Migration: Priorities for Research*. Geneva: International Organization for Migration.

Carme, G. C. & Kirton, M. J. (1982). Style of creativity: test score correlations between Kirton Adaptation-Innovation Inventory and Myers Briggs Type Indicator. *Psychological Reports*, 50, 31-36.

Cassidy, S. (2004). Learning styles: an overview of theories, models, and measures. *Educational Psychology*, 24, 4, August, 419-444.

Chan, D. W. & Chan, T. S. C. (1983). Reliability, validity and the structure of the General Health Questionnaire in a Chinese context. *Psychological Medicine*, 13, 363-371.

Chang, W. C. (1985). A cross-cultural study of depressive symptomology. *Culture Medicine and Psychiatry*, 9, 295-317.

Cheung, F. M. (1996). The assessment of psychopathology in Chinese societies. In M. H. Bond (Ed.) *The Handbook of Chinese Psychology*, 393-411. Hong Kong Oxford University Press.

Church, A. T. (1982). Sojourner adjustment. *Psychological Bulletin*, 91, 540-572.

Claxton, S. & Ralston, Y. (1978). Learning styles. In C. S. Claxton & Y. Ralston (Eds.) *Learning Styles: Their Impact on Teaching and Administration*. Washington, DC, American Association for Higher Education (Higher Education Report, No. 10).

Coffield, F., Moseley, D., Hall, E. & Ecclestone, K. (2004). *Learning Styles and Pedagogy in Post-16 Learning: A Systematic and Critical Review*. Learning & Skills Research Centre.

Collier, C. (2004). *Handbook of Multicultural School Psychology*.

Copeland, L. & Griggs, L. (1985). *Going International*. New York: Random House.

Cort, D. A. & King, M. (1979). Some correlates of culture shock among American tourists in Africa. *International Journal of Intercultural Relations*, 3, 211-225.

Covington, M., Crutchfield, R., Davies, L. & Olton, R. (1974). *The productive Thinking Program: A Course in Learning to Think*. Columbus, Merrill.

Crabtree, B. F. & Miller, W. L. (1992). *Doing Qualitative Research*. London: Sage.

Crano, S. L. & Crano, W. D. (1993). A measure of adjustment strain in international students. *Journal of Cross-cultural Psychology*, 24, 267-283.

Creswell, J. W. (2003). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (2nd Ed.). Sage Publications.

Cronbach, L. J. & Snow, R. E. (1977). *Aptitudes and Instructional Methods*. New York: Wiley.

Crutchfield, R. S. (1965). Creativity thinking in children: Its teaching and testing. In O. G., Brun, R. S., Crutchfield & W. H., Holtzman (Eds.) *Intelligence Perspectives 1965: The Terman-Otis Memorial Lectures*. New York, Harcourt, Brace & World.

Cuellar, I. Arnold, B. & Maldonada, R. (1995). Acculturation rating scale for Mexican Americans-II: A revision of the original ARMSA scale. *Hispanic Journal of Behavioral Science*, 17, 275-304.

Curry, L. (1983). *Learning Styles in Continuing Medical Education*. Ottawa, Canadian Medical association.

Curry, L. (1987). *Integrating Concepts of Cognitive Learning Styles: A Review with Attention to Psychometric Standards*. Ottawa, Canadian College of Health Services Executives.

Damji, T., Clement, R. & Noels, K. A. (1996). Acculturation mode, identity variation, and English Proficiency 21 psychosocial adjustment. *The Journal of Social Psychology*, 136, 493

Dane, L. F. (1981). The use of the paraprofessional for treatment of Americans abroad: A survey of theory and practice. In S. Bochner (Ed.) *The Mediating Person: Bridges between Cultures*, 169-183. Cambridge, MA: Schenkman.

de Bello, T. C. (1990). Comparison of eleven major learning style models: variables, appropriate populations, validity of instrumentation and the research behind them. *Reading Writing and Learning Disabilities*, 6, 203-222. (Hemispheric Publishing Corporation).

de Ciantis, S. M. & Kirton, M. J. (1996). A psychometric re-examination of Kolb's experiential learning style construct: A separation of level, style and process. *Educational and Psychological Measurement*, 56, 809-20.

Denzin, N. K. (1970). *The Research Act: A Theoretical Introduction to Sociological Methods*. Aldine, Chicago, Ill.

Denzin, N. K. (1978). *Sociological Methods: A Sourcebook*. McGraw-Hill, New York.

Desmedt, E., & Valcke, M. (2004). Mapping the learning styles 'jungle': An overview of the literature based on citation analysis. *Educational Psychology*, 24, 4, August, 445-464.

Ditchburn, G. J. (1996). Cross-cultural adjustment and psychoticism. *Personality and Individual Differences*, 21, 295-296.

Domino, G. & Hannah, M. T. (1987). A comparative analysis of social values of Chinese and American children. *Journal of Cross-cultural Psychology*, 18, March, 58-77.

Donath, S. (2001). The validity of the 12-item General Health Questionnaire in Australia: a comparison between three scoring methods. *Australia and New Zealand Journal of Psychiatry*, Apr, 35, 2, 231-235.

Doucette, P. A., Kelleher, W. E., Murphy, H. J. & Young, J. D. (1998). Cognitive style and law students in Eastern Canada: Preliminary findings. *College Student Journal*, 32, 206-214.

Dunn, R. & Dunn, K. (1993). *Teaching Secondary Students through Their Individual Learning Styles: Practical Approaches for Grades 7-12*. Boston: Allyn & Bacon.

Duffy, A. & Duffy, T. (2002). Psychometric properties of Honey & Mumford's Learning Styles Questionnaire (LSQ). *Personality and Individual Differences*, 33, 147-163.

Dyal, J. A., Eckermann, A. K., Chan, G., Rai, N. & Lum, J. (1979). Cognitive style and attitudinal variables differentiating immigrant and Hawaii-born Filipinos (Ilocanos). Paper presented at the Asian Regional Conference of the International Association for Cross-cultural Psychology, Hong Kong.

Entwistle, N. (1981). *Styles of Learning and Teaching*. Chichester, Wiley.

Eschbach, D. M., Parker, G. E. & Stoeberl, P. A. (2001). American repatriate employees' retrospective assessments of the effects of cross-cultural training on their adaptation to international assignments. *International Journal of Human Resource Management*, 12, 2, March, 270-287.

Freedman, R. D. & Stumpf, S. A. (1978). What can one learn from the Learning Style Inventory? *Academy of Management Journal*, 21, 2, 275-282.

Furnham, A. & Bochner, S. (1982). Social difficulty in a foreign culture: An empirical analysis of culture shock. In S. Bochner (Ed.) *Cultures in Contact: Studies in Cross-Cultural Interactions*, 161-198. Oxford: Pergamon.

Furnham, A. & Bochner, S. (1986). *Culture Shock: Psychological Reactions to Unfamiliar Environments*. London: Methuen.

Furnham, A. & Shiekh, S. (1993). Gender, generational and social support correlates of mental health in Asian immigrants. *International Journal of Social Psychiatry*, 39, 22-33.

Furnham, A. & Stringfield, P. (1993). Personality and occupational behaviour: Myers-Briggs Type Indicator correlates of managerial practices in two cultures. *Human Relations*, 46, 7, 827-840.

Furnham, A. & Tresize, L. (1981). The mental health of foreign students. *Social Science and Medicine*, 17, 365-370.

Furnham, A. (2004). Foreign students: Education and culture shock. *The Psychologist*, 17, 1, January, 16-19.

Furukawa, T. & Shibayama, T. (1993). Predicting maladjustment of exchange students in different cultures: A perspective study. *Social Psychiatry and Psychiatric Epidemiology*, 28, 142-146.

Galliers, R. D. (1985). In search of a paradigm for information systems research. In E. E. Mumford, R. Hirschheim, G. Fitzgerald, & A. T. Wood-Harper (Eds.) *Research Methods in Information Systems*. Elsevier, Amsterdam.

Gardner, R. W., Holzman, P. S., Klein, G. S., Linton, H., & Spence, D. P. (1959). Cognitive control: a study of individual consistencies in cognitive behaviour. *Psychological Issues*, 1, 4.

