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~~THE ROLE OF~~ CONTROL IN THE NEGOTIATION OF PRIVACY: A SOCIAL COGNITIVE APPROACH TO SELF-DISCLOSURE

Thesis to be submitted to the University of London
For the degree of Doctor of Philosophy

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This thesis is dedicated to Stefano and Mila

ABSTRACT

This thesis adopts a social cognitive approach to examine the factors that influence individuals' willingness to disclose personal information. The first part of the thesis is concerned with consumers' willingness to disclose in the particular context of e-commerce. The second part is a test of a theoretical model on the role of self-efficacy beliefs in the regulation of personal boundaries.

Theoretical approaches and research findings on self-disclosure in interpersonal relationships and the applications of this literature to e-commerce are reviewed. In the first study of the thesis, consumers' views on privacy in e-commerce are analysed with long qualitative interviews. Data suggest that consumers' willingness to disclose is related to risk awareness of broader social context and to individual differences in perceived control over interactions with companies. Results also indicate that consumers' perception of risk has a potentially negative effect on trust in commercial organisations that operate over the Internet. This argument is experimentally tested with a study conducted over the Internet assessing the impact of awareness of data mining, reputation and rewards on willingness to disclose topics of different degrees of perceived sensitivity. A questionnaire is developed for use in the experiment with items of different perceived sensitivity. Experimental results reveal a mediating effect of awareness of risks. Awareness of risks decreases willingness to disclose by negatively affecting the perceived trustworthiness of well-reputed companies.

In the second part of the thesis, two studies test the hypothesis of individual differences in perceived self-efficacy as an explanation of variation in self-disclosure. Results indicate that perceived social efficacy, interpersonal control and perceived self-disclosure efficacy contribute to openness and, conversely, to privacy concerns. On the basis of research that showed the role of persuasion from significant others as an important source of self-efficacy beliefs, the hypothesis that expert feedback on previous performance might affect subsequent disclosure is explored with two experiments. The findings suggest that motivation to disclose can be enhanced by means of expert feedback.

The final chapter discusses the possible role of self-efficacy beliefs in a consumer context. Hypotheses about the phenomenon of consumers' awareness of risks and the need for control as an expression of the emerging salience of self-efficacy beliefs in boundary regulation are advanced and a future research agenda is outlined.

PUBLICATIONS BASED ON THIS THESIS

Olivero, N. (2000)[1]. Dinamiche di consumo e società dell'informazione, (Consumption dynamics and information society). *Micro & Macro Marketing, 3,* 329-341.

Olivero, N., and Lunt, P. (2003)[2]. When the ethic is functional to the method. The case of e-mail interviews. In E. Buchanan (Ed.), *Readings in Virtual Research Ethics: Issues and Controversies.* Idea Group: Hershey, PA.

Olivero, N., and Lunt, P. (in press)[3]. Privacy versus willingness to disclose in e-commerce exchanges: the effect of risk awareness on the relative role of trust and control, *Journal of Economic Psychology.*

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[1] Chapters one and eight.
[2] Chapter four and appendix 1.
[3] Chapter four.

TABLE OF CONTENTS

CHAPTER 4   **The Effect of Risk Awareness on the Relative Role of Trust and Control**

CHAPTER 5   **The Mediating Role of Risk Awareness: Relationships between reputation, trust, rewards and willingness to disclose over the Internet**

CHAPTHER 8   Discussion of Findings and Conclusions

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

Overview

1.1 Introduction

The theme of self-disclosure has been a focus for psychological research since the late nineteen sixties. Self-disclosure has been studied within clinical psychology as an important factor for psychological well-being and in social psychology as fundamental for the management of interpersonal relationships. In recent years a number of studies are again focusing on the themes of self-disclosure and privacy to contribute to the solution of the problem of privacy concerns over the Internet.

As new electronic communication networks, and especially the Internet, are increasingly pervasive new issues for social sciences have emerged. According to the Office for National Statistics by the end of 2003, 48% of households in the UK (12.0 million) could access the Internet from home, compared with 32% in the 2000 and with just nine per cent (2.2 million) in the 1998. Research has followed technological innovation to the extent that new literatures have developed with specific focus on information technologies. Among various research areas, marketing has studied the Internet to evaluate opportunities for market research, strategic communication and commerce (see Barwise, Elberse and Hammond, 2002). For instance, research has compared degrees of expertise with the medium and explored differences between users and non-users to identify the key factors for the prediction of Internet adoption and usage (Hammond, Turner and Bain, 2000; Hammond, McWilliam and Diaz, 1998). Consumer psychology has shown the significant role of non-functional

dimensions such as impulsive buying and emotional involvement, for the prediction of on-line shopping (Dittmar and Long, 2001). Whereas authors from both marketing and consumer psychology have signalled that an important obstacle to the further development of e-commerce is the growing concern about privacy (Culnan and Bies, 2003; Hinde, 1999; Hoffman, Novack and Peralta, 1999; Lunt, Kokkinaki and Moore, 1999; Olivero, 1999). The theme of privacy in e-commerce is an important issue for consumer research and, as a phenomenon that affects modern individuals, is also significant for social psychology.

Technological innovation creates new contexts for privacy invasion. Digital networks have amplified the opportunity to gather, diffuse, exchange and also abstract data. Data collection for marketing purposes but also fraudulent activities of data interception are increasing, raising the issue of privacy as a new important challenge not only for e-commerce but for society in general. Indeed, the theme of privacy in electronic communication fostered academic research oriented by two main goals 1) the protection of privacy as an individual right 2) the identification of solutions for collecting private information for the benefit of marketing strategies. Most of the studies focusing on privacy protection promote the design of data protection measures aimed at controlling the use of data and access to databases (Agre and Rotemberg, 1997). Alternatively, in the attempt to collect valuable information, the marketing literature emphasises the opportunity to negotiate privacy (e.g. Hagel III and Rayport, 1997) and thus contributes to the study of the need for privacy as

affected by social-psychological factors within a relational dimension.

The importance of examining the factors that influence the need for privacy in a relational context emerges because of the implications that privacy concerns potentially have on the effectiveness of marketing strategies. Although interactive communication provides the ground for relational strategies useful to collect data for consumer profiling (Blattberg and Deighton 1991; Deighton, 1996; Peppers and Rogers 1993), privacy concerns lead consumers to resist marketing strategies by avoiding the disclosure of personal information (e.g. Hagel and Rayport, 1997; Hinde, 1999; Phelps, Nowak and Ferrel, 2000). Several papers indicate that consumers are starting to react as a party in a conflict, advocating the right of privacy and erecting barriers against information collection (e.g. Hagel and Reyport, 1997; Hinde, 1999; Moon, 2000; Milne 2000; Phelps, Nowak and Ferrel, 2000; Culnan and Bies 2003).

In order to design strategies for the collection of consumer information in e-commerce exchanges, scholars have looked at the conditions under which individuals might be willing to reveal personal information. This research interest has led to the review of previous psychological contributions to the construct of self-disclosure in interpersonal relationships with the aim to apply these findings to understand the factors that affect consumers' self-disclosure. As a result of this renewed attention toward the theme of self-disclosure, the marketing literature has developed two diverse perspectives reflecting equivalent controversial positions in the psychological literature. One perspective explores the opportunity to solicit personal information by adopting

the rules of reciprocity and liking (Moon, 2000). According to this perspective, self-disclosure is a behavioural automatism that responds to specific stimulations. In the early studies by Jourard (1971), self-disclosure was seen as following rules of reciprocity and liking such that people reply to others' disclosure with the same amount of intimacy and develop liking as a consequence of disclosure.

A second interpretation focuses on the impact of situational factors, such as trust in the recipient and perceived risk, on the willingness to disclose (Culnan and Armstrong, 1999). Research that emphasises the role of situational factors generally concludes that by providing consumers with control over what information is disclosed it is possible to address privacy concerns by developing trust relationships that complement the collection of consumer data (Culnan and Armstrong, 1999; Culnan and Bies, 2003). This literature draws on the conceptualisation of privacy offered by Westin (1967), for which privacy is the ability of an individual to control the access that others have to personal information. However, this research does not clarify the role of perceived control in willingness to disclose and does not provide any empirical evidence for the argument on the relationship between control and trust.

The present thesis extends on the literature outlined above by adopting a social cognitive approach according to which both environment and cognition both play a role in determining self-disclosure. Self-disclosure as studied in the present thesis refers to different kinds of information: (a) personal information that is needed to realize on-line purchase transactions, (b) data mining that

consumers might not be aware of and other personal information that consumers might be asked for by companies outside purchase transactions, (c) information about personal history, opinions and feelings that is disclosed in interpersonal interactions. The thesis consists of two parts. The first part focuses on consumers' willingness to disclose in the particular context of e-commerce and refers specifically to type (a) and type (b) of information as described above. Results from the studies presented in part one of the thesis emphasise that environmental factors such as risks associated with data mining affect consumers' perception of risk and willingness to trust at a relational level. Risk awareness appears to motivate consumers' need for control over their exchanges with companies suggesting a social cognitive model of the interaction between social/environmental changes, consumers' personal factors and willingness to disclose versus needs for privacy. The second part of the thesis extends on previous conceptualisations of self-disclosure and privacy in an interpersonal context by assessing the impact of self-efficacy beliefs on boundary regulation behaviours. The second part of the thesis focuses on the type (c) of information as described above, that is, on personal information about personal history, views and emotions that is disclosed in an interpersonal context with the exception of study 4.7 where the motivation to disclose to a company is also tested.

The thesis begins with a review of the social psychological literature on self-disclosure. Self-disclosure emerges as a goal oriented behaviour, the regulation of which reflects the dialectic tension between needs for revealing

17

versus concealing. Further, the reviewed literature suggests that the need for concealing, which corresponds to the need for privacy, is dependent on the perception of risk of individual vulnerability, which, in turn, is affected by trust in the recipient. Next, previous accounts of consumers' willingness to disclose in e-commerce are reviewed and the application of the social psychological literature on self-disclosure to the e-commerce context is discussed.

The first study of the thesis adopts an inductive approach in order to evaluate previous viewpoints and develop new explanatory hypothesises on the basis of the participants' account. Data from qualitative interpretative research contribute, first, by clarifying the relationship between trust and control and, second, in the development of the hypothesis of the role of control within a social-cognitive framework for the explanation of willingness to disclose and privacy concerns.

Adopting the interpretation of Social Cognitive Theory (Bandura, 1986), in which human agency results from a relation of mutual causation between social context, cognition and behaviour, this thesis argues for the role of environmental risk awareness on attitudes and behaviours towards e-commerce exchanges. It is suggested that risk awareness, which is described in the sociological literature as an important consequence of the diffusion of information in modern societies (e.g. Giddens, 1990), might have implications for consumers' psychology and for their relations with organisations. It is suggested that if the risk associated with disclosure is dependent on the recipient in interpersonal relationships, then consumers' perception of risk will include

both a relational dimension but will also potentially negatively affect trust in organisations that operate over the Internet. This argument is experimentally tested with a study conducted over the Internet that shows the significant negative effect of risk awareness on willingness to disclose through its impact on the perception of trustworthiness.

Furthermore, the hypothesis of individual differences in perceived self-efficacy as an explanation of variation in willingness to disclose is developed. The review of previous self-efficacy research suggests that is plausible for self-disclosure behaviours to be explained within a system of mutual influences of social efficacy beliefs, similar to those described for prosocialness as significant determinants of social and psychological adjustment (Caprara and Pastorelli, 1993; Caprara *et al.* 1999; Caprara, Gerbino, and Delle Fratte, 2001). Indeed, since self-disclosure is a major way to communicate prosocialness and given the established relationship between self-disclosure and well-being (e.g. Macdonald and Morley, 2001), it is hypothesised that self-disclosure behaviours might also be influenced by social efficacy beliefs. In part two of the thesis, this hypothesis is therefore elaborated and tested within an analysis of socio-cognitive influences where perceived social and interpersonal control and perceived self-disclosure efficiency contribute to openness and, conversely, to privacy concerns. In addition, on the basis of the literature that indicates verbal persuasion from significant others as an important source of self-efficacy beliefs (Bandura, 1986), the hypothesis of the impact of expert feedback on subsequent willingness to disclose is experimentally tested and potential implications for

marketing and public policy are discussed.

The thesis concludes with a theoretical analysis that aims to integrate the findings from part one and part two of the thesis to propose a social cognitive explanation of consumers' need for control over personal boundaries. An agenda for future research is suggested based on the potential impact of risk awareness on consumer identity and the hypothesis that risk perception in modern societies might make self-efficacy beliefs even more significant.

1.2 Structure of thesis

The thesis consists of two parts. In part one of the thesis previous psychological literature on self-disclosure and the literature that explores self-disclosure with computers and privacy issues in the e-commerce context is reviewed. Further, in part one, studies that examine the theme of consumers' willingness to disclose in e-commerce are presented. More specifically, the next chapter (chapter 2) of the thesis discusses conceptual issues related to self-disclosure and privacy in interpersonal relationships. Different viewpoints presented in the literature are evaluated and empirical findings on "reciprocity" and "liking" effects and on situational variables such as trust in the recipient and perceived risk are reviewed. In the third chapter the literature on self-disclosure with computers and the literature concerned with the issue of privacy in e-commerce and that suggested potential solutions for eliciting information from consumers are reviewed. In the fourth chapter the interpretative and inductive method of grounded theory is

adopted to explore consumers' perspectives on privacy and willingness to disclose in e-commerce. Results from this study are integrated with the sociological literature on risk and consumer studies to postulate that awareness of environmental risk influences the relative impact of trust and control on consumers' self-disclosure. In chapter five the effect of awareness of environmental risk on perceived trustworthiness and willingness to disclose is tested experimentally.

In part two of the thesis, a theoretical model on the relation between self-efficacy beliefs and boundaries regulation in an interpersonal context is developed and tested. First, in chapter six, the literature on Social-Cognitive Theory and the self-efficacy construct is reviewed. Chapter seven discusses empirical findings and previous literature on both self-disclosure and self-efficacy to elaborate the hypothesis of a social cognitive model of influences for the explanation of self-disclosure behaviours and tests this hypothesis with two studies. Further, in chapter seven the test of the hypothesis that motivation to disclose might be enhanced by means of expert feedback is attempted with two experiments.

In the conclusion section of the thesis, chapter eight discusses the results of the thesis, evaluates limitations of results and suggests directions for future research. Chapter eight attempts an integration of the findings from part one and part two of the thesis. A theoretical analysis is presented that draws on the sociological literature on risk to interpret the impact of social changes on consumer psychology. A social cognitive account of the factors affecting consumers' willingness to disclose and privacy concerns is developed. First, the potential

relation between consumer empowerment, environmental risks and need for control is discussed. Second, the decrease of trust towards organisations is described as an emerging issue. Third, changes in consumer identity as a consequence of the diffusion of mass communication are hypothesised. Fourth, the argument that modern consumer' identity makes self-efficacy beliefs salient for the explanation of boundary regulation behaviours is advanced and, thus, the need for further research for the test of the above hypotheses is emphasised. Finally, in the appendix section, methodological, epistemological and ethical implications of the e-mail research method adopted in study 1.4 (study 1, chapter 4) are outlined.

PART I

CHAPTER 2

Self-Disclosure and Privacy

In Interpersonal Relationships

2.1   Introduction

In the attempt to identify solutions for eliciting consumers' personal information, marketing literature has drawn on different theoretical perspectives on self-disclosure. This chapter reviews the literature on self-disclosure and privacy in interpersonal relationships to clarify the key factors for the explanation of self-disclosure and evaluate how they might be applied to the e-commerce context.

The study of self-disclosure was introduced by Sidney Jourard who saw the absence of self-disclosure as implicated in a wide variety of psychological problems. He hypothesized that an optimal level of self-disclosure was psychologically necessary for a healthy personality (Jourard, 1971). The relation between self-disclosure and psychological well-being has been largely confirmed in the literature that followed the pioneering contribution by Jourard. Research indicates that lonely people are also people who fail to disclose to others (Chelune, Sultan and Williams, 1980; Berg and Peplau, 1982; Davis and Franzoi, 1986) and that there exists an inverse relation between self-disclosure and depression, social isolation and various conditions of psychological distress (Comer, Henker, Kemey, Wyatt, 2000; Hamid, 2000; Kahn, Achter, Shambaugh, 2001; Macdonald and Morley, 2001).

Besides this clinical research focus, Jourard's studies also contributed to a

social-interpersonal conceptualisation of self-disclosure. His experiments indicated cultural and gender differences in self-disclosure. Such as that women disclose more than men and that Americans disclose more than Germans (Jourard, 1971). Further, two findings, the *liking* effect and the *dyadic* (or reciprocity) effect, led to the growth of an extended literature that explored the mechanisms underlying or related to self-disclosure in interpersonal relationships. However, several investigators have challenged the assumption that self-disclosure always responds to rules of liking and reciprocity by pointing to the role of situational determinants such as trust in the recipient and perceived risk (e.g. Altman and Taylor, 1973; Rubin, 1975). If the existence of interpersonal rules and automatic behavioural responses governing self-disclosure has been a focus of debate in early self-disclosure research, more recent literature has emphasised the relevance of the impact of situational factors on self-disclosure behaviours. Consumer research that attempted the manipulation of 'liking' and 'reciprocity' for eliciting information from consumers (Moon, 2000) overlooked the influence that several contextual variables might have on consumer's willingness to disclose.

This chapter is concerned with the concept of self-disclosure. It relates the development of the theory in self-disclosure research to indicate the importance of a situational perspective that evaluates issues of risk and trust for the understanding of consumers' willingness to disclosure. The first section of the chapter outlines the various conceptualisations of self-disclosure in the literature. The second section reviews empirical findings on gender differences,

reciprocity and liking effects. In the following section studies that indicate the importance of situational variables and that criticize the reliability of the reciprocity effect are reviewed and the emergence of a contextual approach to the study of self-disclosure in interpersonal relationship is discussed. The last section describes the dialectical relation between self-disclosure and privacy as described in the interpersonal relationship literature and draws conclusions about the need to adopt a social context research approach conceptualising self-disclosure as a goal-oriented behaviour.

2.2   Definitions of Self-Disclosure and implications for research

The scientific conceptualisation of self-disclosure in psychological research has historically faced many difficulties. Authors have adopted different theoretical perspectives for the study of self-disclosure, leading to heterogeneous research approaches and contrasting results. The diversity of the possible research perspectives in the study of self-disclosure becomes apparent when reviewing the various definitions of self-disclosure presented in the literature.   For instance, one conceptualisation focuses on the communicative role of self-disclosure. According to this perspective, self-disclosure has been defined as *"The act of making yourself manifest, showing yourself so others can perceive you"* (Jourard, 1971a, p.19). This definition includes all the possible channels of human communication, even the non-verbal ones. Some authors have supported this interpretation stressing the role of body language as a major channel for

self-disclosure. In line with this conceptualisation, the assessment of self-disclosure takes into account a number of factors, which might contribute to openness. For instance, Montgomery (1981) suggests evaluating self-disclosure by examining five elements of openness: (1) Negative openness, covers openness in showing negative feelings or disagreement. (2) Non-Verbal openness; bodily postures, facial expression, vocal tone, movements; (3) Emotional openness; the ease with which feelings and moods are expressed; (4) Receptive openness; willingness to listen to other's disclosure; (5) General-style; the overall impression that someone creates.

In contrast, many authors limit the conceptualisation of self-disclosure to verbal disclosure. For an empirical definition of self-disclosure, Chelune (1979) suggested reducing the study of self-revelation to that information which is communicated verbally. According to this perspective: *"Self-disclosure can be defined as any information about himself which Person A communicates verbally to Person B"* (Cozby, 1973, p.73). Worthy, Gary, and Kahn (1969; p.59) further restricted the concept with regard to the intent of the disclosure and the private nature of the topic. Self-disclosure has then been defined as: *"That which occurs when A knowingly communicates to B information about A which is not generally known and is not otherwise available to B"*. Other definitions have suggested the critical relation between self-disclosure and relationships with others, defining self-disclosure as the *" uncoerced exchanging of personal information in a positive relationship"* (Allen, 1974, p. 198).

A main issue of debate for the definition of self-disclosure is whether the

26

concept should be distinguished by self-reference behaviours. For example, by examining over forty definitions of self-disclosure, Fisher (1984) notes than many researchers have included in their operational definition features that can be associated with self-disclosure but that belong to a larger class of behaviours named self-references: self-presentation; self-misrepresentation; self-description; self-revelation; repetition of information about oneself. The author suggests that self-disclosure should be discriminated by self-reference and be defined by the following attributes: (1) Truth; (2) Sincerity; (3) Intentionality; (4) Novelty; (5) Privacy. According to Fisher (1984), Self-Disclosure should then be defined as *"Verbal behaviour through which individuals truthfully, sincerely and intentionally communicate novel, ordinarily private information about themselves to one or more others"* (p. 288).