Gardner, R. W. (1962). Cognitive controls in adaptation: research and measurement. In S. Messick & J. Ross (Ed.) *Measurement in Personality and Cognition*, 183-198. John Wiley & Sons, INC.

Geiger, M. A. & Pinto, J. K. (1991). Changes in learning style preference during a three-year longitudinal study. *Psychological Reports*, 69, 755-762.

- Geiger, M. A. & Pinto, J. K. (1992). Changes in learning style preferences: a reply to Ruble and Stout. *Psychological Reports*, 70, 1072-1074.
- Ghaffarian, S. (1998). The acculturation of Iranian immigrants in the United States and the implications for mental health. *Journal of Social Psychology*, 138, 645-654.
- Ghuman, P. (1975). *The Cultural Context of Thinking*. Windsor: NFER.
- Gill, J. & Johnson, P. (1997). *Research Methods for Managers*. Paul Chapman Publishing, London.
- Gish, D. (1983). Sources of missionary stress. *Journal of Psychology and Theology*, 11, 243-250.
- Glazer, N. & Moynihan, D. (1963). *Beyond the Melting Pot*. Cambridge, MA: Harvard University Press.
- Glazer, N. & Moynihan, D. (1975). Introduction. In N. Glazer & D. Moynihan (Eds.) *Ethnicity: Theory and Experience*. Cambridge, MA: Harvard University Press.
- Globerson, T. & Zelniker, T. (1989). *Cognitive Style and Cognitive Development*. Ablex Publishing Corporation.
- Goldberg, D. P. (1978). *Manual of the General Health Questionnaire*. London: NFER.
- Goldstein, K. M. & Blackman, S. (1978). *Cognitive Style: Five Approaches and Relevant Research*. New York, Wiley Interscience.
- Goldstein, D. L. & Smith, D. H. (1999). The Analysis of the effects of experiential training on sojourners cross-cultural adaptability. *International Journal of Intercultural Relations*, 23, 1, 153-173.

Gordon, M. M. (1964). *Assimilation in American Life: The Role of Race, Religion, and National Origins*. New York: Oxford University Press.

Graves, T. D. (1967). Psychological acculturation in a tri-ethnic community. *South-Western Journal of Anthropology*, 23, 337-350.

Gregorc, A. R. (1979). Learning/teaching styles: potent forces behind them. *Educational Leadership*, Jan, 234-236.

Griffiths, R. T. & Sheen, R. (1992). Disembedded figures in the landscape: A reappraisal of L2 research on field dependence/independence. *Applied Linguistics*, 13, 133-148.

Gudykunst, W. B. (1993). Toward a theory of effective interpersonal and intergroup communication: An anxiety/uncertainty management perspective. In R. L. Wiseman & J. Koester (Eds.) *Intercultural Communication Competence*, 33-71. Newbury Park, CA: Sage.

Gudykunst, W. B. & Hammer, M. R. (1988). Strangers and hosts: An extension of uncertainty reduction theory to intercultural adjustment. In Y. Y. Kim & W. B. Gudykunst (Eds.) *Cross-cultural Adaptation*, 106-139. Newbury Park, CA: Sage

Gudykunst, W. B. (1998). Applying anxiety/uncertainty management (AUM) theory to intercultural adaptation training. *International Journal of Intercultural Relations*, 22, 227-250.

Guilford, J. P. (1965). *Fundamental Statistics in Psychology and Education* (4th Ed.). New York, McGraw-Hill.

Gullahorn, J. T. & Gullahorn, J. E. (1963). An extension of the U-curve hypothesis. *Journal of Social Issues*, 19, 33-47.

Guthrie, G. M. (1966). Cultural preparation for the Philippines. In R. B. Textor (Ed.) *Cultural Frontiers of the Peace Corps*, 15-34. Cambridge, MA: MIT Press.

Haddon, F. A. & Lytton, H. (1968). Teaching approach and the development of divergent thinking abilities in primary school. *British Journal of Educational Psychology*, 38, 171-180.

Halpin, G. & Peterson, H. (1986). Accommodating instruction to learners' field independence/dependence: A study of effects on achievement and attitudes. *Perceptual and Motor Skills*, 62, 967-974.

Hammer, M. R. (1992). Research mission statements and international student advisory offices. *International Journal of Intercultural Relations*, 16, 217-236.

Hammer, M. R., Gudykunst, W. B. & Wiseman, R. L. (1978). Dimensions of intercultural effectiveness: An exploratory study. *International Journal of Intercultural Relations*, 2, 383-393.

Hammersley, M. & Atkinson, P. (1995). *Ethnography: Principles in Practice*. London: Routledge.

Hammond, K. R., Hamm, R. M., Grassia, J. & Pearson, T. (1987). Direct comparison of the efficacy of intuitive and analytical cognition in expert judgement. *IEEE Transactions on Systems, Man and Cybernetics*, 17, 5, 753-770.

Harre, R & Lamb, R. (1986). *The Dictionary of Personality and Social Psychology*. Oxford: Basil Blackwell.

Harrison, A. F. & Bramson, R. M. (1977). *IMQ Administration and Interpretation Manual*. Berkeley, CA: Bramson, Parlette, Harrison & Associates.

Harrison, J. K., Chadwick, M. & Scales, M. (1996). The relationship between cross-cultural adjustment and the personality variables of self-efficacy and self-monitoring. *International Journal of Intercultural Relations*, 20, 167–188.

Hayes, J. & Allinson, C. W. (1994). Cognitive style and its relevance for management practice. *British Journal of Management*, 5, 53 - 71.

Hayes, J. & Allinson, C. W. (1997). Learning styles and training and development in work settings: lessons from educational research, *Educational Psychology*, 17, 1 & 2, 185-193.

Hayes, J. & Allinson, C. W. (1998). Cognitive style and the theory and practice of individual and collective learning in organizations. *Human Relations*, 51, 7, 847-871.

Hayes, J., Allinson, C. W., Hudson, R. S. & Keasey, K. (2003). Further reflections on the nature of intuition-analysis and the construct validity the Cognitive Style Index. *Journal of Occupational and Organizational Psychology*, 76, 2, 269-278.

Haynes, V. F. & Miller, P. H. (1987). The relationship between cognitive style, memory and attention in pre-schoolers. *Child Study Journal*, 17, 1, 21-33.

Hector St. John de Crèvecoeur, J. (1782). What is an American? *Letters from an American Farmer*.

Heffler, B. (2001). Individual learning style and the Learning Style Inventory. *Educational Studies*, 27, 3, 307-316.

Henderson, J. C. & Nutt, P. C. (1980). The influence of decision style on decision making behaviour. *Management Science*. 26, 371-386.

Hickson, D. J. & Pugh, D. S. (1995). *Management Worldwide: The Impact of Societal Culture on Organizations around the Globe*. Harmondsworth: Penguin.

Hill, J., Puurula, A., Sitko-Lutek, A. & Rokowska, A. (2000). Cognitive style and socialisation: an exploration of learned sources of style in Finland, Poland and the UK. *Educational Psychology*, 20, 3, 285-305.

Hodgkinson, G. P. & Sadler-Smith, E. (2003a). Complex or unitary? A critique and empirical reassessment of the Allinson-Hayes Cognitive Style Index. *Journal of Occupational and Organizational Psychology*, 76, 2, 243-268.

Hodgkinson, G. P. and Sadler-Smith, E. (2003b). Reflections on reflections... on the nature of intuition, analysis and the construct validity of the Cognitive Style Index. *Journal of Occupational and Organizational Psychology*, 76, 2.

Hoecklin, L (1996). *Managing Cultural Differences: Strategies for Competitive Advantage*. Addison-Wesley.

Hofstede, G. (1980). *Culture's Consequences*. Sage Publications, California.

Hofstede, G. (1994). *Cultures and organizations: Software of the Mind*. Harper Collins Business.

Honey, P. & Mumford, A. (1982). *The Manual of Learning Styles*. Maidenhead:Honey.

Hovey, J. H. & King, C. A. (1996). Acculturative stress, depression, and suicidal ideation among immigrant and second-generation Latino adolescents. *Journal of American Academy of Child and Adolescent Psychiatry*, 35, 1183.

Huang, H. C., Hwang, K. K. & Ko, Y. H. (1983). Life stress, attribution style, social support and depression among university students [in Chinese]. *Acta Psychological Taiwanica*, 25, 31-47.

Huang, J. & Sisco, B. R. (1994). Thinking styles of Chinese and American adult students in higher education: a comparative study. *Psychological Reports*, 74, 475-480.

Hudson, L. (1968). *Frames of Mind: Ability, Perception and Self-perception in the Arts and Science*. Methuen, London.

Hullett, C. R. & Witte, K. (2001). Predicting intercultural adaptation and isolation: using the extended parallel process model to test anxiety/uncertainty management theory. *International Journal of Intercultural Relations*, 25, 125-139

Hunt, R. G., Krzystofiak, F. L., Meindl, J. R. & Yousry, A. M. (1989). Cognitive style and decision making. *Organizational Behavior and Human Decision Process*, 44, 436-453.

Jackson, C. J. (2002). *Learning Styles and its Measurement: An Applied Neuropsychological Model of Learning for Business, Education and Clinical Use*. Cymeon Pty Ltd.

Jonassen, D. H. & Grabowski, B. L. (1993). *Handbook of Individual Differences, Learning and Instruction*. Hillsdale, NJ: Lawrence Erlbaum.

Jung, C. (1923). *Psychological Types*. London: Pantheon Books.

Juffer, K. A. (1983). Initial development and validation of an instrument to access degree of culture adaptation. In R. J. Bransford (Ed.) *Monograph Series*, 4, 1. Boulder, CO: BUENO. Center for Multicultural Education.

Kagan, J., Moss, H. A., & Sigel, I. E. (1963). The psychological significance of styles of conceptualisation. In J. F. Wright & J. Kagan (Eds.) *Basic cognitive processes in children. Monograph of the Society for Research in Child Development*, 28, 73-112.

- Kagan, J., Rosman, B. L., Day, D., Albert, J. & Phillips, W. (1964). Information processing in the child: significance of Analytic and Reflective attitudes. *Psychological Monographs: General and Applied*, 78, 1.
- Kagan, J. & Kogan, N. (1970). Individual variations in cognitive processes. In P. H. Mussen (Ed.) *Carmichaels Manual of Child Psychology* (3rd Ed.), 1273-1365. New York: Wiley.
- Kalsbeck, D. H. (1989). Linking learning style theory with retention research: The TRAILS Project. *Association for Institutional Research*.
- Kassem, M. S. (1989). Strategy Formulation: Arabian Gulf Style, *International Studies of Management and Organization*, 19, 2, 6-21.
- Katz, N. (1986). Construct validity of Kolb's Learning Style Inventory, using factor analysis and Guttman's smallest space analysis. *Perceptual and Motor Skills*, 63, 1323-1326.
- Keefe, J. W. & Monk, J. S. (1990). *The NASSP Learning Style Profile*. Reston, VA, National Association of Secondary School Principals.
- Keen, P. G. W. (1973). *The implications of cognitive style for individual decision making*. Unpublished Doctoral Thesis, Harvard University Graduate School of Business Administration.
- Kim, U. (1988). Acculturation of Korean immigrants to Canada. Unpublished Doctoral Thesis, Queens' University, Canada.
- Kirton, M. (1976). Adaptors and Innovators: A description and measure. *Journal of Applied Psychology*, 61, 622-629.

Kirton, M. J. (1980). Adaptors and innovators in organisations. *Human Relations*, 3, 213-214.

Kirton, M. J. & McCarthy, R. M. (1988). Cognitive climate and organizations. *Journal of Occupational Psychology*, 61, 175-184.

Kirton, M. J. (1989) *Adaptors and Innovators*. London, Routledge.

Kirton, M. J. (1994). *Adaptors and Innovators*. London: Routledge.

Kline, P. (1993). *The Handbook of Psychological Testing*. London: Routledge.

Klineberg, O. (1981). The role of international university exchanges. In S. Bochner (Ed.) *The Mediating Person: Bridges between Cultures*, 113-135. Cambridge, MA: Schenkman.

Klineberg, O. (1982). Contact between ethnic groups: A historical perspective of some aspects of theory and research. In S. Bochner (Ed.) *Cultures in Contact: Studies in Cross-Cultural Interaction*, 45-55. Oxford: Pergamon.

Klineberg, O. & Hull, W. F. (1979). *At A Foreign University: An International Study of Adaptation and Coping*. New York: Praeger.

Kogan, N. (1971). Educational implications of cognitive styles. In G. S. Lesser (Ed.) *Psychology and Educational Practice*, 242-292. Scott Foresman, Glenview, IL.

Kogan, N. (1976). Sex differences in creativity and cognitive styles. In S. Messick (Ed.), *Individuality in Learning*, 93-119. San Francisco, Ca: Jossey-Bass.

Kogan, N. (1980). Cognitive styles and reading performance. *Bulletin of the Orton Society*, 30, 63-78.

Kolb, D. A. (1976). Management and the Learning Process. *California Management Review*, 18, 3, 21-31.

Kolb, D. (1981). Learning styles and disciplinary differences. In Chickering, A. W. & Associates (Eds.), *Modern American College: Responding to the New Realities of Diverse Students and a Changing Society*, 232-255. Jossey-Bass Publishers.

Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice Hall PTR, Englewood Cliffs, New Jersey.

Kolb, D. A. (2000). *Facilitator's Guide to Learning*. Boston: Hay/McBer.

Kolb, D. A., Boyatzis, R. E. & Mainemelis, C. (2001). Experiential learning theory: previous research and new directions. In R. J. Sternbery & L. F. Zhang (Eds.) *Perspectives on Thinking, Learning, and Cognitive Styles*, 227-247. Lawrence Erlbaum Associates, Inc.

Kume, T. (1985). Managerial attitudes toward decision-making. In W. B. Gudykunst, L. P. Stewart & S. Ting-Toomey (Eds.) *Communication, Culture, and Organizational Processes*, 231-51. Beverly Hills, CA: Sage.

Kyriacou, O. N. (2000). Gender, Ethnicity and Professional Membership: the case of the UK accounting profession. Unpublished Doctoral Thesis, University of East London, UK.

Lam, S. S. K. (1997). Reliability and classification stability of Learning Style Inventory in Hong Kong. *Perceptual and Motor Skills*, 85, 1.

Laubeove, L. (2000). Melting Pot vs. Ethic Stew. *Encyclopedia of the World's Minorities*. Fitzroy Dearborn Publishers.

Lazarus, R. S. & Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York: Springer Publishing Company.

Lee, T. H. T. (1991). Linearity as a scope principle for Chinese: The evidence from first language acquisition. In D. J. Napoli & J. A. Kegl (Eds.) *Bridges Between Psychology and Linguistics*, 183-206. Hillsdale, NJ: Erlbaum.

Lewin, K. (1923). *A Dynamic Theory of Personality*. New York: McGraw-Hill.

Liu, X. C., Kuo, C. Q., Wang, J. L. Yu, J. C. & Tien, J. (1991). Survey of depressive moods and related factors among senior high school students [in Chinese]. *Chinese Journal of Mental Health*, 5, 1, 24-26.

Lofstrom, E. (2002). Person-situation interactions in SMEs: A study of cognitive style and sources of job satisfaction. In M. Valcke & D. Gombeir (Eds.) *Learning Styles: Reliability and Validity*. Proceedings of the 7th Annual European Learning Styles information Network conference, 26-28 June, Ghent. Ghent: University of Ghent.

Lu, L. (1990). Adaptation to British universities: Homesickness and mental health of Chinese students. *Counselling Psychology Quarterly*, 3, 225-232.

Lysgaard, S. (1955). Adjustment in a foreign society: Norwegian Fulbright grantees visiting the United States. *International social Science Bulletin*, 7, 45-51.

Mainemelis, C., Boyatzis, R. E. & Kolb, D. A. (2002). Learning styles and adaptive flexibility: testing experiential learning theory. *Management Learning*, 33, 1, 5-33.