However, research has shown that attributes such as sincerity, truth and intention cannot be easily isolated in the context of interpersonal relationships when social rules lead people to disclose about themselves in the attempt to reach relational goals (Duck, 1998). Indeed, some authors stress the goal-oriented nature of self-disclosure in their conceptualisation. Hinde (1997), for instance, suggests that communication patterns are often the main stimulus to the disclosure of personal information. According to this perspective self-disclosure can be intentional without being autonomous; it can be oriented to impression management or be the result of social pressure.

The conceptual definitions described above suggest the variety of interpretations that the concept of self-disclosure has received in the literature.

As indicated by Chelune (1979), to the extent that each definition operationally refers to a different subset of behaviours also different research questions and assessment strategies have been adopted. Altman and Taylor (1973) explain that the main obstacle for the scientific conceptualisation of self-disclosure is related to the complexity of the construct. They argue that the concept of self-disclosure may refer to both descriptive information and evaluative information that people communicate to others. Further, self-disclosure can be explored in different contexts of interpersonal interaction (e.g. between partners, friends, strangers) and measured along different dimensions such as depth (intimacy of information exchanged) and breadth (amount of information exchanged) (*ibid.*, 1973).

This variety of research approaches makes comparisons across studies difficult and contributes to some inconsistencies in the findings presented in the literature. This is the case in studies that attempted to validate Jourard's (1964) sixty-item self-disclosure questionnaire (JSDQ). The JSDQ measures self-disclosure as 'past disclosure to specific target persons on a specific set of topics'. Studies that failed to validate the JSQD had computed correlations with scores obtained through measures that implied different operational definitions of self-disclosure, such as, for instance, the time that subjects spent talking in a interview (Vondracek, 1969). In contrast, scholars who adopted the same operational definition have reported significant positive correlations (Wilson and Rappaport, 1974). Moreover, definitions of self-disclosure have reflected the "state versus trait" controversy in psychological research. As it is further described in the next sections of the chapter, earlier studies conceptualised self-

disclosure as behaviour reflecting individual differences such as gender and race. Whereas more recent approaches examined the social-situational conditions that influence the phenomenon of self-disclosure across individuals.

2.3   Toward a social interpersonal conceptualisation of self-disclosure

Jourard developed a number of questionnaires to measure self-disclosure by asking people to tell how much of the personal information listed in the questionnaire they had already disclosed to certain other people. Jourard and his colleagues used this method to test differences in the amount of disclosure between several groups. These studies produced a series of findings on personal differences in self-disclosure. For example that American students disclose more than students from England (Jourard 1961), Puerto Rico, the Middle East and Germany (Jourard 1971). Whites disclose less than blacks and women disclose more than men (Jourard and Lasakow, 1958).

Gender differences have been the focus of the majority of studies that aim to uncover individual differences in self-disclosure. Some studies have shown substantial differences and provided support to the thesis that women disclose more than men while others have not. Narrative reviews of these studies concluded that the findings on sex differences in self-disclosure were inconclusive (Cline, 1982; Hill and Stull, 1987). Hill and Stull (1987) argue that situational factors, such us target person, may account for inconsistencies in research on gender differences. With a meta-analysis of 205 studies Dindia and

Allen (1992) confirm that gender differences in self-disclosure exist. Across these studies women disclosed more than men. However, a number of moderator variables were also found. Target person and assessment strategies moderated the effect of sex on self-disclosure. Sex-differences were greater, with women disclosing more than men, with same-sex partners. Furthermore, when the target person was a stranger, in self-report studies men reported to have disclosed more but women's disclosure was higher if observational measures were adopted.

Another finding from Jourard shifted the research agenda from the study of individual differences toward the dynamics that explain self-disclosure in interpersonal relationships. For both males and females the output of disclosure to a certain target person appeared to be correlated to what this person had disclosed to them. Jourard called this finding the "Dyadic Effect": "disclosure invites or begets disclosure" (Jourard, 1971, p.14). Another result that stimulated research interest in self-disclosure as a variable involved in interpersonal relationships processes is the so named "Liking Effect". With a study on a sample of nursing college faculty members, Jourard (1959) reported a significant correlation between the scores indicating the degree of liking for a target person and amount disclosed to the same person.

Findings on the reciprocity effect (or dyadic) and the liking effect stimulated the study of self-disclosure as a factor involved in relationship formation and development, contributing to the heterogeneity of the approaches in self-disclosure research. Indeed, since Jourard's contributions, self-disclosure has been studied both within clinical research as a factor that affects

psychological wellbeing and within social psychology for the study of interpersonal relationships. As Chelune (1979) pointed out, the literature on self-disclosure is characterised by a continuous shifting between clinical and social interpersonal approaches and between individual traits and social context contributions.

2.4 The Liking Effect

The role that self-disclosure plays in relationship processes has been shown by research that finds a relation between Self-Disclosure and Liking. Since Jourard's results, many other studies have confirmed the same positive association and further investigated the liking effect. Research has showed that people disclose more to those whom they initially like. For instance, Worthy, Gary and Kahn (1969) conducted an experiment in order to evaluate the effects of attraction on disclosure. In this study four groups of women were asked to interact with each other in a free discussion session for ten minutes. After this period they had to indicate their liking for one-another. In a second phase of the experiment each subject was provided with an identical set of seven questions involving disclosure of different intimacy levels. Participants were then required to answer each of the questions by sending a note to each other subject having to choose the recipient of theirs disclosures. Results showed that the intimacy of the disclosure was affected by liking. There was a positive relationship between the intimacy of the disclosure and the degree to which the recipient was liked.

Research has also revealed that we tend to disclose more to people who show that they like us. In an experiment by Taylor, Altman and Sorrentino (1969) subjects were assigned to four different conditions corresponding to different interpersonal feed-back over a period of time: (1) P-P continuous positive feedback; (2) N-P initially negative but later positive; (3) P-N initially positive and later negative; (4) N-N continuos negative feedback. The results showed positive effects of P-P and N-P condition on self-disclosure and that the impression of being liked increased when disclosure obtained disclosure (positive feedback condition) and decreased in the negative condition.

Other findings within this body of studies indicate that liking can be a consequence of self-disclosure, that is, we tend to like those who disclose personal information to us (Archer, Berg, and Runge, 1980; Taylor, Gould and Brounstein, 1981) and we like people as a result of disclosing to them (Berg and Archer, 1983; Burger, 1981). However, research also indicates that the relation between liking and self-disclosure is not always a positive one. Some authors have argued for a negative association (e.g. Cozby, 1972) or no relation at all (e.g. Dindia, Fitzpatrick and Kenny, 1997) between liking and self-disclosure.

Despite a long research tradition, scholars have failed to uncover a reliable pattern. As for the lack of consensus on the definition of self-disclosure reported above, the literature on self-disclosure and liking has been described as complex and confused (Berg, 1987). Using a meta-analytical procedure Collins and Miller (1994) demonstrated that these contrasting results on the liking effect were associated with the adoption of different study paradigms and dependent

on the way in which self-disclosure was operationalized. This research also shows that several contextual variables moderate the relation between liking and disclosure. For instance, the same disclosing statement can be evaluated more or less positively depending on the circumstances (Collins and Miller, 1994). Altman and Taylor (1973) argued that especially in first encounter situations the disclosure of too much information or intimate information is often perceived as inappropriate. Indeed, results of self-report studies that used subjects in on-going relationships differ from those of laboratory studies and field studies that normally involve acquaintance or first encounter paradigms. First encounter situations do not originate high correlations between liking and self-disclosure as on-going relationships do (Collins and Miller, 1994). Furthermore, Chelune (1979) indicated that research has adopted five different parameters for the evaluation of self-disclosure: 1) amount or breadth of information disclosed; 2) intimacy of the information revealed; 3) duration of disclosure; 4) manner of self-presentation and 5) self-disclosure flexibility. As pointed out by Collins and Miller (1994), assessment techniques normally measure only one or two parameters and results on the liking effect vary according to the parameter adopted.

The disclosure of personal information is differently evaluated also according to sex-role stereotypes that see females as being more open and concerned with intimacy topics. Derlega and Chaikin (1976) indicated that gender stereotypes influence the judgement of the appropriateness of disclosure and lead to different liking effects. Women who do not disclose enough, and

men who disclose too much, can be judged negatively.

In conclusion it appears that contrasting results on the liking effect are a consequence of a lack of homogeneity in the evaluation of self-disclosure and of research designs, which have differently accounted for the impact of cultural factors on interpersonal dynamics.

2.5 The Reciprocity Effect

The norm of reciprocity refers to people's tendency to return self-disclosure to others in proportion to the amount and/or intimacy of self-disclosure they receive (Altman, 1973). Three different interpretations of the reciprocity effect have been presented in the early literature on self-disclosure (Kleinke, 1979). A first assumption was that disclosure reciprocity is mediated by liking. According to this hypothesis the recipient of a disclosure, feeling liked and trusted by the discloser, will like the discloser and reciprocate with further disclosure (e.g. Jourard, 1959). However, research indicates that although liking can lead to self-disclosure, it is not accurate to argue that self-disclosure reciprocity is dependent on liking or attraction. In a number of studies reciprocity of self-disclosure to a disclosing person was not explained by liking for that person. In these studies liking was either uncorrelated with self-disclosure or described as not plausible (Cozby, 1972; Jones and Archer, 1976; Rubin, 1975; Worthy, Gary and Kahn, 1969).

An alternative interpretation is that people reciprocate disclosure

according to a social exchange principle. This hypothesis assumes that disclosure creates an obligation. Receiving someone's disclosure is seen as a valuable and rewarding experience for which the recipient feels obliged to return something of equivalent value (Worthy, Gary and Kahn, 1969). Furthermore, some theorists have suggested that self-disclosure reciprocity responds to a norm of equilibrium. For instance, Chaikin and Derlega (1974) argue that people aim to maintain equitable relationships where the ratio of reciprocal disclosure is balanced. Chaikin and Derlega (*ibid.*) demonstrated that subjects observing different interactions judged as more appropriate those interactions showing a reciprocal level of intimacy. In this experiment subjects were asked to read either intimate or non-intimate disclosure attributed to a speaker in conversation with a stranger. In the second phase of the experiment they were shown videotapes where the second speaker replied to the initial disclosure with either intimate or non-intimate information. The subjects were finally asked to judge the appropriateness of the disclosure. Results confirmed a general preference for the answer that matched the intimacy of the initial disclosure, while the rule-breaker who was judged more negatively was the one who returned high intimacy to low intimacy of disclosure.

The conceptual interpretation of reciprocity as a social norm led to the development of a third hypothesis, which sees self-disclosure reciprocity as a behavioural response that can be stimulated in laboratory settings. A number of studies have shown that reciprocity can be induced purely by modeling or demands in the experimental situation (e.g. Rubin, 1975). Interpretations for

these results suggested that the norm of reciprocity is a socially learned behaviour that participants in experiments follow in order to comply with the researcher (Kleinke, 1979). This third interpretation of the phenomenon of reciprocity suggests that a number of cultural and situational variables may influence people's willingness to reciprocate disclosure with other disclosure. In the next section, literature that criticizes the thesis of the reciprocity effect as a rule governing self-disclosure behaviours and that indicates the need to account for situational factors is presented.

2.6 The role of situational variables

Criticisms of the idea that disclosure can be elicited with reciprocity rules point to the limited generalisability of laboratory findings based on subjects' responses in low risk experimental conditions. This argument is based on the notion that self-disclosure is a socially desirable behaviour and that subjects in lab experiments reciprocate disclosure in order to please the experimenter (Archer, 1979; Rubin, 1975). Archer (1979) points out that the studies that support social exchange theory do not prove that an obligation for reciprocity exists. Rather, according to Archer (*ibid.*), these studies emphasize that disclosure under certain circumstances might be perceived as more appropriate. For example, a replication of Chaikin and Derlega's study showed that after the disclosure of an unpleasant experience subjects indicated that they prefer a show of concern or sympathy rather than a reciprocal disclosure (Archer and Berg,

1978).

Empirical studies that adopt situational approaches, varying the topics of disclosure and the kind of relationships between discloser and recipient, provide evidence against the hypothesis of reciprocal intimacy as an obligation (Archer and Berg, 1978). Participants in these studies did not reciprocate disclosure with the same amount of intimacy when they were faced with problems of trust as in natural social interactions (e.g. Rubin 1975; Archer and Berg 1978; Archer, 1979).

Rubin (1975) demonstrated how the rule of reciprocity could break down due to a lack of trust. He conducted a field experiment in the departure lounge of an airport. Subjects were approached by students and asked to participate in an experiment on writing styles. In one condition the student copied a self-disclosure message as an example of handwriting, while in the other the message was created after stopping to think. The "creation" condition was designed in order to raise concerns about the trustworthiness of the experimenter. The experimental design assumed that after receiving a very intimate disclosure from a stranger subjects would have doubted about the real purpose of the study. For both cases the three sub-conditions of low, medium or high disclosure were tested. In the case of the copied message results supported the typical reciprocity findings: subjects disclosed more after a high disclosure than after a medium one, and more after a medium than a low disclosure message. On the contrary, when the message seemed to be appositely created by the student, subjects didn't reciprocate to the higher disclosure with higher

disclosure. These findings show that, since obtaining an intimate disclosure from a stranger is not either expected or appropriate, in real situations people do not reciprocate disclosure automatically.

The literature that underlines the role of situational variables also indicates that self-disclosure reciprocity is affected by the stage of development of the relationship. According to the Social Penetration Theory (Altman and Taylor 1973), disclosure reciprocity is at its highest during the acquaintance process. Derlega *et al.* (1993) suggest that in the early stages of a relationship, when the exchange is strongly regulated by social norms, a moderate degree of reciprocity is particularly expected. In contrast, among friends or in other kinds of intimate relationships (e.g. family members) the rule of reciprocity seems to be translated into a more general listener role exchange.

Altman's and Taylor's Social Penetration Theory predicts that disclosure reciprocity is dependent on the stage of a relationship between two people, the intimacy of the topic to be disclosed, rewards and costs in the situation, individual differences and external factors in the situation (Altman, 1973). Altman and Taylor (1973) conceptualise self-disclosure as behaviour that is instrumental to relationship formation and development. People disclose personal information to form relationships and develop intimacy. Furthermore, Social Penetration Theory emphasises that self-disclosure is always accompanied by an element of risk. The disclosure of personal information involves becoming vulnerable to the others' judgments and therefore requires trust in the recipient. Self-disclosure behaviours are, according to the Social

Penetration Theory, dependent on both costs of vulnerability and relational benefits.

Self-disclosure emerges as a behaviour that can be oriented by interpersonal goals, influenced by motivational processes rather than being simply subjected to rules of reciprocity. Self-disclosure literature has gradually evolved toward the recognition that self-disclosure can be fully understood only through a situational approach allowing the researcher to evaluate the reciprocal influences between environmental factors, motivation, perceived risk and possible individual differences. In the next session literature that contributes to the conceptualisation of self-disclosure as resulting from a dialectic process between motivation to openness and need for privacy is examined and implications for the present thesis are drawn.

2.7   The regulation of Self-Disclosure and Privacy as a dialectical process

In the interpersonal relationship literature, self-disclosure is described as being both beneficial and risky. If on the one hand self-disclosure is fundamental for the formation and the management of interpersonal relationships, on the other the possible uses that the recipient can make of the information constitute a risk for the discloser (Altman and Taylor, 1973).

Research indicates that the potential vulnerability which may result from self-disclosure gives rise to privacy concerns, leading people to avoid the disclosure of information that can expose them to the others' judgements or

control (Baxter and Wilmot, 1985; Derlega, Petronio, Metts and Margulis; 1993; see Duck 1998). For instance, Macdonald and Morley (2001) found that the non-disclosure of emotional experiences to partners and friends was associated to the anticipation of negative interpersonal responses such as labelling and judging. The maintenance of privacy on certain topics can be also aimed at safeguarding the relationship. As showed by Baxter and Wilmot (1985), privacy about certain information is strategically maintained in close relationships. In this study participants reported avoiding disclosing information concerned with the state of the relationship, the norms of the relationship, any conflict inducing topic, earlier relationships with members of the opposite sex and negatively valenced topics to their partner.

Studies that describe how people regulate self-disclosure in order to avoid negative outcomes, such as being judged or damaging a relationship, provide support to the conceptualisation that sees privacy and self-disclosure as two expressions of the same dialectic process for boundary regulation. A theoretical interpretation of the dialectic relation between privacy and self-disclosure was first presented in the 1970's by Irvin Altman. Since then, some authors adopted a similar conceptualisation to emphasise the tension between private and public in the context of relational communication and investigate how people face contrasting needs for privacy with relationship partners (Baxter and Montgomery; 1996; Rawlins, 1992). Whereas, more recently, Petronio (2002) has integrated Altman's contribution within a theoretical model (Communication Privacy Management Theory) that aims to explain the rules

underlying the dialects of boundary regulation.

Altman (1975) describes the regulation of self-disclosure and privacy as an interpersonal boundary process by which people manage their level of contact with others. In contrast with the approaches that conceptualise self-disclosure and privacy as two different concepts, isolated from one another, Altman proposes that self-disclosure and privacy are inseparable constructs that should be interpreted within a unified dialectical model. Petronio (2002), specifies that a dialectical model of privacy is one that focuses on the tension between the needs of both revealing and concealing. Further, Petronio (2002) emphasises that the meaning of disclosure is embedded in the concept of privacy. There cannot be disclosure of personal information if there is no privacy on certain information. Self-disclosure always involves giving up some degree of privacy. As well as the concept of privacy relies on the idea that there is a need to conceal certain information rather than disclose it (*ibid.*).

Altman's theoretical conceptualisation of privacy combines the insights of work on "social penetration" (i.e. studies on how patterns of self-disclosure change over time) and the findings of studies of territorial behaviour suggesting that people exercise control over the frequency and closeness of physical approaches made to them by others (e.g. Altman, 1975; Altman and Chemers 1980). Under this perspective, the ability or failure to regulate personal boundaries is an important contributor to self-definition. The perception of being able to control interaction with others provides positive information about one's competence to deal with the world and maintain a sense of individuality. In

Altman's words:

"...privacy mechanisms define the limits and boundaries of the self. When

the permeability of those boundaries is under the control of a person, a sense of

individuality develops. But it is not the inclusion or exclusion of others that is

vital to self-definition: it is the ability to regulate contact when desired. If I can

control what is me and not me, if I can define what is me and not me, and if I

can observe the limits and scope of my control, then I have taken major steps

toward understanding and defining what I am. Thus privacy mechanisms serve

to help me define me. " (Altman 1975: 50; italics added).

The importance of the concept of control in boundary regulation is

emphasised also in the Communication Privacy Management Theory by

Petronio (2002). According to Petronio, people want to be in control of what

information is disclosed. The need to feel in control over the regulation of

boundaries is primarily explained as an attempt to avoid vulnerability while

pursuing the benefits associated with revealing private information (*ibid.*).

Authors who move from a similar dialectic perspective indicate that through the

regulation of self-disclosure people can maintain distance from others in order to

avoid risks or, conversely, develop closeness in order to pursue relational goals

(Derlega *et al.* 1993). Hinde (1997) points out the dialectic between openness

(which can expose people to stigmatising or disruptive experiences) and

closedness as following:

"Relationships depend on communication and sharing which involve

exposing the self. Exposing the self, however, increases vulnerability. Permitting

oneself to become vulnerable demands trust in the partner. And beyond that, the maintenance of some areas of privacy may be essential for personal integrity." (Ibiden, p. 158, Italics added).

Among the rules that, according to Communication Privacy Management theory (Petronio, 2002), regulate the degree of concealing and revealing there is the risk-benefit ratio criteria. Following the social exchange principle introduced by Altman and Taylor (1973), Petronio argues that people take into account expected advantages and disadvantages from granting or denying access to privacy boundaries. Moreover, Petronio suggests that the motivation toward the possible benefits that can derive from disclosure has an important influence in determining the extent to which disclosure may be a positive option. People regulate privacy boundaries according to their motivations. For instance, disclosing behaviours may result from the motivation to establish intimacy with a relationship partner, from the need for self-expression, from the intention to elicit the other's disclosure and pursue a variety of relational goals (*ibid.*).

As described above, authors who adopt a dialectic conceptualisation of privacy and self-disclosure suggest that individuals maintain privacy and withdraw from social interactions in the attempt to avoid the risk of being exposed to the others' control (Altman and Taylor, 1973; Altman, 1975; Derlega *et. al.* 1993; Hinde, 1997). According to Petronio (2002) the possibility of risk explains the significance of the theme of control in the management of privacy. People need to exercise control on the ratio of risks and benefits deriving from disclosure. On the basis of their goals and the benefits they expect, people seek

to control how much vulnerability they are willing to experience.

Authors have suggested that the protection of personal privacy responds to both a need for risk avoidance and a need to exercise control over environmental influences by safeguarding autonomy (Altman, 1975; Hinde, 1997). The role of privacy in maintaining a sense of identity separated from the environment is outlined by the literature that describes the condition of deidentification that is typical of people in total institutions such as the army. People who live in communities, where privacy is limited, experience reduced sense of identity and lack of autonomy (e.g. Kelvin, 1977).

A similar conceptualisation of privacy, as a function of the individual's control over external influences for preserving personal identity, has been advanced by micro-sociologist Ervin Goffman. In Goffman's theory, individuals build their social identity by regulating physical (and psychological) boundaries that enhance privacy versus proximity and shared knowledge. Using the metaphor of the theatre, Goffman (1959) conceptualises the existence of a backstage, which corresponds to a private sphere where certain information about the self is preserved from the others' knowledge. The maintenance of separate spaces, that is, the maintenance of the privacy of personal information is useful for the exercise of power and for the management of impressions. By regulating personal boundaries, that is, by controlling the degree of concealing and revealing, individuals can exercise control on the impact they make on the social environment.

In the foreword to Petronio's (2002) book "Boundaries of Privacy", Irvin

Altman remarks that, although the issue of regulating privacy has always been central for the management of interpersonal relationships, people are now facing new challenges as a result of technological advances. Altman underlines the emerging conflict between the benefits of openness and the risks for individual privacy in the new information society: *"How do we strike a balance between the incredible positive opportunities to reach out to others made possible by modern technology, versus the dangers of losing the ability to control and regulate what others may know or have access to about us?...Or, as I have stated in my research – how can we achieve "selective control over our openness and closedness to others"?"* (in Petronio, 2002, pg.14; italics added).

In Altman' view, the theme of control is central in the process of boundary regulation. By regulating self-disclosure, people exert control over their own sense of identity and over their impact on the environment. Globalisation and technological advancements seem to put individuals' control on privacy boundaries at risk. The context of e-commerce emerges as a particularly challenging environment for the individuals' abilities to regulate the permeability of personal boundaries.

From this review of the literature on self-disclosure and privacy it becomes apparent that the study of self-disclosure behaviours in the context of e-commerce relationships between consumers and firms must account for issues of control and perceived risk. Furthermore, the conceptualisation of self-disclosure as a goal-oriented behaviour suggests the need to evaluate those factors that might motivate consumers to give away some degrees of privacy and

be willing to disclose.

2.8 Summary of Chapter 2

A number of heterogeneous approaches to the study of self-disclosure is presented in the literature. Different conceptualisations of self-disclosure led to a variety of research perspectives and assessment techniques, complicating the translation of the construct into scientific terms.

The conceptualisations that self-disclosure has received focus on the modes of communication, the contents and the aims. Self-disclosure has been equated with the concept of openness and defined as any act of communication by which individuals reveal themselves to others. Most of the definitions, however, have limited the conceptualisation of self-disclosure to the verbal act of revealing personal information. Self-disclosure has been discriminated by self-reference behaviours as characterised by attributes such as privacy, intentionality and truth of the information disclosed. Whereas the definitions that focus on the aims of self-disclosure dispute that people disclose according to communication patterns and in the attempt to reach relational goals.

The first studies of self-disclosure outlined cultural and gender differences. These studies fostered academic research on individual differences in self-disclosure, which particularly confirmed that women disclose more and more intimate information than men. However, a significant amount of research developed to uncover the mechanisms that explain self-disclosure in the context

of interpersonal relationships. This shift toward a social interpersonal approach was due to the findings of the liking and the reciprocity effects. Since then a large number of studies aimed at verifying the relationship between liking and self-disclosure and the extent to which self-disclosure responds to norms of reciprocity. Contrasting positions on the liking effect have been shown to be a consequence of the adoption of different study paradigms and conceptualisations of self-disclosure. Furthermore, literature indicates that the relation between liking and self-disclosure is modulated by situational variables such as context and aim of the interaction and the stage of development of the relationship.

The importance of situational variables in contrast with the perspective that sees self-disclosure as a behavioural automatism responding to a rule of reciprocity also emerged. Interpretations of the reciprocity effect have claimed that people reciprocate disclosure according to a liking-attraction paradigm, that self-disclosure creates an obligation and that reciprocity is a socially learned behaviour that can be stimulated by modeling in experimental conditions. According to this last interpretation, reciprocity is an artefact of experiments conducted in the laboratory. Authors have argued that since reciprocity is socially desirable participants in experiments reciprocated disclosure in order to please the experimenter. Studies that compared low risk laboratory conditions to natural contexts of social interactions in which issues of trust were raised provided empirical evidence against the idea that self-disclosure can be elicited with reciprocity rules. In natural contexts people disclose, and reciprocate disclosure, in the attempt to pursue relationship aims but avoid disclosure when

it is not appropriate to the social situation and generally to avoid risks of vulnerability.

The risk of being exposed to others' judgements and control appears to be the main reason why people maintain privacy over certain information. According to the dialectical conceptualisation of privacy put forward by dynamic interactional perspectives (e.g. Altman, 1975, Petronio 2002), privacy derives from the active regulation of self-disclosure as an interpersonal boundary process by which people manage their level of contact with the others. Literature has underlined the conflict between the need to disclose personal information to develop relationships and the need for privacy that, in turn, corresponds to a need for control over external influences. The ability to regulate boundaries by preserving privacy has been described as an important contributor to self-identity. In particular, the maintenance of privacy over certain information is functional to the construction of a social identity by means of which people can manage relationships and exercise control over the environment. Authors have then emphasised that people need to feel in control on the risks-benefits ratio deriving from disclosure, in order to be able to determine the degree of vulnerability they are willing to accept while pursuing relational goals. Self-disclosure is regulated accordingly to a contextualised need for revealing or concealing.

For the purpose of the present thesis it emerges that for an understanding of the factors that can stimulate consumers' willingness to disclose in e-commerce issues of perceived risk and benefits should be taken into account.

Consumers' self-disclosure is conceptualised as a goal oriented behaviour resulting from a dialectic process between the need to control risks (which corresponds to the need for privacy) and the evaluation of potential benefits that have an impact on motivation. Further, this thesis will focus on the perceived risk associated with disclosure in e-commerce exchanges. The consumers' need for concealing as associated with the need to exercise control in the exchanges with companies will be evaluated and implications for the role of trust will be assessed.

CHAPTER 3

Consumers' privacy concerns and willingness to disclose in e-commerce

3.1 Introduction

As discussed in the previous chapter, self-disclosure and privacy are the expression of a dialectic tension between the need for revealing versus concealing, which is affected by envisaged risks and benefits associated with the act of disclosure. This conceptualisation requires accounting for situational factors and, thus, emphasises the importance to evaluate the impact of the social context in which the regulation of personal boundaries takes place. Drawing on this perspective, in the present chapter previous contributions on privacy concerns and willingness to disclose in the e-commerce context are evaluated.

Consumers' privacy concerns in e-commerce exchanges are an emerging theme in consumer research. Although there are studies in the human-computer-interaction and computer-mediated-communication literatures showing that people disclose more when the information is solicited by computers (e.g. Joinson, 1999; Weisband and Kiesler, 1997; McKenna and Bargh, 2000), academic and anecdotal evidence indicates that in an e-commerce context privacy concerns negatively affect consumers' willingness to disclose (see Culnan and Bies, 2003).

Since the diffusion of the Internet, marketing scholars have promoted and implemented new communication strategies to benefit from the opportunities made available by interactivity (e.g., Blattberg and Deigthon, 1991; Ellsworth and Ellsworth, 1995; Hoffman and Novack, 1996; Peppers and Rogers, 1993). Literature on relationship marketing emphasises the importance of gathering

accurate customer information and using it to address consumer satisfaction by means of personalised services and products or more efficient communication (e.g. Blattberg and Deighton, 1991). Interactive marketing, or one-to-one marketing, puts into practice relationship marketing principles by adopting new methods of on-line contact and data collection to organise individual data in customer databases and use them to build long-term, customized relationships with individual consumers (Blattberg and Deighton, 1991; Blattberg, Glazer, and Little, 1994; Deighton, Pepper and Roger, 1994; Bulgar, 1999).

Nevertheless, realisation of these marketing strategies is contingent upon the willingness of consumers to disclose personal information and thereby surrender part of their privacy. E-commerce literature indicates that privacy emerges as an important issue because of a fundamental tension between consumer and firm interests (Hoffman, Novak and Peralta, 1999; Culnan and Bies, 2003). Companies need to collect consumers' personal information to remain competitive while consumers find activities of data collection intrusive and perceive them as a threat to their right for privacy (*ibid.*).

Besides the attempts to build real conversations through interactive communication, activities of data gathering also involve the development of sophisticated data mining devices. By means of "cookies" and software designed to track user's movements over the Internet it is possible to monitor behaviours and preferences without the consent or knowledge of consumers. Research has shown that these new opportunities for marketing lead consumers to be more concerned about personal privacy. A number of surveys continuously

report that consumers are concerned about what companies know about them, how and to what purposes companies collect and use their private information (see Phelps, Novak and Ferrel, 2000; Culnan and Bies, 2003). Marketing attempts of data gathering are often perceived as infringements of privacy and boycotted by consumers who react by being unwilling to disclose personal information (e.g. Hagel and Reyport, 1997; Hinde, 1999; Phelps, Novak and Ferrel, 2000; Sheenan and Hoy, 2000). Furthermore, security issues such as risks of credit card frauds are an additional important concern for consumers over the Internet. Previous research has shown that security concerns are a significant negative predictor of involvement in on-line exchanges (Olivero, 1999).

In response to these consumer concerns there is a growing body of studies aiming to identify solutions for collecting valuable but private information. Among these studies two main approaches, reflecting the same different perspectives in self-disclosure research, emerge. One research perspective has focused on the interaction human-computer to evaluate the impact of liking and reciprocity effects on consumers' self-disclosure to a computer (Moon, 2000). Whereas the other approach accounts for the role of situational variables and emphasises the importance to establish a trust relationship with the aim to address privacy concerns (Culnan and Armstrong, 1999; Culnan and Bies, 2003).

The human-computer interaction perspective to the study of consumers' self-disclosure in e-commerce draws on the computer science literature that is

primarily concerned with the question of how interfaces could be designed to optimise the user-system interaction (e.g. Höök, 1997; Soltysiak and Crabtree, 1998). Specifically, within this literature, a body of studies has recently focused on the implications of designing intelligent systems, named embodied conversational agents, that is, of computational artefacts aimed at the management of cooperative interactions with the user (Ball and Breese, 2000; Cassel, Sullivan, Prevost and Churchill, 2000).

Conversational software agents are often designed in the form of animated humanoids that use speech and gesture to emulate the experience of human face-to-face dialogue. These technological developments have fostered research for the identification and test of conversational rules that the agent should follow to model human conversation (Cassel and Bickmore, 2002). Most of the work done within this area adopts a system-centred approach, which implies a given model of human communication to which the system should adapt to by respecting conversational turns, memorising previous exchanges and even engaging in small talks (Cassel and Bickmore, 2002). According to this perspective, it is believed that by following certain interpersonal rules of communication it is possible to establish trust relationships with the user (Bickmore and Cassel, 2001; Dehn and Mulken, 1999). Using the same system-centred approach, Moon (2000) attempted to adopt the liking and the reciprocity principles, as described in the self-disclosure literature, in order to collect consumers' information via computers. In this chapter the limitations of this approach are discussed and the literature that provides arguments for the

adoption of a situational approach focusing on the individual and his or her motivations further outlined.

In the following section the literature on self-disclosure with computers is reviewed. Next, the chapter reviews the consumer and marketing literature that evaluates solutions for collecting consumers' information.

3.2   Self-disclosure with computers

Studies on self-disclosure with computers have been conducted that aim to evaluate the advantages and disadvantages of using computer forms, such as on-line questionnaires, for data collection.

An assumption of such studies is that the reduction of the social desirability effect in human-computer interaction will result in an increase of self-disclosure even for highly sensitive topics (see Joinson, 2003; McKenna and Bargh, 2000). Studies that confirm this hypothesis report lower scores on standard measures of socially desirable responding when participants are allocated to a computer-based questionnaire rather than to a pen and paper one (e.g. Joinson, 1999).

Since the diffusion of computers for communication the assumption that people will disclose more to a machine than in face-to-face interactions led to the adoption of computer forms when data to be collected were particularly sensitive in nature. For example, computers have been used for psychiatric interviews and for the assessment of health risk behaviours (e.g. Locke, *et al.*,

1992). Research has shown that medical patients report more undesirable behaviours, symptoms, sexual partners and provide more candid answers when interviewed by a computer than in face-to-face interviews (*cf.* Greist, Klein, and VanCura, 1973; Ferriter, 1993; Robinson and West, 1992).

However, as Weisband and Kiesler (1996) have noted, the literature that compared computer forms with other methods of data collection produced mixed conclusions. For instance, Lautenschlager and Flaherty (1990) found that more socially desirable responses occurred on a computer version of an attitude questionnaire than on a paper-and pencil version. Whereas a replication of this study found that there was no systematic difference between the two modes of data collection (Booth-Kewely, Edwards and Rosenfield, 1992).

To verify the hypothesis that computers increases self-disclosure Weisband and Kiesler (1996) conducted a meta-analysis of thirty-nine studies from 1969 to 1994. According to the hypothesis that the absence of social context cues reduces the perception of accountability, self-disclosure will be higher in conditions of visual anonymity. To test this hypothesis, differences between studies that compared computer forms with face-to-face interviews and studies that compared computer forms with pen and pencil forms were measured. Results indicated that self-disclosure was generally higher with computer forms and that the difference was particularly significant when computer-administrated questionnaires and face-to-face interviews were compared. Moreover, effect sizes were higher when forms solicited sensitive information and when medical patients were the respondents. The meta-analysis

also compared results over the years to account for technological change and different approaches of data collection. Results indicated a significant decrease over the years of the effect of computer administration on self-disclosure that was not explained by changes in the characteristics of the studies. The authors suggested that over the years respondents might have become more aware of data collection with computers and that this could have led to a decrease of the effect of visual anonymity on self-disclosure.

The computer mediated communication literature supports the thesis that visual anonymity does not always reduce the social desirability effect. In contrast, there is empirical evidence for the thesis that anonymity can lead to more socially responsive behaviours. For instance, Postmes and Spears (2002) show that individual anonymity leads to more gender stereotyping and behaviour when gender identity is salient. According to SIDE (Social Identity Deindividuation Effects) Theory, over the Internet, strategic self-expression depends on the culturally salient identities and on the relations of power with the audience (Reicher, Spears and Postmes (1995); Spears and Lea, 1994). In a study where participants communicated via computers, Spears, Lea and Lee (1990) manipulated the salience of group identity versus personal identity and found that identity salience interacted with computer anonymity to produce the strongest polarisation in the direction of the group norm when group identity had been made salient. The impact of cultural salient identities in computer communication is relevant for the explanation of self-presentation and impression management phenomena. Indeed, even the literature that focuses on

the theme of simulation in electronic communication shows that computer anonymity allows people to play out different roles in order to adapt to specific audiences (Turkle, 1995).

Over the Internet, respondents might be aware of the audience and provide socially desirable answers or avoid the disclosure of certain information as for other methods of data collection. Research on Internet research methods suggests that the relevance of issues of trust and willingness to disclose is also likely to increase as research participants become aware of risks of privacy violations over the Internet (Olivero and Lunt, 2001). Moreover, besides privacy issues, the diffusion of news about the lack of security and the fraudulent uses of the Internet has a negative influence on the way consumers relate to the medium. As will be discussed further, the notion that consumers are becoming aware of the use of the Internet for information collection, and that this may increase the perception of risk (see Weisband and Kiesler; 1996), has important implications for the willingness to disclose in e-commerce.

In the next section of the chapter, research that focused on the human-computer interaction without accounting for the effect of the perception of risk is evaluated and the need to study the social and cultural factors that affect the motivation to disclose is emphasised.

3.3   Liking and reciprocity effects for soliciting consumers' information with computers

The conceptualisation of self-disclosure as a behavioural automatism responding to rules of reciprocity and liking led scholars to hypothesise that similar mechanisms may help to collect consumers' data via computers (cf. Moon, 2000; Joinson, 2002). This assumption draws on human-computer-communication perspectives focusing on the interaction between people and machines. According to Social Response theory, people tend to treat computers as social actors (Nass et al. 1995; Reeves and Nass, 1996). Specifically, it is argued that when a machine has characteristics, such as communicative functions, which are usually associated with humans, people will respond with social attributions and will develop a relationship with that computer that is distinct from the relationship with the persons that are behind the machine. Further, Social Response Theory suggests that the interaction with a given computer has subsequent effects on future interactions with the same computer (Moon, 1998; Moon and Nass 1998).

Social Response theory provides the basis for research that aims to evaluate how self-disclosure dynamics will unfold in a human-computer context. Moon (2000) tested experimentally the effects of reciprocity and sequence on the likelihood that people will reveal intimate information about themselves to a computer. Specifically, he tested the hypothesis that participants in the experiment were more likely to divulge intimate information when the computer initiated the process of disclosure by disclosing some descriptive information first and when questions followed a socially appropriate sequence by escalating from superficial to intimate topics. The literature on self-disclosure reciprocity

does indeed suggest that disclosure is much more likely to occur when requests for information gradually escalate from low to high intimacy (Derlega *et al.* 1993; Dindia and Allen, 1995). Whereas when this pattern of escalation is violated the reciprocity principle has been shown to breakdown (Collins and Miller, 1994; Rubin, 1975). Further, in Moon's study a second experiment was conducted to test the occurrence of the liking effect, that is, whether intimate information exchanges affected behaviour in subsequent interactions with the same computer. Results proved that computers adopting a socially appropriate sequence of questions from superficial to intimate elicited more self-disclosure and that the exchange of personal information with a computer positively affected subsequent responses to the same machine.

These results indicate that in experimental conditions the rules of liking and sequence for reciprocity are observed in human-computer interaction. However, an issue of external validity emerges. This study cannot address the question of whether consumers would disclose in a real situation, in which there are no guarantees of anonymity and other factors such as lack of trust in the recipient or the rewards offered in exchange for disclosure might have different influences on behaviour (Moon, 2000).

The issue of lack of external validity is central to the criticism used against studies that proved the reciprocity effect in laboratory experiments. In these studies (e.g. Worthy, Gary and Kahn, 1969, Chaikin and Derlega; 1974), as in Moon's study, participants were fully aware that they were participating in an experiment. According to the modeling interpretation of reciprocity (Rubin,

1975), since self-disclosure reciprocity is a socially desirable behaviour, participants in experiments reciprocate disclosure in order to please the experimenter. In contrast, field studies in which the disclosure of personal information is associated with potential risks of vulnerability do not support the rule of reciprocity. Altman and Taylor (1973) drew on social exchange principles to claim that self-disclosure can only be explained within a situational perspective, as depending on variables such as trust in the recipient, risks associated with the kind of information to be disclosed and possible benefits in a given relational context (see Chapter 2).

As previously discussed, Moon's (2000) approach to the study of self-disclosure with computers reflects the system-centred approach that characterises research aiming at the design of intelligent software agents. Criticisms of the system-centred approach note that human behaviour is driven by motivations and expectations, which have an important influence on the user's willingness to engage in a conversation with an agent and, thus, on the opportunity to develop any kind of relationship (Spiekermann and Paraschiv, 2002). Studies that focus on consumers' perceptions to identify the factors affecting the user-agent interaction in real e-commerce situations show that higher privacy concerns are associated to lower levels of interaction with the agent (Spiekermann, Annacker and Strobel, 2001). These results indicate that, in contrast with a system-centred approach, for the design of systems for commercial uses the adoption of a user-centred approach focusing on the consumers' perspectives and their motivations is needed (Spiekermann and

Paraschiv, 2002). This research focus requires a shift from the study of the factors involved in the interaction between computers and isolated individuals towards an account of the issues affecting the relationship between consumers and companies within a given cultural and technological context.

The consumer and marketing literatures partially contribute to the understanding of privacy issues from a consumer perspective. In the following section the literature that adopted a situational interpretation of self-disclosure and privacy concerns in e-commerce is reviewed and the need for further research is outlined.

3.4 Situational interpretations of self-disclosure and privacy concerns in e-commerce

In the attempt to provide solutions for collecting valuable information, a growing number of marketing studies focus on the relational dimensions between organisations and consumers. This research perspective conceptualises consumers' self-disclosure as a "second exchange", as compared to the "first exchange" where goods or services are given in return for money or other goods (Bagozzi, 1975). In the "second exchange" consumers make a non-monetary exchange for intangible benefits such as improved services and personalised offers by disclosing private information to an organisation (Culnan and Milberg, 1998; Glazer, 1991; Milne and Gordon, 1993). Culnan and Milberg (1998) indicate that organisations that fail in managing the second exchange are likely

to raise privacy concerns and seriously prejudice their opportunity to build successful marketing relationships with consumers.

In the interpersonal relationship literature self-disclosure behaviours have been described as the result of a balancing test between costs and benefits (Altman and Taylor, 1973; Derlega *et al.* 1993). Marketing scholars who adopt the same conceptualisation for consumers' self-disclosure put emphasis on the need to address the perception of risk and provide benefits to consumers (e.g. Bloom, Milne and Adler, 1994; Caudill and Murphy, 2000; Culnan and Armstrong, 1999; Milne, 2000; Petty 2000; Sheehan and Hoy, 2000).