Marsella, A. J. Shizuru, L. S., Brennan, J. M. & Kameoka, V. (1981). Depression and body image satisfaction. *Journal of Cross-Cultural Psychology*, 12, 360-371.

Marshall, J. C. & Merritt, S. L. (1985). Reliability and construct validity of alternate forms of the Learning Style Inventory. *Educational and Psychological Measurement*, 45, 931-7.

Mason, J. (1996). *Qualitative Researching*. London: Sage.

Massari, D. & Massari, J. A. (1973). Sex differences in the relationship of cognitive style and intellectual functioning in disadvantaged pre-school children. *Journal of Genetic Psychology*, 122, 175-181.

McCaully, M. (1981). Jung's theory of psychological types and the Myers-Briggs Type Indicator. *Advances in Psychological Assessment*, 5, 481-486.

McDonald, E. R. (1984). The relationship of student and faculty field dependence/independence congruence to student academic achievement. *Educational and Psychological Measurement*, 44, 725-731.

McKenna, F. P. (1984). Measures of field-dependence: cognitive style or cognitive ability? *Journal of Sociology and Social Psychology*, 47, 593-603.

McKinnel, J. C. (1993). Cognitive Styles of Creativity: Relation of scores on the Kirton Adaptation-innovation Inventory and the Myers Briggs Type Indicator among managers in USA. *Psychological Reports*, 72, 1131-1138.

McLeod, D. B. & Adams, V. M. (1977). *Relating field independence and a discovery approach to learning mathematics: a trait-treatment interaction study*. Paper presented at the meeting of the American Educational Research Association, April, New York.

Mendenhall, M. & Oddou, G. (1985). The dimensions of expatriate acculturation. *Academy of Management Review*, 10, 39-47.

Mervosh, E. M. & McCleniahan, J. S. (1997). The care and feeding of expats. *Industry Week*, 1, December, 69-72.

Messer, S. B. (1976). Reflectivity-impulsivity: A review. *Psychological Bulletin*, 83, 1026-1053.

Messick, S. (1976). Personality consistencies in cognition and creativity. In S. Messick (Ed.) *Individuality in Learning*, 4-22. San Francisco, Ca: Jossey-Bass.

Messick, S. (1984). The nature of cognitive styles: problems and promise in educational practice. *Educational Psychologist*, 19, 2, 59-74.

Miller, A. (1987). Cognitive styles: An integrated model. *Educational Psychology*, 7, 251-268.

Miller, A. (1991). Personality types, learning styles and educational goals. *Educational Psychology*, 11, 217-238.

Miller, D. & Friesen, P. H. (1982). The longitudinal analysis of organisations. *Management Science*, 28, 9, 1013-1034.

Mishra, R. (1997). Cognition and cognitive development. In J. W. Berry, P. R. Dasen & T. S. Saraswathi (Eds.) *Handbook of Cross-cultural Psychology*, (2nd Ed.), 143-175. Boston: Allyn & Bacon

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40, 1, 120-123.

Moyerman, D. R. & Forman, B. C. (1992). Acculturation and adjustment: A meta-analytic study. *Hispanic Journal of Behavioral Sciences*, 14, 163-200.

Mullins, L. J. (1999). *Management and Organisational Behaviour*, Financial Times Management.

Murphy, H. J., Kelleher, W. E., Doucette, P. A., & Young, J. D. (1998). Test-retest reliability and construct validity of the Cognitive Style Index for business undergraduates. *Psychological Reports*, 82, 595-600.

Myers, I. B. (1962). *Manual: The Myers Briggs Type Indicator*. Palo Alto: Consulting.

Myers, I. B. & McCaulley, M. H. (1985). *Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator*. Palo Alto, CA: Consulting Psychologists Press.

Myers, I. B. & McCaulley, M. H. (1998). *Manual: A Guide to the Development and Use of the Myers-Briggs Type Indicator*. Palo Alto, CA: Consulting Psychologists Press.

Nakamura, H. (1964). *Ways of Thinking of Eastern Peoples: India-China-Tibet-Japan*. East-West Center Press, Honolulu, Hawaii.

Nash, D. (1991). The cause of sojourner adaptation: A new test of the U-curve hypothesis. *Human Organization*, 50, 283-286.

Newstead, S. (1992). A study of two 'quick and easy' methods of identifying student learning style. *British Journal of Educational Psychology*, 62, 299-312.

Newble, D. I. & Hejka, E. F. (1991). Approaches to learning of medical students and practising physicians: some empirical evidence and its implications for medical education. *Educational Psychology*, 11, 3&4, 333-342.

Nicholson, N. & Imaizumi, A. (1993). The adjustment of Japanese expatriates to living and working. *Britain. British Journal of Management*, 4, 119-134.

Nickerson, R., Perkins, D. & Smith, E. (1985). *The Teaching of Thinking*. Hillsdale, NJ: Earlbaum.

Nulty, D. D. & Barrett, M. A. (1996). Transitions in students' learning styles. *Studies in Higher Education*, 21, 3, 333-332.

Nwadiora, E. & McAdoo, H. (1996). Acculturative stress among American refugees: gender and racial differences. *Adolescence*, 31, 477-487.

Oberg, K. (1960). Cultural shock: Adjustment to new cultural environments. *Practical Anthropology*, 7, 177-182.

Olmeda, E. L. (1979). Acculturation: A psychometric perspective. *American Psychologist*, 34, 1061-1070.

Ornstein, R. E. (1977). *The Psychology of Consciousness*, (2nd Ed.). New York: Harcourt, Brace, Jovanovich.

Packer, J. & Bain, J. D. (1978). Cognitive style and teacher-student compatibility. *Journal of Educational Psychology*, 70, 5, 864-871.

Parker, B. & McEvoy, G. M. (1993). Initial examination of a model of intercultural adjustment. *International Journal of Intercultural Relations*, 17, 355-379.

Paivio, A. (1971). Styles and strategies of learning. *British Journal of Educational Psychology*, 46, 128-148.

Parrillo, V. N. (1996). *Diversity in America*. Thousand Oaks, CA: Pine Forge Press.

Parrillo, V. (1997). *Strangers to These Shores. Race and Ethnic Relations in the United States*. Boston - London: Allyn and Bacon.

Pearce, P. L. (1982a). Tourists and their hosts: some social and psychological effects of intercultural contact. In S. Bochner (Ed.) *Culturals in Contact: Studies in Cross-cultural Interaction*, 199-221. Oxford: Pergamon.

Pearce, P. L. (1982b). *The Social Psychology of Tourist Behaviour*. Oxford: Pergamon.

Peterson, E. R., Deary, I. J. and Austin, E. J. (2003). The reliability of Riding's Cognitive Style Analysis test. *Personality and Individual Differences*, 33.

Pettigrew, A. (1985). Contextualist research: A natural way to link theory and practice. In E. E. Lawler (Ed.) *Doing Research that is Useful in Theory and Practice*. Jossey Bass, Dan Francisco.

Rao, G. L. (1979). *Brain Drain and Foreign Students: A Study of the Attitudes and Intentions of Foreign Students in Australia, the U.S.A., Canada, and France*. New York: St. Martin's Press.

Rao, H. R., Jacob, V. S., Lin, F., Robey, D. & Huber, G. P. (1992). Hemispheric specialisation, cognitive differences, and their implications for the design of decision support systems. *MIS Quarterly*, 16, 145-151.

Redding, S. G. & Wong, G. Y. Y. (1986). The psychology of Chinese organizational behaviour. In Bond, M. H. (Ed.) *The Psychology of the Chinese People*, 267-295. Hong Kong: Oxford University Press.

Redfield, R., Linton, R. & Herskovits, M. J. (1936). Memorandum for the study of acculturation. *American Anthropologist*, 38, 149-152.

Redmond, J. A., Mullally, A. A. P. & Parkinson, A. B. (2002). Test-retest reliability of Riding's CSA. In M. Valcke & D. Gombeir (Eds) *Learning Styles: Reliability and Validity*. Proceedings of the 7th Annual European Learning Styles information Network conference, 26-28 June, Ghent. Ghent: University of Ghent.