Marketing and public policy research has drawn on Westin's (1967) definition of privacy as the claim of individuals to determine for themselves, when, how and to what extent information about them is communicated to others, to suggest that privacy concerns can be solved by providing consumers with control over the use of the information they have disclosed to a company. Research has shown that consumers desire more control over their personal data (Milne, 1997; Phelps, Nowak, and Ferrell, 2000). Thus, scholars have promoted the adoption of fair information practices, which provide consumers with control over the disclosure and subsequent use of their private information, as a model for collecting information while pursuing consumer satisfaction (Culnan and Armstrong, 1999; Milne, 2000).

Fair information practises are procedures that reflect globally recognized standards of transparency for the ethical use of personal information as specified by European Union's directive on data protection and U.S. privacy law (see

Culnan and Armstrong, 1999). Research has shown that awareness of fairness procedures can reduce privacy concerns that are potentially raised by disclosure. For instance, Culnan (1995) found that people who were aware of name removal procedures (the opportunity to remove names from mailing lists) had lower concern for privacy than those who were not aware of these procedures. Similarly, Milne and Boza (1999) reported that perceived control was negatively related to privacy concerns and positively related to favourable attitudes toward direct mailing.

Further, authors suggest that by addressing privacy concerns, fair information practices allow firms eliciting disclosure and building trust relationships with consumers (Culnan and Armstrong, 1999). A widespread assumption concerns, indeed, the causal relation between the offer of control over information and the development of trust. Authors have argued that fair information practices signal that the firm can be trusted. According to Culnan and Armstrong (1999), if the firm's information practices are consistent with those originally declared consumers gain trust based on the positive experience, resulting in augmented self-disclosure and commitment to the relationship.

Besides the focus on strategies aimed at addressing the perception of risk, marketing scholars have remarked on the importance of providing benefits to consumers. According to the social-exchange principle people disclose personal information when benefits overcome costs. Among the factors that can stimulate consumers to undertake the risk of disclosing private information are the benefits of increased information, tailored offers, improved services, and

financial rewards (*cf.* Goodwin 1991; Milne and Gordon, 1993; Sheehan and Hoy, 2000). Furthermore, consumers are becoming more aware of the market value of their personal information and, as a result of this, they might be willing to trade their information against financial rewards (Hagel and Reyport, 1997; Wunderink and Benthem, 1999).

Some authors suggest that the offer of financial compensation, announcing to consumers that information has been collected, could function as a demonstration of transparency and reduce privacy concerns (Milne and Gordon, 1993; Sheenan and Hoy 2000). In contrast with this argument, other authors describe the trade of private information as potentially associated with feelings of mistrust and privacy concerns (e.g. Goodwin 1991; Hagel and Reyport, 1997; Hinde, 1999). This suggests the possible impact that the spread of information about marketing activities of collection and trade of personal data might have on the consumers' perception of risk.

The issues that have emerged from this review of the existing literature suggest a shift of the research focus from the human-computer-interaction, through the mediated context of exchanges, towards the broader social context and the theory of risk societies. In the next chapter, the role of awareness of environmental risks is evaluated in the light of the sociological literature that underlines the impact of technological changes on the perception of risk in modern societies.

3.5   Summary of Chapter 3

The phenomenon of self-disclosure over the Internet has been the focus of studies adopting different research perspectives. A number of contributions have explored the advantages and disadvantages of using computer forms for information collection. Many of these studies moved from the hypothesis that anonymous computer interactions decrease the social desirability effect leading to more genuine self-disclosure. The thesis that people tend to disclose more to a computer than when face-to-face has received empirical evidence from the literature. However, Weisband and Kiesler (1996) have also noted that in more recent studies the effect of increased self-disclosure with computers has diminished. This phenomenon has been interpreted as resulting from the increased awareness of the use of computers for information collection, which might lead respondents to be concerned about the social desirability of their answers. Computer mediated communication literature indicates that visual anonymity doesn't always correspond to lack of accountability. Empirical evidence shows that over the Internet strategic self-presentation depends on the social identities that are made salient and on the perceived relations of power with the audience (Reicher *et al.* 1995; Spears and Lea, 1994).

A human-computer-interaction perspective is at the basis of studies that evaluated how rules of self-disclosure and liking can be applied for soliciting consumers' information with computers. Moving from the assumption that people treat computers as social actors, research has shown that in laboratory experiments participants disclose more information when the computer follows

a socially appropriate sequence of questions from superficial to intimate and that, as according to a liking effect, the exchange of reciprocal disclosure with a computer affected subsequent interactions with the same machine. These findings have been criticized for lack of external validity. It can be argued that in a real context of e-commerce, consumers' responses and willingness to disclose will be affected by perceived risks and potential benefits associated with disclosure.

Indeed, the majority of the contributions on self-disclosure and privacy in e-commerce have adopted a situational perspective that focuses on the relationship between the firm collecting the information and the consumer. Scholars agree that in order to collect private information there is the need to address the perceived risk by providing control over information. Marketing and public policy authors have promoted the adoption of fair information practices that provide control over the disclosure and subsequent uses of private information in order to address privacy concerns and stimulate disclosure. It is also argued that, by providing control, fair information practices allow firms building trust relationships with consumers. However, the factors that should explain the effect of perceived control on trust and self-disclosure are not clarified in the literature.

Marketing scholars that conceptualise self-disclosure as resulting from a balancing test between costs and benefits also suggest that consumers will undertake the risk of disclosing private information for the benefit of increased information, improved services and tailored offers. Furthermore, literature has

underlined that as consumers become aware of the market value of information, they are likely to be willing to trade their disclosures against financial compensations. Concurrently it has been suggested that the awareness that information is collected and traded might be associated with feelings of mistrust and privacy concerns. As reported above, the awareness of the use of computers for data collection emerged as a possible explanation for the decrease of self-disclosure in computer forms over time.

A number of gaps and issues in the literature can be identified. The existent literature does not clarify how consumers perceive the trade of personal information and what the implications are of gathering information by offering financial benefits. Further, although the concept of control emerges as a key factor in the definition of privacy it is not clear how by communicating the offer of control over personal information firms would be able to elicit disclosure and establish trust relationships. Finally, further research is needed in order to understand the potential impact that the awareness of information collection and trade may have on the consumers' willingness to disclose. This issue is related to the implications that broader social changes might have on consumer identity and behaviour.

The next chapter seeks to clarify these gaps in the literature by adopting the inductive approach of grounded theory to explore the issues of privacy concerns and willingness to disclose from a consumers' perspective. In this study the impact of awareness on the motivation to disclose is explained in the light of the sociological literature that describes the effects of technological

changes on risk perception in modern societies.

CHAPTER 4

The effect of risk awareness on the relative role of trust and control

4.1 Introduction

Chapter 3 outlined the different research perspectives that explored the topic of self-disclosure with computers. The review of the literature on self-disclosure with computers indicates that users' awareness of information collection might decrease the possible positive effect of visual anonymity on self-disclosure. Awareness of information collection appears to be associated with a decrease in willingness to disclose. This raises possible research questions about the effects of environmental risk awareness on the way consumers perceive e-commerce exchanges. Based on the argument that willingness to disclose and privacy concerns might depend on perceptions of broader context, a qualitative study is conducted that explores consumers' views on privacy in e-commerce and attempt to clarify the influence of risk perception on the relations with companies.

In this chapter it is argued that consumers' awareness of environmental risks such as data mining activities and, more generally, the perception of risk that characterizes individuals in modern societies represents an additional important factor for the understanding of self-disclosure and privacy concerns in e-commerce. As it has been described, there are a number of issues and gaps in the existent literature. Consumers' willingness to disclose in e-commerce is a relatively new area of research, thus, the study presented in this chapter adopts an inductive research approach that don't test hypotheses but aims at developing new hypotheses or theory. The following section of the chapter discusses the

issue of consumers' awareness of environmental risk. Next, the study is presented and results evaluated in the light of previous literature. Finally, findings are discussed to outline new research hypotheses.

4.2 Consumers' awareness of environmental risks

According to the interpersonal relationships literature, the risks associated with disclosure are related to the uses that the recipient can make of the information disclosed (Taylor, 1979). Trust in the recipient has been described as one of the main factors for the explanation of the willingness to disclose (*ibidem*; Altman and Taylor, 1973; Taylor, Altman and Sorrentino 1969). However, the perception of risk over the Internet, and therefore issues of trust, extends the relational dimension between one company and the individual consumer. Information not only can be easily passed to third parties but can also be intercepted. Goodwin (1991) suggests that consumers' unwillingness to disclose can be explained by reference to a perceived lack of control over information on two different dimensions: environmental control (fraud and data mining activities) and information control (personal data that can be used for purposes other than the original or sold to third parties without consumers' permission).

This "double" source of risk challenges the assumption that by providing control over the use of personal information firms can successfully address privacy concerns and gain consumers' trust (e.g. Culnan and Armstrong, 1999). Activities of data interception potentially raise consumers' concerns about

security and privacy, with the result of diffusing a generalised mistrust toward the medium and increasing the degree of perceived risk for any Internet based exchange (Goodwin, 1991; Hoffman, Novak and Peralta 1999; Hinde, 1999; Olivero, 2000b). Empirical findings show that consumers who are aware of environmental risks such as activities of data mining are less willing to use the Internet for commercial exchanges (Graeff and Harmon, 2002; Olivero; 1999)

Moreover, social changes in the awareness of risks appear to strengthen the tension between relational dimensions and environmental sources of mistrust (Olivero, 2000b). According to the sociological literature, individuals in modern societies are increasingly aware of risks. New and traditional media contribute to the diffusion of information about risk, reinforcing the perception of risk and affecting the way people relate to technology and organisations (Beck, 1992; Giddens, 1990; 1991). Beck (1992) remarks that technology and science have created a risk society, where risks are not exclusively real dangers but also perceived risks. The main factor of change in modern societies is the increased awareness of risks, which results from a reflexive demystification of science. *"The history of the growing consciousness and social recognition of risks coincides with the history of the demystification of the sciences."*(Beck, 1992 p.59). Furthermore, Beck signals that social differences produce differences in terms of both risk awareness and risk exposure. Individuals that have better access to information will become more aware of risks and, thus, will be more likely to perform risk avoidance behaviours.

According to Giddens (1990) individuals in modern society react to the

increased perception of risk with a psychological orientation to scepticism. However interpretations of individuals' reactions to risk are somewhat contradictory. For instance, according to Giddens (1990; 1991), individuals respond to the awareness of risks with a psychological orientation to scepticism but avoid the paralysing contemplation of risks by adopting a generalised trust in expertise. Giddens's idea of generalised trust is criticized because in asymmetric market conditions, when there is awareness of risk and power inequalities, it is argued that commercial relationships do not always rely on trust (Samarajiva; 1998). A possible research question is whether awareness of risk, and the consequent scepticism, might affect the way consumers perceive their relations with companies in the e-commerce context.

The study presented next explores Internet users' views on privacy. Rather than testing predetermined hypotheses relevant to a specific academic domain, this study draws on the above interdisciplinary background (see chapters 2 and 3) and combines it with data collection for a grounded theory method of analysis. In the spirit of grounded theory, the analysis starts from a number of research questions but does not test hypotheses (see Glaser and Strauss, 1967).

The research approach adopted in this study reflects the original conceptualisation of grounded theory presented by Glaser and Strauss in "The Discovery of Grounded Theory" (1967). The grounded theory methodology derives its name from the practice of developing theory that is "grounded" in the data and differs from methods that rely on hypothesis testing and verification (ibid.). Glaser (1992) claimed that the research problem is discovered during the

analysis and that the grounded theory researcher should start the analysis with an

abstract inquisitiveness concerning the relevant issues, aim to discover

hypotheses or theory and should not be oriented towards verification (*Ibid.*).

This study is based on the idea that since consumer's self-disclosure in e-

commerce, as an emerging phenomenon, has not yet been fully explored in the

literature an inductive approach will allow the identification of salient issues.

Thus, theoretical sampling and coding processes aimed at exploring three main

research questions reported next, while maintaining a flexible approach towards

the data in order to allow the participants' perspectives to emerge during the

analysis.

On the basis of the literature that suggests to provide control over the use

of personal information to obtain consumers' disclosure and develop trust

(Culnan and Armstrong, 1999), a first research question is about: (1) the relation

between control and trust in the negotiation of privacy. To evaluate different

viewpoints on the implications of using financial rewards to elicit self-disclosure

(see Goodwin 1991; Hagel and Reyport, 1997; Hinde, 1999; Sheenan and Hoy

2000), a second research question is about: (2) the implications of offering

rewards against disclosure and how the trade of personal information is

perceived by consumers. Based on the argument that reactions to risk might

derive from perceptions of broader context, a third question is: (3) if and to what

extent the perception of environmental risks affect relationships with companies

and willingness to disclose.

Participants' accounts are interpreted in the light of the conceptual

background as well as according to contributions available in the literature that

emerged as relevant to the data collected (see Glaser and Strauss, 1967).

4.3   Study 1. 4: The effect of risk awareness on the relative role of trust and control

Twenty-three semi-structured long interviews were conducted. Interviews used a

research methodology based on repeated e-mail exchanges (see appendix 1)[1] and

were analysed by means of grounded theory (e.g. Glaser, 1978; Glaser 1992;

Glaser and Strauss, 1967; Strauss and Corbin 1990; Strauss and Corbin; 1998).

In addition, five face-to-face depth interviews were performed to follow up the

results of the grounded theory analysis.

Strauss and Corbin (1998) remark that in grounded theory analysis

interpretations should include the perspectives of the participants and take into

account the construction of meanings occurring in a process of reciprocal

shaping between researcher and informant. Moreover, they posit that grounded

theory research should involve a constant interplay between data collection and

analysis (*ibid.*). According to this idea, the interpretation of the data collected

should guide the collection of new data. In this way, the meanings that emerge

from the analysis result from a process of reciprocal influence between

participants' views and researcher's interpretations. This method of analysis

implies the adoption of an interpretative epistemology, which does not conceive

qualitative data as representative of a stable reality, which is out there, to be

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[1]In order to provide a full account of the rationale that guided data collection, the implications of using the e-

discovered by the researcher. Rather, this epistemological approach recognises, first, that the researcher effect cannot be avoided and, second, that, data represent meanings that are constructed and shaped during both collection and analysis. Repeated e-mail interviews are particularly suitable for collecting data according to this grounded theory approach. Indeed, thanks to the asynchrony of electronic mail, there is time to interpret the interviewee's answer and formulate a new question on the basis of the developing meaning. In this way, during data collection interviewee's self-disclosure can be carefully monitored and interpretations can further guide the interview (Olivero and Lunt, 2001; see appendix 1 on e-mail interviews).

Further, in this study, the use of repeated e-mail interviews allowed the conduction of long in depth-interviews. In e-mail interviews, interviewees have access to their previous answers. The asynchrony and the written format of e-mail interviews give interviewees the opportunity to read and think about the emerging contents. This stimulates self-reflection, which is normally an aim of in-depth interviewing (examples of verbatim extracts that illustrate the process of self-reflection are reported in appendix 1).

4. 3. 1   Recruitment of participants

Interviewees were recruited through "snowballing" among experienced Internet and e-mail users in both London and North of England. Experienced users were

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mail for conducting qualitative interviews are discussed in appendix 1.

recruited in order to study ready-formed attitudes and perceptions about the topics of investigation, ruling out, for instance, individuals whose privacy concerns could be associated with technophobia, resistance to technology or lack of experience. The aim was not to represent the online population as a whole but to investigate privacy and self-disclosure issues from the point of view of regular Internet users who have experience of the medium. Experienced users were not Internet experts but regular users who have either three years of experience and/or use WWW and email at least four times a week.

Also demographic criteria were not aimed at representing the general profile of internet users, rather they were defined in order to obtain a balanced representation of consumers of different age, sex, education and occupation. Further, the selected 23 participants did not represent a statistical representative sample, which was not sought since the long interviews aimed at obtaining an in-depth self-investigation about relevant issues rather than statistically significant findings.

Were recruited eleven males and twelve females, aged between 19 and 58; of which 7 were post-graduates, 10 were graduates and 6 had high school or no educational qualification. Thirteen participants were from London area and 10 from North of England. Occupations varied considerably among participants, from unskilled to managerial, including two students and three housewives. Given the topic of investigation, individuals who were employees of companies concerned with data mining, market research or consultancy and new media were not recruited. Participants needed to have daily access to e-mail and to

have the time available to participate in repeated e-mail exchanges (up to 15-16 exchanges during a period of two-three weeks). As an incentive it was offered £20 to be paid at the conclusion of the interview.

4.3.2   Interview Procedure

First, participants were sent an introductory e-mail explaining the aim of the research and the interview procedure:

"Hi ....,

Thanks for agreeing to help with this study. Before we get started I would like to introduce myself and tell you a bit about it all. My name is Nadia Olivero and I am doing some research at University College London.

This research aims to study attitudes toward privacy on the Internet. We will be talking about a number of different issues and to do this I will send you questions by e-mail for you to respond to. For this first e-mail I would like you to answer by writing a paragraph. I will follow that up with other questions. Write this first paragraph and answer the further questions in your own time., but please could you try to do so on the day you receive it. We will be exchanging e-mails over a period of two to three weeks.

Your opinions are very important for this research so please feel free to express all your ideas. I hope this will be an interesting and enjoyable time for you."

The first topic was prompted and the participant was asked to reply with a brief paragraph:

"Somebody says that companies use the Web for market research purposes to collect information about Web users. What do you think about this statement? I am interested in all your thoughts: feel free to write as much as you like and whatever you think can be relevant. You can give me examples, tell me about you personal experience, what have you heard etc...

Also feel free to e-mail me with additional information in case you come up with new ideas.

Thank you very much for your help! "

The language style chosen was aimed at stimulating a friendly and open communication. Content was oriented to give emphasis to the role of the interviewee. Participants were not treated as an object of study but the stress was posed on the co-operative and relational function. The model of interview adopted was indeed oriented to minimise status inequality cues in order to reinforce the sense of equal participation and reduce the risk of self-presentation to a powerful audience (see Appendix 1 on the e-mail interview method). This model of interview follows the guidelines suggested by feminist researchers who indicate the importance to establish rapport with the interviewee (see *ibid.*).

Interviews were semi-structured in order to ensure that a standard list of topics was covered in all interviews. The interview guideline aimed at covering

the following topics: 1) perception and knowledge of on-line data collection for marketing purposes; 2) attitudes toward on-line private information collection; 3) attitudes toward on-line self-disclosure and information exchange; 4) attitudes toward a third party involved in the negotiation of information between companies and users. However, interviewees' disclosure was allowed to flow freely, without imposing any limit on the amount or the content of the information provided. A part the first topic that was prompted to all the interviewees in the first message, the other topics prompted did not follow a pre-established order but were introduced by the interviewer whenever the developing meanings offered the possibility of connection. Sample questions are: *"Hi D. , thanks very much for your answer. You mentioned that you use the Internet to get useful information and then you added 'many companies do it too, they take advantage of users data that are exchanged over the Internet'. How do you think companies take advantage of users data?"; "Hello E. in your previous message you wrote that you are wary of registering with your details because they are probably passing your name to other companies. Can you tell me what made you enter the (...) competition?"*. Since interviewees could control the answering time the length of exchanges varied considerably; three interviews were protracted for more than six weeks and the number of the exchanges of the interviews varied among 17 and 24 messages. None of the participants met the interviewer before or during the interview.

4.3.3   Data Analysis

As according to the Grounded theory model indicated by Glaser and Strauss (1967) the process of analysis takes place in two stages. First during the conduction of the interview the emerging meanings are constantly monitored, both in the light of the main research questions reported earlier and of new issues reflecting participants' views. During this phase the researcher writes memos about emerging interpretations and starts comparing data across different interviews to search for similarities and differences that can describe the complexity of a phenomenon and suggest explanatory hypotheses. This allows the researcher to integrate analysis with further data collection (*ibid*). Second, once the interviews are completed data analysis consists of a series of activities (Glaser and Strauss, 1967; Strauss and Corbin, 1990; Turner, 1981): 1) to develop conceptual labels placed on verbatim descriptions (also named incidents); 2) to develop categories of concepts at a more abstract level of classification. In later stages the analysis involves a constant revision of the categories developed, by merging categories that express similar concepts or splitting a category if it represents different important concepts; 3) to write definitions of the emerging core categories with reference to their properties and dimensions; 4) to write memos about ideas and theoretical explanations that are integrated with the memos produced during the conduction of the interviews; 5) to create links across core categories to define conceptual relationships and individuate theoretical accounts on the basis of the memos and the definitions produced; 6) to make diagrammatic representations and/or a descriptive account

of the links between core categories.