Remenyi, D., Williams, B., Money, A. & Swartz, E. (1998). *Doing Research in Business and Management*. Sage Publications, London.

Richmond, A. (1993). Reactive migration: sociological perspectives on refugee movements. *Journal of Refugee Studies*, 6, 7-24.

Riding, R. J. (1991). *Cognitive Styles Analysis*. Birmingham: Learning and Training Technology.

Riding, R. & Cheema, I. (1991). Cognitive styles—An overview and integration. *Educational Psychology*, 11, 3&4, 193-215.

Riding, R. & Douglas, G. (1993). The effect of cognitive style and mode of presentation on learning performance. *British Journal of Educational Psychology*, 63, 297-307.

Riding, R. & Rayner, S. (1998). *Cognitive Styles and Learning Strategies: Understanding Style Differences in Learning and Behaviour*. David Fulton Publishers Ltd.

Riding, R. & Rayner, S. (2002). *Cognitive Styles and Learning Strategies: Understanding Style Differences in Learning and Behaviour* (5th Ed.). David Fulton Publishers Ltd.

Riley, J. (1990). *Getting the Most of from Your Data: A Handbook of Practical Ideas on How to Analyse Qualitative Data*. Bristol: Technical and Educational Services Ltd.

Robbins, S. P. (2001). *Organizational Behavior*, (9th Ed.). Prentice Hall, Inc., Upper Saddle River, New Jersey, 07458.

Robertson, I. T. (1985). Human information-processing strategies and styles. *Behavior and Information Technology*, 4, 19-29.

Robey, D. & Taggart, W. (1981). Measuring managers' minds: The assessment of style in human information processing. *Academy of Management Review*, 6, 375-383.

Root, J. R. & Gall, M. D. (1979). *The interaction between learner characteristics and two methods of college instruction: conventional and mastery learning*. Paper presented at the meeting of the American Educational Research Association, San Francisco, CA.

Roscoe, J. T. (1975). *Fundamental Research Statistics for the Behavioral Sciences*. New York: Holt, Rinehart and Winston.

Rossmann, G. B. & Rallis, S. F. (1998). *Learning in the Field: An Introduction to Qualitative Research*. Thousand Oaks, CA: Sage.

Rothman, M. (2000). Cognitive style and cultural roots: an empirical study among African/American, Hispanic/Latin, Asian/Pacific and Anglo/American managers. *International Journal of Management*, 17, 2, 183-191.

Rush, M. G. & Moore, D. M. (1991). Effects of restructuring training and cognitive style. *Educational Psychology*, 11, 3&4.

Ryan, M. E. & Twibell, R. S. (2000). Concerns, values, stress, coping, health and educational outcomes of college students who studied abroad. *International Journal of Intercultural Relations*. 24, 409-435.

Sadler-Smith, E., Spicer, D. P & Tsang, F. (2000). Validity of the cognitive style index: replication and extension. *British Journal of Management*, 11, 175-181.

Sadler-Smith, E. & Tsang, F. (1998). A comparative study of approaches to studying in Hong Kong and the United Kingdom. *British Journal of Educational Psychology*, 68, 81-93.

Sam, D. L. (1998). Predicting life satisfaction among adolescents from immigrant families in Norway. *Ethnicity and Health*, 3, 5-18.

Savvas, M., El-Kot, G. & Sadler-Smith, E. (2001). Comparative study of cognitive styles in Egypt, Greece, Hong Kong and the UK. *International Journal of Training and Development*, 5, 1, 64-73.

Schnell, J. (1996). *Understanding the shock in culture shock*. Unpublished paper. (ERIC Document Reproduction Service No. ED 398 616)

Searle, W. & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, 14, 449-464.

Seidel, G. (1981). Cross-cultural training procedures: Their theoretical framework and evaluation. In S. Bochner (Ed.) *The Mediating Person: Bridges between Cultures*, 184-213. Cambridge, MA: Schenkman.

Sekaran, U. (1992). *Research Methods for Business*. New York: Wiley.

Selmer, J. (1999). Culture shock in China? Adjustment pattern of western expatriate business managers. *International Business Review*, 8, 515-534.

Shaffer, M. A., Harrison, D. A. & Gilley, K. M. (1999). Dimensions, determinants, and differences in the expatriate adjustment process. *Journal of International Business Studies*, 30, 557-581.

Shek, D. T. (1990). Reliability and factorial structure of the Chinese version of the Beck Depression Inventory. *Journal of Clinical Psychology*, 46, 35-43.

Shek, D. T. (1991). What does the Chinese version of the Beck Depression Inventory measure in Chinese students- general psychopathology or depression? *Journal of Clinical Psychology*, 47, 381-390.

Simon, H. A. (1989). Making management decisions: The role of intuition and emotion. In W. H. Agor (Ed.) *Intuition in Organizations*, 23-29. Sage Publications, Inc.

Simonton, D. K. (1980). Making management decisions, the role of intuition and emotion. *Academy of Management Executive*, February, 57-64.

Sims, R. R., Veres, J. G. III., Watson, P. & Buckner, K. E. (1986). The reliability and classification stability of the Learning Style Inventory. *Educational and Psychological Measurement*, 46, 753-60.

Singh Ghuman, P. A. (1997). Assimilation or integration? A study of Asian adolescents. *Educational Research*, 39, 23-35.

Solomon, C. M. (1999). Short term assignments and other solutions. *Global Workforce*, 4, 38-40.

Sperry, R. W. (1973). Lateral specialization of cerebral function in the surgically separated hemispheres. In F. J. McGuigan & R. A. Shoonover (Eds.) *The Psychophysiology of Thinking*, 209-229. New York: Academic Press.

Stening, B. W. & Hammer, M. R. (1992). Cultural baggage and the adaptation of expatriate American and Japanese managers. *Management International Review*, 32, 77-89.

Stephan, C. W. & Stephan, W. G. (1992). Reducing intercultural anxiety through intercultural contact. *International Journal of Intercultural Relations*, 16, 89-106.

Stephenson, M. (2000). Development and validation of the Stephenson Multigroup Acculturation Scale (SMAS). *Psychological Assessment*, 12, 77-88.

Sternberg, R. J. & Grigorenko, E. L. (2001). A capsule history of theory and research on styles. In Sternberg, R. J. & Zhang, L. F. (Eds.) *Perspectives on Thinking, Learning and Cognitive Styles*, 1-22. Mahwah, New Jersey: Lawrence Erlbaum.

Stevens, S. (1951). Mathematics, measurement and psychophysics. In S. Stevens (Ed.) *Handbook of Experimental Psychology*. New York, Wiley.

Stone Feinstein, E. & Ward, C. (1990). Loneliness and psychological adjustment of sojourners: New perspectives on culture shock. In D. M. Keats, D. Munro & L. Mann (Eds.) *Heterogeneity in Cross-Cultural Psychology*, 537-547. Lisse. The Netherlands: Swets & Zeitlinger.

Storr, A. (1973). *Jung*. London: Fontana/Collins.

Streufer, S. & Nogami, G. Y. (1989). Cognitive style and complexity: Implications for I/O Psychology. In E. L., Cooper & I., Robertson (Eds.) *International Review of Industrial and Organisational Psychology*, 93-143. Chichester, UK, Wiley.

Sue, D.W. (1991). A conceptual model for cultural diversity. *Journal of Counseling and Development*, 70, 99–105.

Sugarman, L. (1985). Kolb's model of experiential learning: touchstone for trainers, students, counsellors and clients. *Journal of Counselling and Development*, 64, December, 264-268.

Taft, R. & Steinkalk, E (1985). The adaptation of recent Soviet immigrants in Australia. In I. R. Lagunes & Y. H. Poortinga (Eds.) *From a Different Perspective: Studies of Behavior across Cultures*, 19-28. Lisse, The Netherlands: Swets & Zeitlinger.

Tang, T. N. & Dion, K. L. (1999). Gender and acculturation in relations to traditionalism: Perceptions of self and parents among Chinese students. *Sex Roles*, 41, 17-29.