The above activities are used in three phases of analysis named Open Coding, Axial Coding and Selective Coding. The aim of open coding is to analyse data in detail by comparing single descriptions for both differences and similarities. Descriptions (or incidents) that are considered to be similar in nature and/or meaning are grouped under the same concept label (Strauss and Corbin, 1988). In axial coding, categories are related to subcategories thereby reassembling the data that were fractured during open coding. However, open and axial coding are not necessarily sequential. Indeed, during open coding, the structure of relationships between categories begins to emerge when coding descriptions into categories and these are recorded in memos as the coding proceeds (*ibidem*, Strauss, 1987). The emerging relationships between categories allow distinctions to be drawn between main categories and their subcategories. Subcategories describe properties and dimensions of the phenomena represented by the main categories. Later, with selective coding, the major categories are refined and integrated to form a more abstract theoretical scheme or "theory" (Strauss and Corbin, 1998).

4.3.4 Open Coding

Descriptions of discrete events considered similar in nature and/or meaning were initially grouped under conceptual labels (see Table 1. The examples provided in Table 1- 5 are extracts of verbatim as they were originally written). Eleven

categories were developed from the initial concepts (Table 1). Specifically, the concept labels "Lack of trust in the Internet", "Internet as a lucrative commercial environment" and "Internet as an insecure environment" were merged to form the category "**Internet misuse**". The events described in this category share the property of representing the Internet as an unsafe environment where individuals and organizations could act illegally or pursue financial benefits in a way that might conflict with users' interests. The concept labels "environmental complexity" and "relationships with on-line companies versus off-line companies" were merged to form the category "**Internet as abstract system**". The incidents described in this category represent the Internet as a complex environment, where the countless number of people, information exchanged and activities performed make it difficult to control. Descriptions of people and companies taking advantage of the Internet for their own benefits emphasise the element of risk associated with lack of control over the environment. In relation with this issue, a preference for exchanges with companies well established off-line was expressed. Organisations that were also well established off-line were perceived as more "real" than those on-line based only. A third category, "**information collection awareness**" was obtained by merging together the concept labels "knowledge of methods for information collection" and "consumer awareness". The incidents in this category indicate that consumers are aware that companies use the Internet to collect and share data for marketing purposes. Descriptions varied in the degree of technical knowledge about the methods and the concerns resulting from this awareness. High levels of technical

knowledge of the methods used for the collection of data, such as when the use

of cookies was described, were associated with explicit expression of concern

that personal information could be extracted and used for consumer profiling. A

more generalized concern due to a feeling of lack of privacy was expressed

when the awareness of information collection was less technical (e.g. *"I don't*

know how it works but seems like someone is watching us..I don't feel

completely safe").

The descriptions included in the category **"commodification of**

information" indicate that awareness of information collection is related to the

knowledge that personal information can be traded as a commodity with

exchange value, being a source of revenue for companies. A fifth category was

obtained by merging the conceptual label "benefits from information collection"

into **"acceptance of information collection for marketing purposes"**. These

descriptions showed that the acceptance of the collection of consumer

information was dependent on the perceived benefit of receiving commercial

information and offers. In these cases information collection for consumer

profiling did not raise privacy concerns since it was not perceived as potentially

harmful for the individual. On the contrary, participants underlined the

advantage of receiving more tailored commercial offers in the context of a

balanced and manageable exchange. Similarly, the descriptions included in the

category **"disclosure traded against rewards"** showed a pragmatic attitude on

the part of consumers who were willing to disclose personal information if they

were properly rewarded. However, the information that is paid for was seen as

more likely to be sold to third parties. Therefore, the trade of personal information was said to be limited to certain information, whose disclosure was not perceived to be particularly risky.

The incidents of the conceptual label "perceived risk for different types of information" were merged in the "**privacy concerns**" category. These incidents indicated that privacy concerns were dependent on perceived risk. Overall, privacy concerns were associated with data collection without the consent of consumers and to specific types of sensitive data whose disclosure could be particularly risky (e.g. medical data). As shown by the descriptions included in the "**consumers' reactions**" category, privacy concerns lead consumers to react against information collection by adopting avoidance strategies and by making up false details. The category named "**need for control**", was obtained by merging together the concept labels "privacy preferences" and "need for control over the use of the information". In this category incidents showed that consumers express the need to gain control over the methods adopted to collect information and over the type and the use of the information collected. The descriptions included in the concept label "type of research method affects consumers' willingness to provide personal information" were merged in the "**value of time**" category. These descriptions indicate a perceived contradiction between time consuming activities that are needed to increase security or to have access to information (including registration forms by means of which companies collect consumer data) and, on the other side, the desire to save time, which is presented as an important reason for using the Internet. This means that

consumers are unwilling to fill in long questionnaires or that, in principle, they appreciate when data can be stored on the site for future accesses. However, they are also concerned about the security of their data and thus annoyed by having to adopt time-consuming security measures. Finally, the last category identified at this stage of the analysis was named "**trust versus control dynamic**". The incidents included in this category were prompted by asking people to describe a hypothetical third party in charge of the negotiation of information between companies and consumers. These descriptions indicate that, as an alternative to a trusted third party (i.e. governmental body), consumers considered the possibility of exchanging information through a commercial entity that could provide them with control over the use of the information disclosed and offer rewards.

Table 1. Conceptual Labels

1) **lack of trust in the Internet** (e.g. *"the Internet could come up with false info because you can never tell who is saying the truth on the net"*; *"On the Internet people lie for the sake of it"*; *"I mistrust what and how information transmitted over the web is used"*;

2) **Internet as a lucrative commercial environment** (e.g. *"Internet is becoming one of the most commercial environments"*; *"on the Internet there is always an advertising revenue"* *"over the Internet money is the main goal, people act unethically for money "*);

3) **Internet as an insecure environment** (e.g. *"Internet is unsafe, your credit card details can be stolen", " too many people use the Internet to commit frauds"; " there are dangers that because you can't see you cannot control either"*);

4) **knowledge of methods for information collection** (*"e.g. companies collect information with on-line questionnaires, or they ask to register for a certain service and they use this information for consumer profiling"; "Companies use cookies to get information on what sites users go to"*) ;

5) **acceptance of information collection for marketing purposes** (e.g. *" I don't have any problem if marketers collect information and use it to improve commercial offers"; "It's OK if I can get some good offers and for that companies need only some of my details "*);

6) **privacy concerns** (e.g. *"Tracking user's movement when visiting web sites is an activity about which I would be very concerned, I believe that used indiscriminately it can violate our basic right to privacy"*);

7) **consumers' reactions** (e.g. *"Register with your details to access a site: -when is not necessary- makes me angry. I try alternative sites or make up false details!"*);

8) **privacy preferences** (e.g. *"When offering information you should be allowed to refuse any questions which you may consider private or confidential and it should be made very clear to what purpose the information is to be used"*);

9) **consumer awareness** (e.g.*"I am aware that the "tick this box if you do not want us to inform you of other products/services that we feel may interest you" is there and it makes me feel distrustful and wary"; "When you have to fill in your detail: I am aware that the information will be transmitted to other companies which I am not happy with"*);

10) **perceived risk for different types of information** (e.g. *" I would never put my telephone number on anything"; "my disclosure depends on the information required, I am unlikely to disclose medical information"*);

11) **type of research method affects consumers' willingness to provide personal information** (e.g. *"The length of the questionnaire should be kept to a minimum, as some people will not bother if it is too long. Also, if they have done it before, info should automatically be printed out so that they do not have to type it again, but changes can be made to it if needed"*);

12) **value of time** (e.g. *"there are web sites where you can accumulate points and thus earn money by logging on to them. I have not tried them because it entails registering my e-mail details, which is far too time-consuming"; "adopting security measures takes time but time saving is also the reason we use the medium"*);

13) **commodification of information** (e.g. *"companies sell/swap consumer information to make a profit"; "my personal details means money for others!"; "information collection brings commercial gain for the organizations targeting me"*);

14) **disclosure traded against rewards** (e.g. *"If it was something I was interested in or where I could win something I would give out info"; "I would agree to disclose personal information if it meant some reward"*);

15) **relationships with on-line companies versus off-line companies** (e.g.*"companies just on-line are less real and less reachable; "I prefer to give my details to companies that are also off-line providing an already established relationship or knowledge of the company"*);

16) **third party as a mediator agent for the exchange of information** (eg. *"the negotiator should be trustworthy, a governmental body that act in the interest of consumers"; "I would like a third party that charges the company and pays me a fee for the information I disclose under the condition that I can control how the information is used"*);

17) **need for control over the use of the information** (e.g. *"I would like full control that the information given is not passed to others"; "I would expect to have a definite control over my personal information"*);

18) **environmental complexity** (e.g. *"for the majority of the people on the web it is its sheer size and diversity of material available that forms its basic attraction. But on the other hand, sometimes, it is difficult to keep under control all this information "; "Internet is a huge source of information that is passed to the countless number of people that take advantage of the webs knowledge"; " I believe everything will became more and more sophisticated and complex, like with these tracking systems which identify your area of interest by logging the web site visited"*);

4.3.5 From Axial Coding to Selective Coding

Relationships between categories were explored to identify main (or core) categories, which represent the central themes of the analysis, and subcategories that describe properties and dimensions of the core categories. Specifically, categories were compared to each other in order to identify those, that being conceptually related, describe different aspects of the same phenomenon (i.e. core category). Four core categories were identified: INTERNET AS ABSTRACT SYSTEM; COMMODIFICATION OF INFORMATION; ATTITUDES TOWARD PRIVACY; CONTROL AS A CONDITION FOR DISCLOSURE. Below are reported the definitions (description of the incidents of the subcategories and their conceptual relationships) of the core categories. Examples of the concepts included in these categories are provided in Tables 2, 3, 4 and 5.

4.3.6 Core Categories

1) INTERNET AS ABSTRACT SYSTEM

The incidents included in the category "**Internet misuse**" appeared to be conceptually related with the descriptions of "INTERNET AS ABSTRACT SYSTEM". Specifically, the view that the Internet provides a context for

fraudulent activities or for pursuing commercial aims by eluding regulation and control (examples 3, 4, 5, and 6 in Table 2) helps to explain the perception of risk that is associated with the complexity and abstraction of the medium. Participants who reported mistrust and awareness of risks also indicated a preference for exchanges that provide some degree of protection against the vulnerability experienced over the Internet. Protection was sought by avoiding the uncertainty of exchanges with unknown companies and/or by limiting the disclosure of "sensitive information" to face-face interactions (examples 1 and 3 in Table 2).

Table 2. Internet as Abstract System

1. *"Companies that are just online, appear to be a lot more 'virtual' - i.e. less real or reachable. Therefore if there was a problem with some information being disclosed then it may be more difficult to gain dialogue with the company to express an opinion or complaint. I would much prefer to deal with a large company that you know will have an image to maintain and would be against having bad publicity. I don't think any online exchange can be considered to be trustworthy! Except maybe with a company that you have business with - e.g. bank".(male, 34).*

2. *"I would be more inclined to give personal information to a clicks and mortar company providing that I know the company concerned or have had some dealings with them. In this circumstance my decision as to whether to give any details would depend upon the sort of sales material or marketing initiatives I would be subjected to. If say it was a car manufacturer and they were proposing to keep me in touch about their latest models and I were considering buying a new car in the next twelve months then I would be happy to give them details. I would be much more circumspect about giving details to a web based company. If the company were unknown I would be very unlikely to offer any details. However just like shops on the High Street one becomes familiar with certain sites and if one were impressed with the service and/or information provided then I would be OK about giving details. As an example I regularly visit a site called ......, I like the site find the information useful and have in addition to giving them my name and address I have listed my share holdings so that I can check my portfolio each day." (female, 39).*

3. *"The internet is still not infallible, as was shown by the hackers that penetrate the NASA website just as the space shuttle was docking with the Mier Space Station. If I was totally convinced, then I would be happy to exchange less personal information over the internet, but would like a meeting face to face for the most sensitive issues" (female, 31).*

4. *"I feel that the use of the internet can be an invasion of people's privacy if it is used for more than market research purposes. The information can be used to restrict a person's freedom, e.g. in Chile with the dictatorship of Pinochet. ... I think Web users should be given the realization that anyone can get hold of their name, and address by a warning as they begin using the Net" (female 19).*

5. *"I am uncomfortable that my every move could be tracked & this would then reduce my privacy & I feel, be an infringement on my civil liberties. However, I also think it is a risk associated with using the internet and perhaps part of the price associated with its convenience" (male 41).*

6. *"the net is a mine field of information. It is constantly updated with the latest information, which is therefore passed on to the countless number of people that take advantage of the webs knowledge" (male 34).*

2) COMMODIFICATION OF INFORMATION

The incidents included in the categories "**information collection awareness**" and "**disclosure traded against rewards**" illustrate the properties of the phenomenon identified as "COMMODIFICATION OF INFORMATION". The knowledge of the methods adopted to collect information, including tracking activities used to monitor users' behaviour among web sites, was associated with the awareness of the commercial aims behind data collection and to a correspondent scepticism (examples 7, 8 and 9, Table 3).

Table 3. Commodification of Information

7. *"Companies collect the information, to the best of my knowledge, through either online surveys of the user's interests and online questionnaires, but also by logging the IP address of each user that visits the site, although this may not be directly personal, they will be able to tell which company or ISP the user is from" (male 25).*

8. *"Whenever you find a site that offers useful information you are invited to sign up to receive notification of items of interest. This signing on often involves providing personal information. Financial sites are a good example of this. This information would be of interest not only to the company operating the web site but others promoting products in the same area" "*
...this system if I understand it correctly helps the individual but its easy to see how useful marketing information could be gleaned". (female 38).

9. *"..companies use cookies to get information on what other sites users go to. I would say that ISP's could get lots of info. on web users but then again the Data Protection Act stops companies giving out info. on their customers?" (female 21).*

10. *"If it was something I was interested in or where I could win something I would give out info. However I would never put my phone number on anything. For example I would quite happily give out info. on what newspapers I read and what grocery products I buy as I already give this out by using rewards cards and it doesn't bother me. Sometimes I get these in the post and you get put in a draw to win £10,000 or for a state of the art video camera for filling it out. I also always tick the box that means they won't send your name to other companies otherwise you would get inundated with rubbish." (female 45).*

11. *"For example a company that just compiles personal information is likely to sell the information to other companies, e.g. if a questionnaire has questions relating to diet and health (do you drink, smoke etc..), then the information could be sold to insurance firms that deal with health policies.. So someone who drinks and smokes heavily may find it difficult to get health insurance. Personally, any information that I give on the web is not of a personal nature i.e. diet or social habits (i.e. in the interests section I tend not to tick pubs...). Of course there are reasons for concern - prejudice against people with hereditary illnesses, should such information be asked - they'd find it difficult to get health insurance. I guess I'm focusing on one aspect, but it could equally apply to other situations such as people with debt problems, or compulsive shoppers!"(male 29).*

12. *"The main issue is making sure that personal information such as health issues aren't used for anything other than research in to providing a better health service / drugs etc. and not given to profit making organizations that will then benefit as a result of personal loss to myself... I would probably be discouraged to give personal information for money - as that would increase the likelihood of the information being sold (I would think)" (male 58)*

Moreover the awareness that private information is a source of profit for companies was associated with to privacy concerns for information that could be extracted without consent, passed or sold to third parties and to the request for rewards against disclosure (example 10 and 11, Table 3). The relation between the perception of information as a commodity and privacy concerns was also pointed out by the incidents that described the offers of financial rewards as indicators of the likelihood of the information being subsequently sold, leading to avoid the trade of sensitive information (example 12, Table 2).

3) ATTITUDES TOWARD PRIVACY

In order to account for the variability of the positions expressed in the categories **"acceptance of information collection for marketing purposes"** and **"privacy concerns"** a core category named "ATTITUDES TOWARD PRIVACY" was adopted. These two subcategories vary around the axis of perceived risk, suggesting additional conceptual relationships with the other core categories "INTERNET AS ABSTRACT SYSTEM" and "COMMODIFICATION OF INFORMATION". On one side of the continuum, privacy concerns were expressed for: (1) the monitoring of users' movements among web sites; (2) fraudulent activities of information extraction; (3) information passed to third parties; (examples 13,14,15,18, Table 4). Privacy concerns were activated by the awareness that information could be passed to other companies and used for

various commercial purposes (link with "COMMODIFICATION OF INFORMATION"). For instance, the possibility of making a choice through options such as "box to tick", influencing this awareness, was reported to increase the feeling of suspicion (example 13, Table 4). On the other side of the continuum, incidents from the category **"acceptance of information collection for marketing purposes"** indicated that the use of the Internet for marketing communication and consumer targeting was not always perceived as an infringement to privacy (examples 16 and 17, Table 4).

Table 4 Attitudes toward Privacy

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13. *"I use the web regularly and have bought various products and made several enquiries about services/products. I am aware that when investigating insurance quotes and mortgages my details have been forwarded to other companies who have then contacted me back. You are then the possible target for a sort of internet 'junk mail'. I am also aware that the 'tick this box if you do not want us to inform you of other products/services that we feel may interest you' is there and it makes me feel distrustful and wary. Even if I have ticked the box to say that I do not wish my name and details to be forwarded, I still receive mountains of junk mail which I do not want. Where it originates from is impossible to say and therefore I do not feel completely 'safe'"(female 40).*

14. *"It is worrying that companies can control users' movements and know which web site you are going to everyday. I think it is all very clever how they go about it, however it is slightly frightening as it is like Big Brother looking down on you knowing everything that you do. But I suppose that is the way the world is going now like with these WAP phones"(male32).*

15. *"Well the dangers are internet fraud. People using other people's credit cards. Share dealing scams, could order and pay for something from a bogus company or a foreign company where legislation is different. Could possibly download something that could be illegal in this country"(male 31).*

16. *"I guess companies do use the web for market research purposes although I don't see anything sinister in this. I have no fears about the methods used to collect feedback/market research data from my own activities while on the net. I can see how certain groups might feel threatened but for myself I don't mind companies seeking out what interests I might have as their motives are unlikely to extend beyond commercial criteria. Sometimes to fill in some details you can get a better deal or a special offer. And if they ask to provide details that are too private you can always refuse, especially if nothing appealing is on offer. I am equally relaxed for junk mail. Providing I have time I usually read what comes through my letter box and 99% of that ends up in the bin. I can also see potential benefits for myself. Occasionally an interesting offer arrives"* (male, 26)

17. *"I may be a bit unusual but I have absolutely no concerns about information collection, nor about the tracking of purchases i.e. profiling. In fact I actually think it can be very useful - allowing companies to accurately target me in areas which I am genuinely interested in. It is only when this targeting is done poorly that I get a little frustrated as it manifests itself in junk mail, for example."(female 45)*

18. *" I'm happy for people to collect this information providing it is with consent and that the user can veto its use. I believe that marketing information collected in an open and transparent manner can be of use to the consumer, it does after all keep us abreast of new developments, products and news which might otherwise fail to come to our attention. Where an individual web site requests personal information they should allow you full access to their site even if you refuse. When offering information you should be allowed to refuse any questions which you may consider private or confidential and it should be made very clear to what purpose the information is to be used. Where the information is to be used for marketing and promotional work or passed to a third party authorization should be sought in a clear and direct manner. Collecting information about consumers interests by tracking their use of the Internet and monitoring the sites visited is an activity about which I would be very concerned. I believe that used indiscriminately it would infringe our basic right to privacy "(male 32)*

Positive attitudes toward information collection were related to an appreciation of the commercial benefits that could be obtained from consumer profiling. In these descriptions, participants did not report concerns over vulnerability and appeared to feel able to control exchanges with companies. However, overall, participants emphasised the importance of acting as informed parties in the exchange of information with companies and having some control over the collection of information (i.e. being able to access web sites without having to disclose information considered private) and over the use of the information disclosed (example 18, Table 4).

4) CONTROL AS A CONDITION FOR DISCLOSURE

The categories **"need for control"**, **"consumer reactions"**, **"value of time"** and **"trust versus control"** describe the dimensions of the phenomenon identified with the core category "CONTROL AS A CONDITION FOR DISCLOSURE". The perceived importance of control is suggested by the descriptions included in **"consumer reactions"** and **"value of time"** which indicate that consumers boycott attempts to collect information that conflict with their own aims for using the Internet (example 19, Table 5). Rejecting the collection of information when it is considered unnecessary or time consuming, participants display an active attitude in demanding autonomy and avoiding external control (example 20 Table 5). Consumers' reactions, which were associated with the awareness of

information collection for marketing purposes, included the explicit definitions

of conditions for disclosure such as the worthiness of the cause and/or the nature

of the rewards on offer (examples 21 and 22, Table 5). This indicates conceptual

relationships between the need for control-autonomy and the core category

"COMMODIFICATION OF INFORMATION". Further, incidents included in

the "**need for control**" category show that consumers react to the risk associated

with the disclosure of private information by demanding control over the

exchange of information and by conditioning disclosure to guarantees of control

(examples 23; 24; 25, Table 5).

Table 5. Control as a Condition for Disclosure

19. "when you have to 'register' to access some web sites. This actually makes me angry, I can see no reason why some sites demand to know your personal details when it is not really necessary. I sometimes will try an alternative web site rather than register, or will make up false details!"(female 38)

20. "There are other websites where you can accumulate points, and thus earn money by logging on to them (I am not quite sure how many points you actually need to earn say, £5.00, but it will probably be quite high). I have not tried this way of trying to save because it entails registering my e mail details, which is far too time-consuming. Although I will admit to entering the Virgin Wines "competition". I am also wary of replying to these "adverts" because I am sure that they are probably passing my name to other companies" (female 43)

21. "I think the only situation in which I would be willing to give personal information would be for a worthy research cause - such as medical research, where the company involved was either a charity with an impeccable reputation, and reassurances that the information would not be sold for profit or given to a third undisclosed party. In this case, I would probably be prepared to provide the information without any financial gain"(male 29).

22. "I would agree to disclose personal information under the condition that it would not be passed on to a third party. I would be encouraged to give personal information if it meant some reward for me e.g. membership of a loyalty scheme, discount etc. " (female 38).

23. "You, the user, should be aware of who has access to your information & why they are able to access - or perhaps give permissions on certain bits of information. I would like to have control over any issues relating to my finances (income, bank, mortgage etc.) I would like to have the power of absolute veto over these issues. I would also like to be able to control anything relating to health" (female 28).

24. "It is very important to remain in control of the personal information that is given as if it gets into the 'wrong' hands it could be used against one" (male 31).

25. "I think that with personal information you have to be compassionate and in this sense privacy is required. I would like full control knowing that if I passed on private information then it would not be disclosed to another party, for instance databases that sell information on to companies such as telesales."(male 28).

26. "I think that I could only trust a third party if I knew who they were being paid/funded by. The third party would obviously NOT be financed by private companies and would instead be government funded - a sort of 'watchdog'. " (female 29).

27. "The agency would charge the companies seeking the information. The consumer would be paid a small fee for information that they choose to disclose & would be paid each time the information is given to somebody new. The agency would obviously charge much more to the information seekers then the small fee they would pay to the consumers (The small fee is effectively a good-will gratuity, sweeter or whatever). This would enable them to invest in effective security. The agency would be accountable to the consumer. Consumers get to know what is happening with their info & gain some degree of control"(female 47).

The request for control varied from the freedom to choose whether or not to disclose private information to the demand for total control over the use of the information, aimed at personal protection against the perceived high risk (link with "COMMODIFICATION OF INFORMATION" and "INTERNET AS ABSTRACT SYSTEM"). Incidents that described a third party involved in the exchange of information with companies further illustrate the role of control in conditions of risk and untrustworthiness. The third party was described either as a trusted governmental body with the responsibility to protect users' interests and privacy (example 26, Table 5) or as a company that would regulate the exchange (charging the companies and paying the users) and guarantee control and security (example 27, Table 5). Control over the use of the information disclosed appeared to substitute for trust. Indeed when the third party was not described as a trusted governmental body, consumers emphasised the need for increased control over the use of disclosed information.

4.3.7 Selective Coding

Selective coding is the process of integrating and refining categories with the aim of developing a theory that accounts for the data collected. To this purpose, the first step in integration is deciding a central category that represents the main theme of the research and that links the other categories together to form an

explanatory whole (Strauss and Corbin, 1998). The central category was phrased as following: *"new consumer awareness: the limits of trust and the need for control"*.

Interviewees, who were all regular users, were aware of the use of the Internet to collect and extract users' data. The awareness of information collection varied among participants from a general sense of "being watched" to a more detailed knowledge of the type of technologies adopted and the related risks for privacy invasion. Overall, participants who were aware of being targets of activities for consumer profiling were also conscious that personal information might have a market value. This phenomenon, which in the analysis is indicated with the core category "COMMODIFICATION OF INFORMATION", is linked with pragmatic responses on the part of consumers who claim for more control over the exchange of information. Following from the awareness that companies are making a profit by using consumer information and that personal data have became, as a commodity, an object of exchange between companies, consumers tend to react by asking for rewards against disclosure and by adopting avoidance strategies when the request for information is not accompanied by an appropriate reward.

Consumers' reactions to information collection showed an active attitude in demanding control both as protection against risks and as the right of ownership over personal information. Indeed the concept of need for control that is described in the category "CONTROL AS A CONDITION FOR DISCLOSURE", can be refined with reference to two distinct issues. On one

100

side the demand for control is explicitly aimed at protection against vulnerability, is related to control over the information disclosed and is then mentioned as a condition for disclosure. On the other side, the need for control may indicate a change in consumers' attitudes towards their relationships with companies. Being aware of the value of personal information, consumers claim the right to control the negotiation of information, by evaluating costs and rewards. In this sense control is not only an attempt to reduce vulnerability but represents the expression of a new pragmatism, which moves from the lack of trust in e-commerce relationships to the awareness that personal information has a value.

As mentioned above, the awareness that data can be extracted was associated with the perception of environmental risks. The core category "INTERNET AS ABSTRACT SYSTEM" indicates that participants perceived the Internet as a complex and abstract environment strongly characterized by risk. The Internet is seen as providing the technological substratum for fraudulent or commercial activities, which take advantage of the opportunity to access and share data. Lack of security and overall mistrust in the Internet are responsible for the diffusion of privacy concerns, whose variability, as shown in the main category "ATTITUDES TOWARD PRIVACY", is explained in terms of perceived risk and control beliefs. Overall, interviewees reported privacy concerns for information that can be extracted or passed to third parties exposing them to uncontrollable risks. The highest acceptance of information collection was shown by participants who didn't feel at personal risk, who felt able to

manage the exchange with companies and to obtain benefits regardless of whether the Internet was perceived as an insecure environment.

Interviewees who, being willing to disclose in return for financial rewards, specified that they would not trade sensitive information provide an example of exercise of control in exchanges with companies. The trading of information, reinforcing the perception of information as a commodity, may increase the feeling that personal data would then be passed or sold to third parties. In this respect, interviewees were willing to give away some degree of privacy against rewards only for those data whose loss of control was not considered to be particularly risky. Therefore, in eliciting disclosure rewards do not seem to substitute for trust in the recipient. On the contrary, by nourishing the perception of possible risks related to the trade of personal information, the offer of rewards may reduce the probability of disclosure based on trust and leads to a kind of exchange which requires protection against potential vulnerability.

The diffused lack of trust in e-commerce exchanges was revealed by the tendency to avoid the disclosure of information considered risky. Some interviewees reported unwillingness to disclose sensitive information in any kind of exchange over the Internet. Some said that they would limit disclosure of personal information to non-profit research institutions and others specified the need for a face-to-face meeting for exchanging information whose disclosure was perceived as too risky over the Internet. However, when it was perceived to be a benefit, participants reported greater willingness to disclose information to companies that were well known (and/or well established off line) and with

whom they had already established a relationship. Even so, even under these circumstances, guarantees of control over the use of the information were perceived as an important incentive if not a necessary condition.

4.3.8 Discussion

The output from the above grounded theory analysis was discussed with participants in follow up interviews to reach a joint interpretation and then integrated with additional literature (see Strauss and Corbin, 1988). The emerging theme is that of a diffused lack of trust in e-commerce exchanges leading to a pragmatic evaluation of costs and rewards associated with disclosure. In addition to that psychological orientation to scepticism, signalled by Giddens (1991) as being a consequence of the perception of increased risks, this study underlines the emergence of active and critical reactions on the part of consumers. An important effect of the awareness of the commercial uses of personal information is the perception of information as a commodity. As indicated by Slater (2000), in the "new economy" immaterial commodities have become more socio-economically central. In the era of information technology, there is a market for information that extends beyond the supply of information to consumers. Organizations need consumer information and create in this way a market for information whose providers must be the consumers themselves.

In e-commerce exchanges, consumers do not disclose in order to establish intimacy as in interpersonal relationships. Benefits associated with disclosure

are pragmatically evaluated in terms of the potential for increased information, financial rewards and improved services (Goodwin 1991; Milne and Gordon, 1993; Sheehan and Hoy, 2000). Interviewees reported willingness to disclose when the perceived benefits could justify costs such as time consumption and risks of vulnerability. However, besides this "social exchange" model of self-disclosure (see Thibaut and Kelley 1959; Altman and Taylor, 1973) these results reveal the emergence of further implications for the nature of the relationships between consumers and companies. It appears that if on one hand disclosure can be elicited by financial rewards on the other the trade of information reinforces the perception of risk, stimulating a need for protection that may imply lack of trust and be incompatible with the development of trust.

Moreover, participants claimed the need to exercise control over the ownership of personal data in order to avoid unwanted privacy intrusions but also with the aim of safeguarding their interests and acting as informed partners in commercial exchanges where their own information is traded as a commodity. In line with the definitions of privacy presented in the literature, the need for control over information corresponds both to the need to avoid the others' control and to the need to exercise control over the environment (e.g. Altman, 1975; Kelvin, 1977). Indeed, personal beliefs of being in control in the exchange of information with companies were associated with higher acceptance of information collection for consumer profiling. As indicated by our interviewees, the ability to exercise control over personal information, corresponding to a situation of non-vulnerability, would make trust less important. Although

previous research postulated that by providing control over information companies can build trust relationships with consumers (e.g. Culnan and Armstrong 1999; Milne 2000), these findings suggest that it would be misleading to argue for a straightforward link between the offer of control and the development of trust relationships. Rather, by providing control to consumers it is possible to address perceived risks and stimulate an exchange of information that will not necessarily lead to a relationship based on trust. The active demand for control indicates that e-consumers may attempt to avoid the external control that organizations exercise, according to Knights *et al.* (2001), through institutional trust.

Further evidence of an emerging pragmatism among consumers can be found in the accounts that participants gave about the role of reputation. Previous research indicates that in contexts characterized by uncertainty and risk, reputation is becoming increasingly important (Lunt, 1999b). The willingness to engage in electronic transactions seems to be largely dependent on the brand image of the organization (*cf.* Lunt, 1999b; Knights, 2001). Likewise, interviewees revealed higher willingness to disclose not only to companies with whom individuals have an established relationship but also to companies that are well known and consequently have an image to maintain. Reputation was considered as a factor that leads companies to act more responsibly primarily with the intention of avoiding unfavourable publicity (see example 1, Table 2). Participants appeared to be disenchanted about the actual aims of commercial organizations and looked at reputation as a deterrent for

misuse of personal data and therefore as an assurance against risks rather than a clear sign of trustworthiness.

However, reputation, like control over information, reduces the perception of risk that could inhibit self-disclosure. Both contribute to make the output of the exchange more predictable. Predictability, in the conceptualisation proposed by Rempel, Holmes and Zanna (1985), together with dependability and faith, is one of the main components of trust. Rempel *et al.* (*ibid.*) indicate that in the early stages of a relationship predictability is the dominant component, later dependability, and then faith, become the dominant features of trust in mature relationships. The active demand for control on the part of consumers is a sign of a pragmatic approach that could limit the degree of trust achievable in e-commerce relationships. Awareness of risks may lead consumers to prefer relationships that, together with benefits, provide them with control and that are predictable, while avoiding being subjected to the external control of paternalistic and institutional trust relationships.

In conclusion, this study attempted to clarify the relation between perceived control and trust in the negotiation of privacy in e-commerce exchanges. The present results indicate that the awareness of the market value of information and the perception of increased risk motivate a need for emancipation from external power, which is expressed through the emerging demand for active control over the disclosure or use of information. This may be a symptom of the changing nature of the relationships with companies. More specifically, the demand for active control indicates the need for instruments that

can allow consumers to take informed decisions in exchanges with companies and trade appropriate benefits. It can be argued that by providing this kind of control firms can still aim at establishing successful relationships with consumers, although more based on cooperation and less on trust.

4.4 Summary of Chapter 4

Previous e-commerce research indicates that awareness of environmental risks, such as the lack of Internet security, affects the overall perception of the medium and has negative influences on consumers' willingness to become involved in e-commerce exchanges. Sociological literature describes our society as a 'risk society' to emphasise that modern scientific knowledge has introduced new sources of risk and uncertainty. New sources of risk are manufactured by scientific and technological development. Thus, they are non predictable and difficult to control since there are no historical parameters against which to judge them. Further, it is suggested that the diffusion of information across space and time makes people aware of global issues such as those concerned with the risks introduced by technology. This global risk awareness affects individuals' choices in their local life. Risk awareness leads individuals to become sceptical towards science, technology and organisations, which expose them to risks (Giddens, 1990).

The study presented in this chapter suggests that awareness of risks is related to a sceptical attitude toward firms that operate on-line to collect

consumers' data and demonstrates an emerging pragmatism among consumers who are aware that personal information has a value. Further, the present results indicate that consumers' need for control may derive from the need to be actively involved in exchanges with companies and to negotiate appropriate benefits. Indeed, personal beliefs of being in control over the outcomes of exchanges with companies (e.g. being able to manage the exchange efficiently in order to obtain benefits in return of disclosure, while avoiding unwanted privacy intrusions) appear to be associated with lower privacy concerns and higher acceptance of information collection. Further, results suggest that awareness of information collection is related to consumers' value of companies' reputation as a guarantee against risk rather than as a clear sign of trustworthiness. Consumers appear to prefer exchanges that are predictable and that might allow them to avoid asymmetric power relationships based on trust.

From these results a number of possible research questions emerge. First, it emerges the need to investigate the relation between awareness of risks, perceived trust and disclosure. Thus, in the next chapter, a study that tests experimentally the effect of awareness of risk on perceived trust and willingness to disclose is presented. Second, results indicate individual differences in self-disclosure behaviours and privacy concerns that might be associated with different self-perceptions of ability in the management of exchanges with companies. This result is interpreted adopting the theoretical perspective of Social Cognitive Theory (Bandura, 1986), according to which self-reflective processes have a fundamental impact on the regulation of behaviour. Bandura

(1986) posits that self-efficacy, that is, the belief in one's capabilities to organise and execute the sources of actions required to manage prospective situations, predicts the extent to which people engage in goal oriented behaviours or withdrawn in the attempt to avoid negative outcomes. On the basis of the literature that conceptualised self-disclosure as a goal oriented behaviour in dialectic relation with the need for privacy (see Chapter 2), this thesis postulates that self-efficacy beliefs may play a role in the explanation of self-disclosure behaviours. Thus, the Social Cognitive Theory and the self-efficacy construct are discussed and the hypothesis of the impact of perceived control over interpersonal exchanges as a factor for the explanation of privacy concerns and self-disclosure is developed and tested.

CHAPTER 5

The mediating role of risk awareness. Relationships between reputation, trust, rewards and willingness to disclose

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5_____

5.1 Introduction

Results from study 1.4 indicate that awareness of information collection over the Internet is related to privacy concerns and is also associated with pragmatic reactions oriented to evaluating the costs and rewards of exchange. Results also suggest that awareness of risks might decrease trust in companies that operate on-line to collect consumer information. Further, study 1.4 demonstrates that when there is awareness of risks the offer of financial rewards may be associated with privacy concerns and decrease of willingness to disclose sensitive information.

The study presented in this chapter extends the findings of study 1.4 by examining the relationships between awareness of environmental risks, perceived trust in the company collecting information, financial reward and willingness to disclose. The existing relations between these variables are examined with an experiment conducted over the Web (N= 80). The willingness to disclose variable is assessed with reference to a number of items representing information of different perceived sensitivity. According to previous literature (e.g. Jourard, 1971), willingness to disclose varies as a function of the perceived sensitivity of the topic, which in turn is highly influenced by contextual factors such as the reason for the disclosure and the recipient. Thus, in order to make possible the measurement of the willingness to disclose variable in the experimental condition, prior to the experiment another study (N= 84) was conducted to assess questions' sensitivity under similar conditions. Sensitivity

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

ratings were used to construct a willingness to disclose questionnaire with questions of different levels of data sensitivity to be used in the experiment.

5.2   Background

From the social exchange perspective disclosure results from a balancing test between costs and rewards, where costs are dependent on the perceived trustworthiness of the recipient and the risk associated with the topic to be disclosed (Altman and Taylor; 1973; 1975). In accordance with this conceptualisation of self-disclosure, study 1.4 indicated that in an e-commerce context people evaluate the trustworthiness of the potential recipient. Consumers reported themselves more willing to disclose information to companies with which they have already established a relationship or with companies that have a good reputation. This finding is in line with previous research suggesting that in contexts characterized by uncertainty and risk reputation is becoming increasingly important. Authors have contended that the willingness to engage in electronic transactions is largely dependent on the brand image of the organization (*cf* Lunt, 1999; Knights, 2001). Marketing literature clarifies the role of reputation in e-commerce. Specifically, it is argued that in conditions of uncertainty or lack of previous experience perceived trustworthiness derives from the company reputation (Einwiller and Will, 2001; Doney and Cannon, 1997; Jarvenpaa and Tractinsky, 1999). A first aim of the experiment presented in this chapter is to test whether consumers are more willing to disclose to a

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

well-reputed company and whether reputation affects perceived trustworthiness.

Furthermore, results from study 1.4 suggested that awareness of environmental risks might affect consumers' attitudes toward companies that operate over the Internet, decreasing trust and willingness to disclose. Moreover, study 1.4 showed that consumers who are aware of information collection over the Internet and that show a pragmatic attitude toward the exchange of personal information consider reputation as possible insurance against risks rather than as a clear sign of trustworthiness. A second aim of the experiment is to verify if awareness of environmental risks reduces the perceived trustworthiness of well-reputed companies and whether this has an impact on willingness to disclose. Specifically, it is hypothesized that awareness of environmental risks mediates the relationship between reputation and willingness to disclose.

Study 1.4 also provided support for the argument that the trade of private information might be associated with feelings of mistrust and privacy concerns (see Goodwin 1991; Hagel and Reyport, 1997; Hinde, 1999). Specifically, results from study 1.4 indicate that when consumers are aware of risks then the offer of financial rewards raises their concern about personal information being traded as a commodity and passed to third parties. As a consequence, consumers report that they prefer to avoid the trade of highly sensitive information. A third aim of the experiment is to investigate if the awareness of risks decreases willingness to disclose against financial rewards when the information to be disclosed is considered highly sensitive. In other words, it is hypothesized that awareness of environmental risks moderates the relationship between reward

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

and willingness to disclose for highly sensitive topics.

Further, it was hypothesized that willingness to disclose would decrease as the sensitivity of the information required increases and that the reputation of the recipient would increasingly affect willingness to disclose as the perceived risk of the topic to be disclosed increases.

In order to test the last three hypotheses a measure of the sensitivity of different information was required. A study (N= 84) was conducted to design a questionnaire with questions of different levels of sensitivity. Background, method and results of the questionnaire development study are reported in the next section.

5.3   Study 1.5. The development of a questionnaire measuring willingness to disclose

5.3.1 Background

Experiments on consumers' willingness to disclose personal information via computer adopt experimenter-defined classification of sensitive versus non-sensitive information. According to Moon (2000), sensitive information is intimate information concerning feelings such as "I feel ashamed of". Moon (2000) contends that this kind of information is the most difficult to collect because consumers perceive it as high-risk information.

However, both commonsense and empirical research suggest that it is

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

often factual information, such as health or financial data, that interests companies and that is difficult to obtain (Phelps, Nowak and Ferrel; 2000). Certain information that might be easily disclosed in the context of an interpersonal relationship can be high-risk disclosure in commercial exchanges. For instance, the risk associated with the disclosure of health records might be higher if the recipient is an insurance company than a close friend. Since the earlier studies on self-disclosure by Jourard the perceived risk of disclosing certain topics has been shown to vary according to the recipient (1964; 1971). In Jourard's questionnaires subjects rated the perceived intimacy of items such as "Who are the people with whom you have been sexually intimate. What were the circumstances of your relationship with each?"; "What are the unhappiest moments in your life; why? "; "What are your personal goals for the next 10 years or so?". Items were then divided according to low, medium and high intimacy and used in other studies where, for each item, subjects rated breadth of past disclosure or willingness to disclose with different recipients, such as partners, friends or family members. In this way it was possible to obtain measures of individual disclosure with respect to the information and the recipient. The same method was adopted for this questionnaire development study. A questionnaire was developed with items measured according to the perceived sensitivity (in terms of perceived risk associated with the disclosure of the topic) when the recipient is a company.

5.3.2 Method and results

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

Nine practitioners from market research companies based in London (three practitioners were employees at MORI, four at Research International, two at NOP) were interviewed to identify topics that, based on their professional experience, ranged from "difficult" to "easy" to collect. Practitioners were asked to mention three or four topics for each category, difficult, medium and easy to collect. They mentioned an average of ten topics each. Topics considered difficult to collect were more promptly recalled, they were especially concerned with finance, health related problems and sexual habits. Topics that were more often mentioned and that were congruent with the aim to obtain a balanced number of topics for a variety of domains were selected to devise a 26-item questionnaire. Items requested personal information on different topics such as personal tastes, financial matters, health, personal opinions, and personal relationships (see Table 1).