Taris, T. (2000). *A Primer in Longitudinal Data Analysis*. Sage Publications Ltd.

Tennant, M. (1988). *Psychology and Adult Learning*. London: Routledge.

Thorne, A. & Gough, H. (1999). *Portraits of Type: An MBTI Research Compendium (2nd Ed.)*. Gainesville, FLA: Center for Applications of Psychological Type, Inc.

Torbiorn, I. (1994). Operative and strategic use of expatriates in new organizations and market structures. *International Studies of Management and Organizations*, 24, 5-17.

Triandis, H. C. (1975). Culture training, cognitive complexity and interpersonal attitudes. In R. Brislin, S. Bochner, & W. Lonner (Eds.) *Cross-cultural Perspectives on Learning*, 39-77. Beverly Hills, CA: Sage.

Tsang, E. W. K. (2001). Adjustment of mainland Chinese academics and students to Singapore. *International Journal of Intercultural Relations*, 25, 347-372.

Tung, R. (1982). Selecting and training procedures of U.S., European, and Japanese multinational corporations. *California Management Review*, 25, 1, 57-71.

Tung, R. L. (1984). *Business Negotiations with the Japanese*. Lexington, MA: Lexington.

van de Vijver, F. J. R. & Phalet, K. (2004). Assessment in Multicultural Groups. *Applied Psychology: An International Review*, 53, 2, 215-236.

van Merriënboer, J. G. & Jelsma, O. (1988). Computer versus experimenter controlled administration? *Educational and Psychological Measurement*, 48, 161-164.

van der Zee, K. I. & Van Oudenhoven, J. P. (2000). The Multicultural Personality Questionnaire: A multidimensional instrument of multicultural effectiveness. *European Journal of Personality*, 14, 291-309.

van Oudenhoven, J. P. & van der Zee, K. I. (2002). Predicting multicultural effectiveness of international students: the Multicultural Personality Questionnaire. *International Journal of Intercultural Relations*, 26, 679-694.

Vitalari, N. P. (1985). The need for longitudinal designs in the study of computing environments. In E. E. Mumford, R. Hirschheim, G. Fitzgerald & A. T. Wood-Harper (Eds.) *Research Methods in Information Systems*. Elsevier, Amsterdam.

Wallach, M. A. (1962). Commentary: active-analytical vs. passive-global cognitive functioning. In S. Messick & J. Ross (Ed.) *Measurement in Personality and Cognition*, 199-215. John Wiley & Sons, INC.

Walsh, J. P. (1995). Managerial and organisational cognition: notes from a trip down memory lane. *Organization Science*, 6, 3, 280-321.

Ward, C. (1996). Acculturation. In D. Landis & R. S. Bhagat (Eds.) *Handbook of Intercultural Training* (2nd Ed.), 124-147. Thousand Oaks, CA: Sage.

Ward, C., Bochner, S. & Furnham, A. (2001). *The Psychology of Culture Shock*. London: Routledge.

Ward, C. & Chang, W. C. (1997). 'Cultural fit:' A new perspective on personality and sojourner adjustment. *International Journal of Intercultural Relations*, 21, 525-533.

Ward, C. & Kennedy, A. (1992). Locus of control, mood disturbance and social difficulty during cross-cultural transitions. *International Journal of Intercultural Relations*, 16, 175-194.

Ward, C. & Kennedy, A. (1993a). Psychological and sociocultural adjustment during cross-cultural transitions: A comparison of secondary students at home and abroad. *International Journal of Psychology*, 28, 129-147.

Ward, C. & Kennedy, A. (1993b). Where's the culture in cross-cultural transition? Comparative studies of sojourner adjustment. *Journal of Cross-Cultural Psychology*, 24, 221-249.

Ward, C. & Kennedy, A. (1996a). Crossing cultures: The relationship between psychological and sociocultural dimensions of cross-cultural adjustment. In J. Pandey, D. Sinha & D. P. S. Bhawuk (Eds.) *Asian Contributions to Cross-cultural Psychology*, 289-306, New Delhi: Sage.

Ward, C. & Kennedy, A. (1996b). Before and after cross-cultural transition: A study of New Zealand volunteers on field assignments. In H. Grad, A. Blanco & J. Georgas (Eds.) *Key Issues in Cross-cultural Psychology*, 138-154. Lisse, The Netherlands: Swets & Zeitlinger.

Ward, C. & Kennedy, A. (1999). The measurement of sociocultural adaptation. *International Journal of Intercultural Relations*, 23, 659-677.

Ward, C., Okura, Y., Kennedy, A. & Kojima, T. (1998). The U-curve on trial: A longitudinal study of psychological and sociocultural adjustment during cross-cultural transition. *International Journal of Intercultural Relations*, 22, 3, 277-291.

Ward, C. & Rana-Deuba, A. (1999). Acculturation and adaptation revisited. *Journal of Cross-cultural Psychology*, 30, 372-392.

Ward, C. & Rana-Deuba, A. (2000). Home and host culture influences on sojourner adjustment. *International Journal of Intercultural Relations*, 24, 291-306.

Ward, C. & Searle, W. (1991). The impact of value discrepancies and cultural identity on psychological and sociocultural adjustment of sojourners. *International Journal of Intercultural Relations*, 15, 209-225.

Westermeyer, J., Neider, J. & Callies, A. (1989). Psychosocial adjustment of Hmong refugees during their first decade in the United States—A longitudinal study. *Journal of Nervous and Mental Disease*, 177, 132-139.

Wheeler, W. R., King, H. H., & Davidson, A. B. (1925). *The Foreign Student in America*. New York: Holt, Rinehart.

Widiger, T. A., Knudson, R. M. & Rorer, L. G. (1980). Convergent and discriminant validity of measures of cognitive styles and abilities. *Journal of Personality and Social Psychology*, 39, 116-129.

Wierstra, R. F. A. & de Jong J. A. (2002). A scaling theoretical evaluation of Kolb's Learning Style Inventory-2. In M. Valcke & D. Gombeir (Eds) *Learning Styles: Reliability and Validity*, 431-40. Proceedings of the 7th Annual European Learning Styles Information Network Conference, 26-28 June, Ghent. Ghent: University of Ghent.

Wilson, D. K. (1986). An investigation of the properties of Kolb's Learning Style Inventory. *Leadership and Organisation Development Journal*, 7, 2, 3-15.

Wilson, D. K. (1988). Management Learning: A Grounded Study for the Written Reflections of Managers of Their Approach to Their Real Time work Problems. Unpublished Doctoral Thesis, University of Lancaster, England.

Witkin, H. A. (1976). Cognitive styles in academic performance and in teacher-student relations. In S. Messick (Ed.) *Individuality in Learning*, 38-72. San Francisco, CA: Jossey-Bass.

Witkin, H. (1978). *Cognitive Styles in Personal and Cultural Adaptation*. Worcester, Mass.: Clark University Press.

Witkin, H. A., Dyke, R. B., Faterson, H. F., Goodenough, D. R. & Karp, S. A. (1962). *Psychological Differentiation: Studies of Development*. London John Wiley and Sons.

Witkin, H. A., Dyke, R. B., Faterson, H. F., Goodenough, D. R. & Karp, S. A. (1974). *Psychological Differentiation*. Potomac, MD. : Earlbaum.

Witkin, H. A., Goodenough, D. R. & Karp, S. A. (1967). Stability of cognitive style from childhood to young adulthood. *Journal of Personality and Social Psychology*, 7, 3, 291-300.

Witkin, H. A. & Goodenough, D. R. (1981). *Cognitive Style: Essence and Origins*. New York: International Universities Press.

Witkin, H. A., Moore, C. A., Goodenough, D. R., & Cox, P. W. (1977). Field-dependent and field-independent cognitive styles and their educational implications. *Review of Educational Research*, 47, 1, 1-64.

Witkin, H. A., Oltman, P. K., Raskin, E. & Karp, S. A. (1971). *A Manual for the Embedded Figures Tests*. Pala Alto, Calif.: Consulting psychologist press.

Woodworth, R. S. (1929). *Psychology, A Study of Mental Life*, rev. Ed. New York: Henry Holt.