The 26-item questionnaire was administered to 84 participants in order to obtain a measure of sensitivity for each item. Participants were 43 males and 41 females, aged between 19 and 56 (mean age = 30.31; SD = 5.66). They were residents of a hall of residence for postgraduates and professionals (Goodenough College and Club, London). 62% were students and 38% professionals. Students were from a variety of disciplines, including four students of business administration, six students of political sciences, one student of biology, three students of medicine, one student of antropology, five students of history, five students of fine art and two of music. Professionals included five academics, three lawyers, two civil servants, two medical doctors, four business consultants,

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

one nurse and three musicians. 38 participants did not specify their academic or professional field. The study was advertised by means of posters in the hall of residence. The questionnaires were distributed in occasion of cultural gatherings organised in the college. Participants were paid £ 1.50 for taking part in the study. They were asked to rate the perceived sensitivity of each item if the questions were posed by a company for market research purposes. Responses were made on 5-point bipolar scale (1=low sensitivity, 5=high sensitivity).

Two cut points (2.71; 3.69) were computed on the ordinal distribution of the ratings to obtain three equal size groups representing low, medium, high sensitivity items, respectively. Means and standard deviations of the items grouped according to the three levels of perceived sensitivity are presented in Table 1. In order to assess the extent to which the participants' ratings might be a reliable measure of perceived sensitivity and apply to others' people perceptions of sensitivity for the same topics, reliability was not computed on the items but across the subjects. Reliability measured on the reversed matrix was high (Cronbach's alpha = .99), showing that participants' perceived sensitivity for each item was highly correlated.

Chapter 5

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Table 1. Questionnaire's items grouped according to low, medium, high intrusiveness ratings

LOW INTRUSIVENESS	MEDIUM INTRUSIVENESS	HIGH INTRUSIVENESS
What is your favourite shampoo (1.28; .63)*	Do you have a partner (2.71; 1.14)	Which contraceptive method do you prefer (3.76; 1.11)
What is your favourite food (1.21; .56)	How is your health in general (2.71; .98)	What is the worst health problem you have had (3.83; 1.09)
What do you drink when you are out with friends (1.80; 1.0)	Have you ever asked for an overdraft (3.28; 1.20)	Is there anybody in your family with alcohol problems (4.11; 1.09)
Who is your favourite actor/actress (1.26; .58)	Have you ever worried about AIDS (3.28; 1.12)	Have you ever taken drugs, and if so which (4.11; .91)
What bank do you use (2.11; 1.18)	Have you or anybody of your family ever asked for a state benefit (3.59; 1.16)	What is your income (4.00; .98)
What is your opinion about abortion (2.30; 1.15)	How many credit cards do you have and with what banks (3.28; 1.12)	Have you ever had an AIDS test (4.28; .91)
Do you smoke, if so how much and which brand (1.76; 1.00)	Have you ever had depression or anxiety problems (3.66; 1.09)	Have you ever been unfaithful to your partner (4.21; .83)
How much did you spend last time you went to a restaurant (2.21; 1.10)	Do you have an health insurance, if so, with which company (2.80; 1.16)	What characteristics of your parents do you dislike (3.73; 1.12)
	Do you support any political party, if so, which (2.80; 1.22)	Do you have savings, if so, what could you afford to buy (3.69; 1.17)

* Values in brackets are means and standard deviations, respectively.

5.3.3 Discussion

Items classified as low sensitive information were consumption habits and preferences such as "what is your favourite shampoo" and "what do you drink when you are out with friends". Within this group the item "what is your favourite food" received the lowest sensitivity ratings, whereas "what is your opinion about abortion" obtained higher ratings for sensitivity. Information concerning health ("how is health in general"), finance ("how many credit cards

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

do you have and with what banks") and personal relationships ("do you have a partner") was grouped as medium sensitive information. It appears that if the item requests personal information that can reveal financial or health related problems participants perceive it as more sensitive. For instance, in the medium sensitivity group the items "have you ever had depression or anxiety problems" and "have you or anybody of your family ever asked for a state benefit" received the highest ratings. The items that fall in the high sensitivity group are concerned with specific information about sexual habits, health problems and finance. "Have you ever been unfaithful to your partner" and "Have you ever had an AIDS test" received the highest ratings for sensitivity.

It should be noted that the items presented in this questionnaire might be perceived as more or less sensitive for different reasons such as because they are concerned with issues that are culturally associated with social disapproval, or, more generally, because they could be used against the interest of the discloser. Moreover, participants were asked to rate the perceived sensitivity of each item if the questions were asked by a company for general market research purposes. It is likely that the ratings would change with different kind of companies and if different reasons for the collection of information were provided. However, the evaluation of the potential variation in perceived sensitivity of the items under different circumstances goes beyond the aim of the present study.

The questionnaire obtained with this study was used in the experiment reported below for the test of the hypotheses concerned with the willingness to disclose information of different degree of perceived sensitivity.

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

5.4 Study 2.5 The mediating role of risk awareness. Relationships between trust, rewards and willingness to disclose over the Internet

5.4.1 Research Hypotheses

As described in the introductory section of this chapter, the impact of the independent variables reputation, reward, sensitivity of the topic and awareness of data mining on the dependent variable willingness to disclose personal information was investigated with an experiment conducted over the Web (N = 80). Reputation and reward were manipulated by means of vignettes.

The hypotheses were the following:

H.1. Willingness to disclose is higher with well-reputed companies

H.2. Well-reputed companies are perceived as more trustworthy

H.3. Awareness of environmental risks decreases the perceived trustworthiness of well-reputed companies and mediates the relationship between reputation and willingness to disclose.

H.4. Awareness of environmental risks moderates the relationship between rewards and willingness to disclose high sensitive information.

H.5. Willingness to disclose decreases as the data sensitivity of the topic to be disclosed increases.

H.6. The reputation of the recipient increasingly affects the willingness to disclose as the data sensitivity of the topic increases.

5.4.2 Research Design and Measures

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

Participants

Participants in this study were 36 men and 44 women. Age ranged between 21 and 54 (mean age = 31, 73; SD = 5.62). Eight women were housewives. Students were 21, of which 10 undergraduates and 11 postgraduates. 43 professionals were employed in different sectors such as advertising, banking, education, and fashion. 6 participants were self-employed and 2 unemployed. They were recruited through advertising notices posted to e-mail discussion lists. A draw of £100 was used as incentive. For each participant data were collected by means of three on-line questionnaires published on the web in three URL addresses linked to each other. There were four different versions of the first on-line questionnaire representing four experimental conditions. Participants were randomly addressed towards one of the experimental condition and then linked to the other two URLs. A number code was assigned to each participant to match the data collected from the three URL addresses.

Manipulations and Procedure

In the first on-line questionnaire the dependent variable willingness to disclose was tested in four experimental conditions "reputation vs. no reputation" and "reward vs. no reward".

Participants were randomly assigned to one of the four experimental conditions (four different URL). They were given a URL address and asked to submit the completed questionnaires. They were told they were being recruited to undertake two unrelated studies. They were instructed that the first study was

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

a pilot carried out on behalf of a company wishing to investigate consumers' willingness to disclose before conducting on-line market research. In order to control for biases due to different brand perceptions, it was said that, at this stage, the company preferred to remain anonymous. These instructions were matched with additional information constituting of the four vignettes of the experimental manipulation (reputation vs. no reputation and reward vs. no reward). Participants were then presented with one of the four vignettes.

Experimental manipulations were performed by means of vignettes describing a well-known company versus an unknown company as the recipient of disclosure and offering a £ 2 reward for each question to be answered vs. no reward. In the "reputation" condition the introduction to the first on-line questionnaire included the following description of the company: *"It is a very well known company. This company would like to collect some consumer information that could be useful to their corporate goals".* The "no reputation" condition was manipulated as such: *" It is a relatively unknown company. This company would like to collect some consumer information that could be useful to their corporate goals".*

The dependent variable willingness to disclose was measured by means of the 26-item questionnaire devised in Study 1 (see Table 1). Items were 26 questions, of which 8 rated Low, 9 rated Medium, and 9 rated High on data sensitivity. Responses were made on a 7-point scale ("I will provide a true and detailed answer" ; 7 = completely agree, 1 = completely disagree). A single index of total willingness to disclose was computed as the sum of the items. In

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

addition, averages were computed as indexes of willingness to disclose with respect to low, medium and high risk of the questions.

Once they had submitted the first questionnaire, participants were linked to a second URL. On this Web page participants were thanked for completing the first questionnaire and they were asked to answer a few questions concerning the first questionnaire in order to assess the perceived trustworthiness of the company: "The company that is interested in the information of the previous questionnaire seemed a trustworthy company", "I feel that this company could use the information disclosed against my own interests", and "I am sure that this company will use my personal information in a proper and correct way". Responses were made on a 7-point scale (1= Strongly Disagree, 7= Strongly Agree). An index of perceived trust in the recipient was computed as the sum of these items (Cronbach's alpha = .78).

After submitting the second questionnaire, participants were linked to a third Web page. Here they were thanked and told that the next questionnaire was unrelated to the previous one, concerning Internet usage across demographics and that it was conducted on behalf of a governmental body. In this questionnaire, classification data and filler items were used to provide a greater mix of content. Questions included 3 items measuring awareness of risks of on-line data extraction. Awareness was operationalised by means of questions assessing the knowledge of methods used for data mining: "What do you know about 'users tracking systems'?"; "What do you know about 'cookies'?"; "What do you know about on-line data mining devices?". Responses were made on a 9-

Chapter 5

The mediating role of risk awareness. Relationships between trust, reward and disclosure

point scale (1= never heard about, 9= perfect understanding). A single index of

awareness was computed as the sum of the items (Cronbach' alpha .81).

Analysis

2x2 ANOVA/ANCOVA were used with 'reputation' (reputation vs. no

reputation) and 'reward' (reward vs. no reward) as between subjects-factor on

'willingness to disclose' and 'perceived trustworthiness' as dependent variables,

and with 'awareness' as a covariate. For the test of H. 4 a 2x2x3 mixed factor

design was used with 'reputation' (reputation vs. no reputation) and 'reward'

(reward vs. no reward) as between subjects-factors and 'questions' sensitivity'

(low, medium and high sensitivity) as a three level within-subjects factor. The

between subjects-factors were the four conditions obtained by means of

vignettes.

5.4.3 Results

Means, standard deviations, and intercorrelations of the study variables are

presented in Table 2.

Table 2 *Descriptive Statistics and Intercorrelations of Study Variables*

Variable	M	SD	α	1	2	3	4	5	6
1. Total W-D	140.50	34.77	.96	_					
2. W-D for LIQ	6.27	1.79	.80	.85**	-				
3. W-D for MIQ	5.06	1.65	.89	.97**	.78**	-			
4. W-D for HIQ	4.97	1.70	.90	.96**	.76**	.89**	-		
5. Perceived Trust	10.85	3.38	.78	.40**	.27**	.43**	.38**	-	
6. Awareness	16.80	2.57	.81	-.37**	-.32**	-.34**	-.38**	-.33**	-

Note. N= 80. W-D=Willingness to Disclose; LIQ=Low Intrusive Questions; MIQ=Medium Intrusive Questions; HIQ=High Intrusive Questions. α = Cronbach' alpha; * $p < .05$ (2-tailed); ** $p < .01$ (2-tailed).

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

Hypothesis 1 predicted that participants' willingness to disclose would be higher when the company was described as well-reputed. A 2x2 Analysis of Variance (ANOVA) performed on the overall 'willingness to disclose' as a dependent variable and on 'reputation' and 'reward' as between-subjects factors indicated a significant main effect of reputation on willingness to disclose, $F (1, 76) = 5.951$, $p < .02$. The mean of 'willingness to disclose' in the 'reputation' condition was 149.67 (SD = 28.28) whereas the mean of 'willingness to disclose' in the 'no reputation' condition was 131.32 (SD = 38.43). Thus the first hypothesis was supported. The effect of reward and the interaction between reputation and reward were not significant (see Table 3 below).

Table 3

ANOVA On Willingness to Disclose by Reputation and Reward				
Source	d.f.	Mean Sq.	F – stat.	Prob.
Main Effects				
REPUTATION	1	6734.450	5.951	.017
REWARD	1	2289.850	2.023	.159
Interaction Reputation x Reward	1	510.050	.451	.504
Explained	3	3178.100	2.808	.045
Residual	76	1131.680		
Adjusted R Squared	6.4%			

Hypothesis 2 predicted that the company described as well-known would be perceived as more trustworthy than the company described as relatively unknown. The 2x2 Analysis of Variance (ANOVA) on 'perceived

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

trustworthiness' as a dependent variable and on 'reputation' and 'reward' as between-subjects factors revealed a highly significant main effect of reputation on perceived trust F (1,76) = 15.401 p < .001, thus, the hypothesis was supported. The mean of 'perceived trustworthiness' in the 'reputation' condition was 12.20 (SD = 3.37) whereas that in the 'no reputation' condition was 9.50 (SD = 2.84). Furthermore results indicated a marginally significant main effect of reward on perceived trust F (1,76) = 2.794; p = .099. The mean of 'perceived trustworthiness' in the 'reward' condition was 11.42 (SD = 3.20) whereas in the 'no reward' condition the mean of 'perceived trustworthiness' was 10.27 (SD = 3.50).

Table 4

ANOVA
On Perceived Trustworthiness by Reputation and Reward

Source	d.f.	Mean Sq.	F – stat.	Prob.
Main Effects				
REPUTATION	1	145.800	15.401	.000
REWARD	1	26.450	2.794	.099
Interaction Reputation x Reward	1	14.450	1.526	.220
Explained	3	62.233	2.808	.045
Residual	76	9.467		
Adjusted R Squared	17.5%			

Hypothesis 3 postulated a mediating effect of awareness of environmental risks on the relationship between reputation and willingness to disclose. Mediation

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

Analysis was performed following Baron and Kenny's (1986) procedure. First, the relationship between the mediator, 'awareness of risks', and the dependent, 'willingness to disclose', was computed. Results showed a significant correlation between 'awareness' and 'willingness to disclose', $r = -.373$, p <.001. Second, a significant relationship was found between perceived 'trustworthiness' and 'awareness', $r = -329$, p <.001. Then, it was found that when 'awareness' is entered as a covariate in the ANOVA (see Tab. 5) there is a significant relationship between 'awareness' and 'willingness to disclose', F (1, 75) = 7.789, p < .005 and the relationship between 'reputation' and 'willingness to disclose' is less significant, F (1, 75) = 3.638, p = .060 (compared to F (1, 76) = 5.951, $p < .02$). Thus, the hypothesis of the mediator effect of awareness on the relationship between reputation and willingness to disclose was supported.

The inspection of the adjusted means with the observed means of the four experimental conditions indicated that controlling for 'awareness' decreased the perceived trustworthiness in the 'reputation-reward' condition (observed mean = 13.200 versus adjusted mean = 12.803), decreased the difference in 'perceived trustworthiness' between 'reputation' and 'no reputation' conditions (observed means 12.200 and 9.500 v. adjusted means 12.025 and 9.675, respectively) and levelled the difference between 'no reputation-reward' and 'no reputation-no reward' conditions (observed means 9.650 and 9.350 v. adjusted means 9.636 and 9.662, respectively). Indeed, before awareness was entered as a covariate perceived trustworthiness was higher when in the reputation condition was offered a reward (see observed means Fig. 2). The result of the linear contrast

comparing the two reputation conditions was $F(1, 76) = 4.225$ $p < .05$. The plots of the observed and adjusted means across the four experimental conditions are presented in Figure 2.
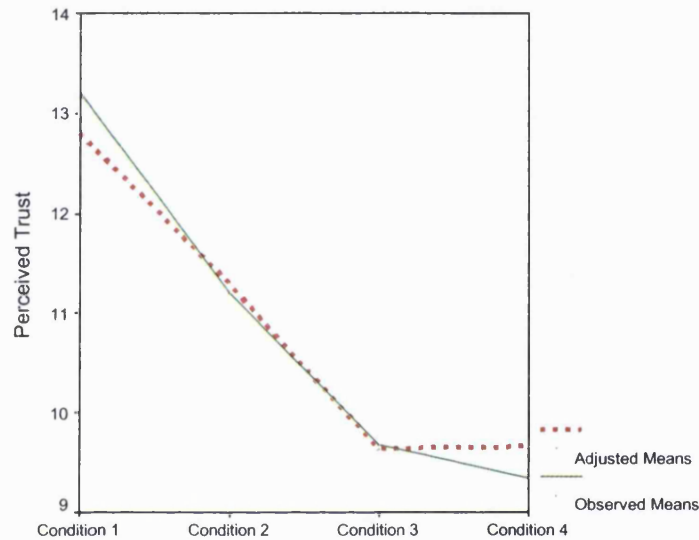
Fig. 1. Observed versus adjusted means of perceived trust across the four experimental conditions (condition 1 = Reputation and Reward; condition 2 = Reputation and No Reward; condition 3 = No Reputation and Reward; condition 4 = No Reputation and No Reward) after data mining awareness is entered as a covariate.

Table 5

ANCOVA
Willingness to Disclose by Reputation and Reward

Source	d.f.	Mean Sq.	F – stat.	Prob.
Main Effects				
REPUTATION	1	3779.135	3.638	.060
REWARD	1	418.682	.403	.527
Interaction				
REPUTATION x REWARD	1	291.241	.280	.598
Covariates				
AWARENESS	1	8091.484	7.789	.007
Explained	4	4406.446	4.242	.007
Residual	75	1038.883		
Adjusted R Squared	14.1%			

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

Hypothesis 4 predicted that awareness of environmental risks moderates the relationship between rewards and willingness to disclose high sensitive information. However, the 2x2x3 Mixed Factor Multivariate Analysis of Variance (MANOVA) on 'willingness to disclose' with respect to 'reputation' and 'reward' as between-subjects factors, and on the three levels (Low, Medium and High) of the within-subjects factor 'data sensitivity' showed a non significant interaction between 'reward' and 'data sensitivity' both before and after 'awareness' was entered as a covariate. Thus, the hypothesis was not supported. Further, using Wilk's criterion, the analysis revealed a significant effect of level of 'data sensitivity' on 'willingness to disclose', Wilk's Lambda = .399, $p < .001$, as well as significant interaction of 'reputation' with 'data sensitivity', Wilk's Lambda = .869, $p < .01$, therefore H.5 and H.6 were supported. The willingness to disclose decreased as the data sensitivity of the topic increased and the importance of reputation on willingness to disclose was dependent on the sensitivity of the data.

Moreover, the analysis indicated significant linear, $F(1,76) = 100.526$, $p < .001$, and quadratic, $p < .001$, trends for levels of 'data sensitivity' and significant linear, $F(1,76) = 9.777$, $p < .005$, and quadratic, $p < .05$, trends for levels of 'sensitivity' X 'reputation interaction'. Fig. 3 shows the linear and quadratic trends of the distribution. These results indicated that willingness to disclose decreased when the data sensitivity of the questions passed from 'low' to 'medium and high', and this decrease was higher in the 'no reputation' condition. To examine the changes in 'willingness to disclose' in the

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

'reputation' and 'no reputation' conditions across levels of 'data sensitivity', an interaction trend was computed. 'Willingness to disclose for medium and high sensitivity' (combined) was compared with 'willingness to disclose for low sensitivity'. Results confirm that there is a significant 'reputation' interaction effect, $F(1,76) = 11.484$, $p < .005$.
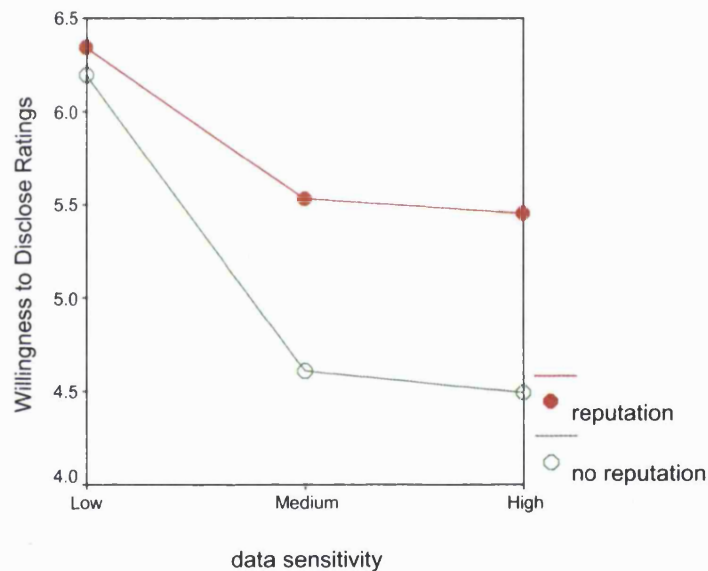
Figure 2. Mean Willingness to Disclose over Low, Medium, and High Sensitivity of the questions as a function of Reputation and No Reputation Conditions.

5.4.4 Discussion

The present results confirm that in an e-commerce context well-reputed companies are perceived as more trustworthy. Moreover, they show that the perceived trustworthiness of the company affects willingness to disclose and that

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

this effect increases with higher levels of data sensitivity. Willingness to disclose decreased with the increase of data sensitivity (from low to medium), and this decrease was higher when consumers were exposed to a company that was not perceived as trustworthy. Likewise for self-disclosure in interpersonal relationships, in e-commerce contexts the perceived risk sensitivity of personal information and the trustworthiness of the recipient are major factors in decision-making on self-disclosure.