Woolston, V. (1995). International students: leveraging learning. In A. S. Pruitt-Longan & P. D. Issac (Eds.) *Student Services for the Changing Graduate Student*

Population : New Directions for Student Services, 72, 81-89. San Francisco: Jossey - Bass.

Xiao, S. F. & Yan, H. Q. (1993). A survey of psychological disorders in general internal medical outpatients, [in Chinese], *Chinese Mental Health Journal*, 7, 4, 154-157.

Ying, Y. W. & Liese, L. H. (1991). Emotional well-being of Taiwan Students in the U.S.: The impact of pre-arrival variables. *American Journal of community Psychology*, 18, 825-845.

Zeleny, M. (1975). Managers without management science. *Interfaces*, 5, 35-42.

Zelniker, T. (1989). Cognitive style and dimensions of information processing. In T. Globerson & T. Zelniker (Eds.) *Cognitive Style and Cognitive Development*. Norwood, N. J.: Ablex Publishing Corporation.

Zhang, L., Allinson, C. W. & Hayes, J. (in progress). The Development of Chinese version of Allinson-Hayes Cognitive Style Index.

Zhang, L., Allinson, C. W. & Hayes, J. (in progress). Malleability of Cognitive Style among British students following cross-cultural experience in China.

Zheng, Y. P. Wei, L. A., Goa, L. G., Zhang, G. C. & Wong, C. G. (1988). Applicability of the Chinese Beck Depression Inventory. *Comprehensive Psychiatry*, 29, 484-489.

Zung, W. W. K. (1965). A Self-Rating Depression Scale. *Archives of General Psychiatry*, 12, Jan, 63-70.

Zung, W. W. K. (1969). A cross-cultural survey of symptoms in depression. *American Journal of Psychiatry*, 126, 1 16-111.

Zung. W. W. K. (1972). A cross-cultural survey of depressive symptomatology in normal adults. *Journal of Cross-cultural Psychology*, 3, 177-183.

CHAPTER 12

APPENDICES

12.1 Questionnaire for Time 1 (Cognitive Style Index)

COGNITIVE STYLE INDEX

NAME.....	AGE.....
OCCUPATION.....	SEX.....

People differ in the way they think about problems. Below are 38 statements designed to identify your own approach. If you believe that a statement is *true* about you, answer **T**. If you believe that it is *false* about you, answer **F**. If you are *uncertain* whether it is true or false, answer **?**. This is not a test of your ability, and there are no right or wrong answers. Simply choose the one response which comes closest to your own opinion. Work quickly, giving your first reaction in each case, and make sure that you respond to every statement.

Indicate your answer by completely filling in the appropriate oval opposite the statement:

like this 0 not like this 0

T True	? Uncertain	F False
--------	-------------	---------

	T	?	F
1. In my experience, rational thought is the only realistic basis for making decisions.	0	0	0
2. To solve a problem, I have to study each part of it in detail.	0	0	0
3. I am most effective when my work involves a clear sequence of tasks to be performed.	0	0	0
4. I have difficulty working with people who 'dive in at the deep end' without considering the finer aspects of the problem.	0	0	0
5. I am careful to follow rules and regulations at work.	0	0	0
6. I avoid taking a course of action if the odds are against its success.	0	0	0
7. I am inclined to scan through reports rather than read them in detail.	0	0	0
8. My understanding of a problem tends to come more from thorough analysis than flashes of insight.	0	0	0
9. I try to keep to a regular routine in my work.	0	0	0
10. The kind of work I like best is that which requires a logical, step-by-step approach.	0	0	0
11. I rarely make 'off the top of the head' decisions.	0	0	0
12. I prefer chaotic action to orderly inaction.	0	0	0
13. Given enough time, I would consider every situation from all angles.	0	0	0
14. To be successful in my work, I find that it is important to avoid hurting other people's feelings.	0	0	0
15. The best way for me to understand a problem is to break it down into its constituent parts.	0	0	0

	T	?	F
16. I find that to adopt a careful, analytical approach to making decisions takes too long.	0	0	0
17. I make most progress when I take calculated risks.	0	0	0
18. I find that it is possible to be too organised when performing certain kinds of task.	0	0	0
19. I always pay attention to detail before I reach a conclusion.	0	0	0
20. I make many of my decisions on the basis of intuition.	0	0	0
21. My philosophy is that it is better to be safe than risk being sorry.	0	0	0
22. When making a decision, I take my time and thoroughly consider all relevant factors.	0	0	0
23. I get on best with quiet, thoughtful people.	0	0	0
24. I would rather that my life was unpredictable than that it followed a regular pattern.	0	0	0
25. Most people regard me as a logical thinker.	0	0	0
26. To fully understand the facts I need a good theory.	0	0	0
27. I work best with people who are spontaneous.	0	0	0
28. I find detailed, methodical work satisfying.	0	0	0
29. My approach to solving a problem is to focus on one part at a time.	0	0	0
30. I am constantly on the lookout for new experiences.	0	0	0
31. In meetings, I have more to say than most.	0	0	0
32. My 'gut feeling' is just as good a basis for decision making as careful analysis.	0	0	0
33. I am the kind of person who casts caution to the wind.	0	0	0
34. I make decisions and get on with things rather than analyse every last detail.	0	0	0
35. I am always prepared to take a gamble.	0	0	0
36. Formal plans are more of a hindrance than a help in my work.	0	0	0
37. I am more at home with ideas rather than facts and figures.	0	0	0
38. I find that 'too much analysis results in paralysis'.	0	0	0

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12.2 Questionnaire for Time 2



LEEDS UNIVERSITY
BUSINESS SCHOOL

Part 1: Personal Information

NAME: _____

AGE: _____ years

SEX (please tick): Female Male

DEGREE PROGRAMME (please tick):

MBA	<input type="checkbox"/>	MSc Management	<input type="checkbox"/>
MA Advertising Marketing	<input type="checkbox"/>	MSc International Marketing	<input type="checkbox"/>
MA Accounting & Finance	<input type="checkbox"/>	MSc International Finance	<input type="checkbox"/>
MA Economics & Finance	<input type="checkbox"/>	MA Economics	<input type="checkbox"/>
MA Human Resource Management	<input type="checkbox"/>		

NATIONALITY: _____

Non-UK students should now proceed to the following questions in Part 1.

UK students should now proceed to Part 2.

For Non-UK Students Only.

Have you lived in the UK at any time before coming to take your Master's degree?

Yes

No

If Yes, for how long? _____ years

What was the purpose of your last previous visit to the UK?

Business

Tourism

Education

Training

Other (please specify) _____

What was your date of arrival in the UK to begin starting for the Master's degree?

Before you arrived in the UK to study Master's degree, did you have any training to help you to adapt to the UK culture?

Yes

No

Who are you living with now?

With my own nationals only

With British nationals only

With mixed nationals

On my own

Others _____

Do you socialize with British nationals?

Yes

No

If Yes, approximately what proportion of your social time do you spend with British nationals?

_____ % (0%-100%)

Non-UK students should now proceed to Part 2.

Part 2: Your Experience

For questions 1 -29 please indicate how much difficulty you experience in the UK in each of these areas. Use the following 1 to 5 scale:

1 = no difficulty; 2 = slight difficulty; 3 = moderate difficulty; 4 = great difficulty; 5 = extreme difficulty

		1	2	3	4	5
1	Making friends					
2	Finding food that I enjoy					
3	Following rules and regulations					
4	Dealing with people in authority					
5	Using the transport system					
6	Dealing with bureaucracy					
7	Making myself understood					
8	Going shopping					
9	Dealing with someone who is unpleasant					
10	Understanding jokes and humour					
11	Accommodation					
12	Going to social gatherings					
13	Dealing with people staring at me					
14	Communicating with people of a different ethnic group					
15	Understanding ethnic and cultural differences					
16	Dealing with unsatisfactory service					
17	Worshipping					
18	Relating with members of the opposite sex					
19	Finding my way around					
20	Talking about myself with others					
21	Dealing with the climate					
22	Family relationships					
23	The pace of life					
24	Being able to see two sides of an intercultural issue.					

**Non-UK Students should now proceed to question 25;
UK students should now proceed to question 30.**

25	Taking a British perspective on the culture					
26	Understanding the British value system					
27	Seeing things from a British point of view					
28	Understanding the British political system					
29	Understanding the British world-view					

Non-UK students should now proceed to question 30.

For questions 30 - 49 please indicate how much of the time you feel or experience the following

		Never / a little of the time	Some of the time	A good part of the time	Most of the time
30	I feel down hearted and blue				
31	Morning is when I feel best				
32	I have crying spells, or feel like it				
33	I have trouble sleeping at night				
34	I eat as much as I used to				
35	I still enjoy sex				
36	I notice that I am losing weight				
37	I have trouble with constipation				
38	My heart beats faster than usual				
39	I get tired for no reason				
40	My mind is as clear as it used to be				
41	I find it easy to do the things I used to do				
42	I am restless and can't keep still				
43	I feel hopeful about the future				
44	I am more irritable than usual				
45	I find it easy to make decisions				
46	I feel that I am useful and needed				
47	My life is pretty full				
48	I feel that others would be better off if I were dead				
49	I still enjoy the things I used to do.				

Part 3: Problem Solving

People differ in the way they think about problems. Below are 38 statements designed to identify your own approach. If you believe that a statement is *true* about you, answer T. If you believe that it is *false* about you, answer F. If you are *uncertain* whether it is true or false, answer ?. This is not a test of your ability, and there are no right or wrong answers. Simply choose the one response which comes closest to your own opinion. Work quickly, giving your first reaction in each case, and make sure that you respond to every statement. Indicate your answer by completely filling in the appropriate oval opposite the statement:

like this 0 not like this 0

T True	? Uncertain	F False
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	T	?	F
1. In my experience, rational thought is the only realistic basis for making decisions.	0	0	0
2. To solve a problem, I have to study each part of it in detail.	0	0	0
3. I am most effective when my work involves a clear sequence of tasks to be performed.	0	0	0
4. I have difficulty working with people who 'dive in at the deep end' without considering the finer aspects of the problem.	0	0	0
5. I am careful to follow rules and regulations at work.	0	0	0
6. I avoid taking a course of action if the odds are against its success.	0	0	0
7. I am inclined to scan through reports rather than read them in detail.	0	0	0
8. My understanding of a problem tends to come more from thorough analysis than flashes of insight.	0	0	0
9. I try to keep to a regular routine in my work.	0	0	0
10. The kind of work I like best is that which requires a logical, step-by-step approach.	0	0	0
11. I rarely make 'off the top of the head' decisions.	0	0	0
12. I prefer chaotic action to orderly inaction.	0	0	0
13. Given enough time, I would consider every situation from all angles.	0	0	0
14. To be successful in my work, I find that it is important to avoid hurting other people's feelings.	0	0	0
15. The best way for me to understand a problem is to break it down into its constituent parts.	0	0	0

	T	?	F
16. I find that to adopt a careful, analytical approach to making decisions takes too long.	0	0	0
17. I make most progress when I take calculated risks.	0	0	0
18. I find that it is possible to be too organised when performing certain kinds of task.	0	0	0
19. I always pay attention to detail before I reach a conclusion.	0	0	0
20. I make many of my decisions on the basis of intuition.	0	0	0
21. My philosophy is that it is better to be safe than risk being sorry.	0	0	0
22. When making a decision, I take my time and thoroughly consider all relevant factors.	0	0	0
23. I get on best with quiet, thoughtful people.	0	0	0
24. I would rather that my life was unpredictable than that it followed a regular pattern.	0	0	0
25. Most people regard me as a logical thinker.	0	0	0
26. To fully understand the facts I need a good theory.	0	0	0
27. I work best with people who are spontaneous.	0	0	0
28. I find detailed, methodical work satisfying.	0	0	0
29. My approach to solving a problem is to focus on one part at a time.	0	0	0
30. I am constantly on the lookout for new experiences.	0	0	0
31. In meetings, I have more to say than most.	0	0	0
32. My 'gut feeling' is just as good a basis for decision making as careful analysis.	0	0	0
33. I am the kind of person who casts caution to the wind.	0	0	0
34. I make decisions and get on with things rather than analyse every last detail.	0	0	0
35. I am always prepared to take a gamble.	0	0	0
36. Formal plans are more of a hindrance than a help in my work.	0	0	0
37. I am more at home with ideas rather than facts and figures.	0	0	0
38. I find that 'too much analysis results in paralysis'.	0	0	0

-----Thank you for your co-operation in completing this questionnaire!-----

12.3 Topics Covered in the Interviews

面谈问题大纲

Topics Covered in the Interviews

1. 背景: 姓名,专业,经验
1. background: name, degree, working experience
2. 以前和西方接触的经历
2. previous experience with westerners
3. 英语程度
3. English language skill
4. 对英国文化的了解
4. knowledge of English culture
5. 初到英国的感受
5. first impression and feelings in UK
6. 英中文化差异和文化冲击
6. Perceived difference in Chinese and British culture
7. 学生生活-住宿
7. student life--accommodation
8. 学习生活-对英国教育系统的认识
8. study life— understanding of English education system
9. 学生生活-社交
9. student life-socialising
10. 总结
10. Summary

12.4 Letter to Leeds University Business School

LEEDS UNIVERSITY BUSINESS SCHOOL

TO: PROFESSOR KEITH GLAISTER AND JOHN HILLARD
FROM: CRYSTAL LING ZHANG (EMAIL: BUSLZH@LEEDS.AC.UK)
SUBJECT: PROPOSAL FOR A STUDY OF HOW WELL OVERSEAS STUDENTS ADAPT TO LIVING AND STUDYING IN LEEDS
DATE: 16/01/2003
CC: PROFESSOR JOHN HAYES AND DR CHRIS ALLINSON

I am writing to enquire if LUBS would be willing to support a small study that would produce data indicating whether, and to what extent, overseas postgraduate students experience difficulties adapting to living and studying in Leeds.

I am a PhD student working under the supervision of Professor Hayes and Dr Allinson. My research is on the malleability of cognitive style and involves a study of how moving between cultures affects the way Chinese students process information. I collected data about cognitive style from most Chinese and some other overseas students enrolled on postgraduate programmes in LUBS at the beginning of the session. In February/early March I plan to measure the cognitive style of Chinese students again and also to collect data about how well they are adapting to living and working in Leeds. I will follow this up with in-depth interviews with twelve students (the six who have adapted most effectively and the six who have adapted least effectively) in order to identify factors that might account for these differences.

The February survey could easily be extended to include all home and overseas postgraduate students registered on taught courses in LUBS. This could produce valuable information about which categories of student experience most problems adjusting to life in Leeds.

If LUBS is willing to support this survey I will undertake to assist with its administration, code and enter the results and produce a preliminary report for the School. As part of my PhD research I will also undertake the follow-up interviews with

twelve Chinese students. If this produces valuable information LUBS might want to undertake a similar follow-up exercise with selected students from other countries.

I believe that the response rate to the survey will be higher if the questionnaire is distributed by the Business School and if it is seen to have official approval. I also feel that some form of incentive for participating in the study, such as a prize draw, would help to improve the response rate.

I would like to propose, therefore, that the School distributes and collects the survey-questionnaire and provides £150 for a prize draw. In return I will extend my study to include all home and overseas students registered on taught programmes, analyse the results and present them in the form of a report to the Taught Postgraduate Subcommittee of the LUBS Teaching and Learning Committee (or some other group as appropriate). A copy of my questionnaire is attached. For overseas students it will include three well validated scales; the Zung Self-Rating Depression Scale, the Ward and Kennedy Sociocultural Adaptation Scale and the Cognitive Style Index. For home students it will contain the Zung scale (to provide a bench mark against which to assess how well overseas students are adapting) the CSI and, possibly, some modified form of the Ward and Kennedy scale. The draft introductory statement to the questionnaires indicates how the prize draw might be organised and includes information about confidentiality.

I look forward to hearing from you.

Crystal Ling Zhang (buslzh@leeds.ac.uk)