Furthermore, the awareness of environmental risks associated with data mining activities affects the willingness to disclose despite the recipient's reputation. Results show that awareness of risks mediates the relationship between reputation and willingness to disclose by affecting the perceived trustworthiness of well-reputed companies. Mediation analysis, following Baron and Kenny's (1986) procedure, demonstrates that awareness of risks decreases the perceived trustworthiness of well-reputed companies and, thus, affects the relation between reputation and willingness to disclose.

In addition, the observation of the distribution of the data provide an indication that environmental risk awareness might interact with the offer of financial rewards, leading to a decrease in trust in the recipient. The perception of trust in the recipient appeared to decrease when a reward was offered in conditions of awareness of environmental risks. In contrast, before controlling for awareness of data mining the perception of trustworthiness seemed to be higher when a reward was offered. Results from study 1.4 suggest that awareness of the methods used to extract personal data might lead consumers to

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

perceive the offer of rewards as an indication that the information might be subsequently traded. Awareness of risks of data abstraction might then negatively affect the perception of trustworthiness of companies offering rewards. The relation between environmental risk awareness, financial benefits and perceived trust might also affect the willingness to disclose. Indeed, after awareness was entered in the analysis the distribution of willingness to disclose followed a very similar pattern to that of perceived trust. In other words, when controlling for awareness of data mining, both willingness to disclose and perceived trust decrease in the "reputation and reward" condition while it is levelled the previous difference between "no reputation and reward" and "no reputation and no reward" conditions. Before controlling for awareness of data mining both willingness to disclose and perceived trust were higher when a reward was offered. However, the inferences above were not supported by statistical evidence. Before awareness was entered in the analysis, data only indicated a marginally significant relationship between reward and perceived trust and no significant relationship between reward and willingness to disclose was found. Therefore, results do not support the hypothesis that the offer of a reward has a positive effect on the perceived trustworthiness of the company and that when there is awareness of data mining activities companies offering rewards are perceived as less trustworthy. Furthermore caution is needed in interpreting these results. It is difficult to predict the boundary level that is needed to obtain an incentive effect. A greater incentive might have had a significant effect on willingness to disclose, especially with low sensitivity

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

questions.

In conclusion, the present study indicates that consumers who are aware of data mining activities are less willing to disclose personal information even if the company is well-reputed. Awareness of risks mediates the effect of reputation on willingness to disclose by reducing the effect of reputation on perceived trust. Data mining awareness might also be associated with the perceived trustworthiness of companies offering rewards and this might potentially reduce consumers' willingness to disclose personal information to these companies.

5.5 Summary of Chapter 5

The academic literature on e-commerce and marketing has underlined the role of the reputation. In contexts characterized by uncertainty and risk, such us the Internet, consumers appear to value a company's reputation as an indication of trustworthiness. Extending on this literature, the results from study 1.4 indicated an emerging scepticism among those consumers who are aware of information collection over the Internet. These findings suggested that risk awareness might play a role in the perception of trustworthiness of well-reputed companies and, as a consequence, on the willingness to disclose personal information. Study 1.4 also showed that the offer of financial rewards might increase the perception of risk by activating the awareness that personal data can be exchanged as a commodity and possibly passed to third parties. Awareness of risks appeared to

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

moderate the potential incentive effect of financial rewards when the information to be traded is highly sensitive. Study 2.5 reported in this chapter aimed to test experimentally these findings from Study 1.4.

In addition, Study 2.5 aimed to test whether two well-established findings on self-disclosure in interpersonal relationships also apply in an e-commerce context. As discussed in the previous chapters, research has shown that people avoid self-disclosure when the information to be disclosed can increase their vulnerability to others and that as the sensitivity of the information increases the trustworthiness of the recipient has a major impact on the balancing test between costs and rewards associated with self-disclosure. Study 2.5 tested experimentally these two findings. In order to account for the perceived sensitivity of data that might be collected in a commercial context a questionnaire was developed to measure the perceived sensitivity of a number of items. The questionnaire obtained with Study 1.5 was adopted in Study 2.5.

The results reported in this chapter confirm that in an e-commerce context willingness to disclose decreases as the sensitivity of the information increases and that the impact of the recipient's trustworthiness on willingness to disclose is stronger with high sensitive questions. Furthermore, Study 2.5 showed the impact of awareness of risks on willingness to disclose and on the perception of trustworthiness of the recipient. The reputation of the company had a positive influence on willingness to disclose. Further, results indicated that well-reputed companies were perceived as more trustworthy. However, awareness of environmental risks mediated the effect of reputation on willingness to disclose

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

by decreasing the perception of trustworthiness of well-reputed companies. In addition, the distribution of the data gave an indication that awareness of risks might decrease the perception of trustworthiness of well-reputed companies that offer financial rewards against disclosure.

Awareness of environmental risks emerges as an important factor for the explanation of consumers' willingness to disclose in e-commerce. When adopting the theoretical perspective that describes self-disclosure as the result of a balancing test between costs of vulnerability and possible benefits (e.g. Altman and Taylor, 1973), environmental risks seem to affect the perception of costs and benefits within a relational context. Risk perception of broader context has a negative effect on the perceived trustworthiness of well-reputed companies and might also negatively affect the perception of trustworthiness of companies offering rewards against disclosure.

Environmental risks can then be conceptualised as an additional significant cost that increases the perception of individual vulnerability associated with the disclosure of personal information. Environmental risks appear to restructure the nature of the relation between consumers and companies that operate over the Internet. Results from both studies 1.4 and 2.5 suggest that awareness of risk might be responsible for a sceptical attitude towards companies that operate over the Internet.

As previously described, people maintain privacy over personal information to avoid risk of vulnerability and the ability to exercise control over personal boundaries is essential for a sense of autonomy from the environment.

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

An efficacious regulation of personal boundaries, that is the regulation of the degree of concealing versus revealing, is important for the exercise of power, for the management of impressions and, above all, for avoiding the others' control and being able to exercise control over the social environment. As noted by Altman (in Petronio, 2002), the risk of data abstraction over the Internet is challenging the individuals' ability to exercise control over personal boundaries. The ability to maintain privacy and exercise control over personal information is becoming more relevant as information technologies put personal privacy at risk. Altman (*ibid.*) remarks that people face the difficult choice to decide between taking advantage of the opportunities introduced by new technologies or adopting risk avoidance behaviours, that is, avoiding the disclosure of personal information and withdrawing from e-commerce exchanges.

Results from study 1.4 indicated that risk avoidance behaviours and privacy concerns might be associated with beliefs of lack of control over the potential outcomes of the exchanges with companies. In contrast, personal beliefs of being able to exercise control over the outcomes of the exchange of information with companies, that is the belief of being able to obtain benefits and control risks, might be associated with higher acceptance of information collection and with lower privacy concerns. On the basis of the literature that suggested the role of perceived control for the regulation of personal boundaries and drawing on previous self-efficacy research, the second part of this thesis attempts an explanation of individual differences in self-disclosure behaviours and privacy concerns as a function of perceived self-efficacy beliefs. This

The mediating role of risk awareness. Relationships between trust, reward and disclosure

Chapter 5

hypothesis adopts the theoretical framework of Social Cognitive Theory by Bandura (1986) and conceptualises self-disclosure as a goal-oriented behaviour that might be affected by personal control beliefs in boundary regulation and interpersonal exchanges.

In part two of the thesis the hypothesis of a socio-cognitive model of influences on self-disclosure and privacy concerns is developed and tested. The literatures on the self-efficacy construct and Social Cognitive Theory are reviewed in the next chapter. Next the hypothesis of the role of self-efficacy for the explanation of self-disclosure behaviours is tested with two studies.

PART II

CHAPTER 6

The Social Cognitive Theory in the explanation of human agency

6.1   Introduction

Results from study 1.4 suggested individual differences in self-disclosure behaviours and privacy concerns that might be potentially influenced by control beliefs in the exchanges of personal information with companies. As described in chapter 2, psychological literature that focuses on human interactions emphasises the role of control for the regulation of personal boundaries. Based both on this literature and on self-efficacy research showing the impact of control beliefs on prosocial behaviours, in this second part of the thesis the hypothesis of the role of control within a socio-cognitive framework for the explanation of willingness to disclose and privacy concerns is developed and tested. In the attempt to extend on previous conceptualisations as proposed in the existing literature, the impact of self-efficacy beliefs is evaluated with particular focus on the interpersonal context. Although the literature on privacy in e-commerce derives most of its assumptions from psychological research conducted in interpersonal contexts, the application of the findings presented here (chapter seven) to an e-commerce context is discussed as a hypothesis only and with respect to a future research agenda.

The centrality of the theme of control has been outlined by previous marketing and public policy literature on privacy in e-commerce. Drawing on the social psychology literature on privacy and self-disclosure authors signalled that privacy concerns might be solved by addressing an individual need for

control, which appears to reflect a need for control over the risks associated with the use of personal information (e.g. Culnan and Armstrong 1999; Milne 2000). Indeed, in the psychological literature the theme of control is central in the conceptualisation of privacy. As reported in Chapter 2, the regulation of privacy has been described as an interpersonal boundary process by means of which people exercise control on their level of contact with the others (Altman, 1975; Hinde, 1997; Petronio, 2002). According to this interpretation, the regulation of privacy is important for self-definition. The perceived ability to regulate contact when desired provides positive feedback on the individual's efficacy in dealing with external influences and this is important for the development of a sense of individuality (Altman, 1975; Derlega *et. al.* 1993; Hinde, 1997). The regulation of personal boundaries involves managing a balance between revealing and concealing. Revealing personal information is necessary for self-presentation, for the development of intimacy and, generally, for the pursuing of interpersonal goals which involve sharing one's individuality with the others. However, as revealing personal information potentially expose to others' influences and control, individuals must control their disclosing behaviours in order to maintain an autonomous sense of self. An efficacious boundary regulation involves being able to choose the right information to disclose and exercise control over personal information. The exercise of control over personal information is then fundamental for maintaining autonomy from the environment. Concurrently, it is by managing a right balance between revealing and concealing that people can be efficacious in interpersonal relations.

Also in the context of commercial exchanges revealing personal information can be both beneficial and risky. As it has been described, the context of e-commerce is a particularly risky environment for what it concerns the individuals' ability to exercise control over personal information. Activities of data abstraction, for instance, reduce personal control over information. On the other hand, as Altman (in Petronio, 2002) pointed out, individuals might be motivated to share personal information in order to benefit from new opportunities of communication and exchange. This suggests that issues of perceived control over the regulation of personal boundaries, which also involve perceived control over personal information, might have an influence on the motivation to disclose in e-commerce exchanges.

The important impact of perceived behavioural control on motivation for the explanation of behaviour is a main focus of the Social Cognitive Theory by Bandura (1986). For the Social Cognitive Theory, perceived control on the ability to regulate actions in order to obtain certain positive results affects behaviour through its impact on motivation (ibid). Specifically, self-efficacy beliefs have been shown to be an important factor for the prediction of behaviour. As it will be discussed further, research has shown that perceived self-efficacy in organising courses of actions that are necessary for positive attainments is an important predictor of the intention to act in a variety of behavioural domains. Conversely, a low sense of personal efficacy has been shown to predict avoidance behaviours and withdraw from action (see Bandura, 1996).

Social Cognitive Theory maintains that human behaviour can be explained as the result of a process of reciprocal influences between personal factors, environment and behaviour. This theory allows explaining the impact of the environment on behaviour by looking at the influences that the environment has on cognition but also taking into account the effects that personal factors have on the environment. The present thesis adopts the interpretation of Social Cognitive Theory for discussing the impact that social changes such as the increased risk introduced by technological innovation have on the individuals and their behaviour in the environment. As described in study 1.4, perceived environmental risk and perceived control beliefs appear to concur in determining willingness to disclose and privacy concerns. This thesis presents the hypothesis that self-efficacy beliefs might influence the regulation of self-disclosure. On the basis of previous research that demonstrate the role of perceived social efficacy on prosocialness and interpersonal communication (e.g. Caprara *et al.* 1999), two studies have been conducted to measure the relation between perceived control beliefs in the regulation of personal boundaries, social and interpersonal control beliefs, and disclosure behaviours.

Before discussing in more detail how self-disclosure behaviours may be explained within a socio-cognitive model of influences, in the present chapter the social cognitive theoretical perspective and the construct of self-efficacy are reviewed. First the concept of triadic reciprocal causation between individual, environment and behaviour is examined, second the concept and the implications of self-influences are discussed, finally the sources, the structure

and the measurement theory of self-efficacy are presented.

6.2   Social Cognitive Theory. A model of triadic reciprocal causation

In Social Cognitive Theory, human agency operates within an interdependent causal structure involving triadic reciprocal causation between behaviour, cognition and environment (Bandura, 1986). The Social Cognitive Theory stemmed from Bandura's contribution to Social Learning Theory (1969; 1977). Bandura's Social Learning Theory improves upon the strictly behavioural interpretation of modeling provided by Miller and Dollard (1941). It emphasises the importance of cognitive factors in the learning process of observing and modeling emotional reactions, attitudes and behaviours of others. Indeed, while the Social Cognitive Theory upholds the behaviourist notion that response consequences mediate behaviour, it extends on previous Social Learning approaches by placing a heavy focus on the role of cognition. Central to the theory is the understanding that human beings have unique capabilities that provide them with the cognitive means by which they can shape their own destiny. In Bandura's view, behaviour is largely regulated antecedently through cognitive processes. It is the human ability, named self-reference, to observe response consequences and, consequently, form expectations of behavioural outcomes before the behaviour is performed that regulates the intention to act. Moreover, Social Cognitive Theory posits that the environment is an additional, important, source of observable response consequences. Individuals form

outcome expectations also through vicarious experience, by observing behavioural results from models they can identify with.

In Social Cognitive Theory the link between environment and individual is not unidirectional (in the form of external stimuli that affect behaviour) but involves reciprocal functional dependence between personal factors, behaviour and environmental events. However, with the concept of reciprocal interaction between persona, environment and action, Social Cognitive Theory does not imply that all the sources of influence are of equal strength or that their mutual dependence occurs simultaneously. In fact, the nature and the strength of their relative influence depend upon the individual, the specific behaviour being examined and the circumstances in which this behaviour occurs. Person-behaviour interdependence implies that one's emotions, thoughts and biological properties affect the way certain behaviours are carried out and, through the impact of motivation, the direction of behaviours. In turn, behavioural outcomes exercise both a direct effect on cognition when they are observed and interpreted by the individual by means of self-reference processes and an indirect effect through their impact on the environment.

A given behaviour will determine the environmental stimuli to which an individual is exposed by producing specific responses from the environment, such as when aggressive behaviours provoke hostile reactions. A second path of influences of behaviour on the environment occurs through selective attention processes. One's behaviour can affect the way the environment is experienced and thus its influence by selecting and focusing on specific dimensions of the

environment. With the concept of reciprocal causation, Social Cognitive Theory thus avoids the dualism between individuals and society and between social structure and personal agency. As Bandura (1986; 1989) maintains, people are both products and producers of the social environment. Within this conceptualisation of human agency, social structures are interpreted as resulting from individual behaviour in society and, at the same time, as external forces that guide human adaptation and change. As it will be discussed in the conclusions of this thesis, communication technology and technologically created risks influence the way consumers perceive themselves and their relations with organisations. Changes in the consumer identity and related need for control, in turn, explain the growth of consumers activist groups and the development of new technologies, which reflect the emerging of new structural forces.

In Bandura's view the effect of social structures on human behaviour is not explained in terms of rigid determinism. Both enabling resources and structural constraints are seen as factors that only partially shape people behaviour in given situations. Psychological factors such as individual perception of efficacy produce considerable variations in people adaptation to the environment and its structural forces. For instance, efficacious people are less likely to be discouraged by external constraints and can more easily exploit opportunities provided by the social system. In the context of e-commerce, for instance, efficacious people might be less discouraged by potential risks for privacy and more likely to take advantage of new opportunities for

communication and commerce. Social Cognitive Theory recognises the role of social influence on the self but also contends that through self-reference people process external stimuli and interpret them in a unique way, which reflects their own predispositions, interests, experiences and self-perceptions. Therefore, even if the environment exerts its effect on the self, individuals are not simply reactive to external forces. Human agency is seen as proactive toward the environment and, thus, directly responsible for what individuals become and do (Bandura, 1986).

PERSONAL FACTORS
(cognitive, affective, and
biological events)

BEAVIOUR ←————————————→ **ENVIRONMENT**
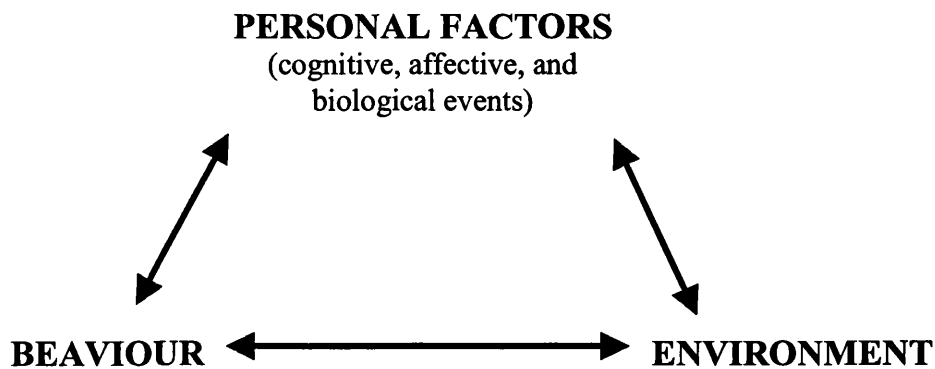
Figure 1. The relationships between the three major classes of determinants in triadic reciprocal causation (adapted from Bandura, 1986).

The theoretical perspective of triadic reciprocal causation attempts to overcome the dualism between sociostructural theories and psychological approaches. As underlined by Bandura (ibid.), human behaviour cannot be completely explained without taking into account the joint effect, and their reciprocal interaction, of both personal determinants and socio-cultural influences. The inductive approach adopted in the present thesis seems to confirm Bandura's claim. In Study 1.4 the impact of self-processes emerged as one of the key factors for the explanation of willingness to disclose in e-commerce. External factors, such as environmental risks, appeared to operate in concert with self-processes (e.g. self-perception of being able to deal efficaciously with companies) in affecting the intention to act. People who perceived themselves as able to deal with companies requesting information also reported higher willingness to disclose. On the basis of this result, this thesis attempts to verify the role of self-efficacy beliefs for the understanding and the prediction of self-disclosure behaviours. In the next section the concept of self-efficacy is described.

6.3 Self-Efficacy

With the publication of "Social Foundations of Thought and Action: A social Cognitive Theory", Bandura (1986) put forward a perspective of human functioning that recognises a central role for self-regulatory and self-reflecting processes in human adaptation and change. According to Bandura (1986)

individuals possess a self-system that enables them to exercise control over their thoughts and actions. Self-regulation is described as an internal control mechanism that governs what behaviour is performed with reference to certain self-imposed behavioural consequences. Self-regulation thus occurs, as a result of self-produced goal standards, within a process of discrepancy production (goal setting) and discrepancy reduction (work to attain a goal) (Bandura; 1977; 1986; 1989).

Self-reflection is functional to self-regulation. Through self-reflection individuals are able to evaluate their behaviours, thoughts and experiences (Dewey, 1933). Bandura (1986) contends that through self-reflection processes people form certain self-beliefs that will then affect subsequent behaviours. The information that people obtain about themselves and their experiences is used to develop beliefs about personal abilities and, consequently, will be used to regulate behaviour in concert with the beliefs created. Implicit in this view is the idea that personal resources, such as skills and knowledge, alone are not always good predictors of behavioural attainments. Bandura contends that different people with similar skills may perform poorly or extraordinarily according to their beliefs of personal efficacy. In a study on mathematical problem solving by children with different beliefs of personal efficacy, Collins (1982) found that although mathematical ability contributed to performance, within the same ability level, the success of performance was explained by beliefs about personal capabilities.

Self-beliefs in personal capabilities affect behaviour and behavioural

results through their impact on motivation. Bandura (1986) argues that people who perceive themselves as capable of obtaining positive results will be more persistent and less vulnerable to failure. These perceived capabilities and their effect on human agency are explained in Social Cognitive Theory with the construct of self-efficacy.

The construct of perceived self-efficacy refers to beliefs in one' capabilities to organize and execute the courses of action required to produce given attainments. Such beliefs influence the course of action people choose to pursue, the effort they put in and the level of stress-fear they experience in coping with environmental demands (Bandura, 1997). In Bandura's theory, self-efficacy is a major determinant of self-regulation. Self-efficacy is a kind of self-reflective thought that influences one's behaviour (Bandura, 1977; 1989). The relation between self-efficacy and behaviour is then mediated by the effect that perceived control beliefs have on the regulation of behaviour through their influence on the motivation to act.

Previous theories on self-reflective processes have often been focused on the self-concept. Some authors have described the self-concept as a generalised form of self-perceptions of ability that affects performance, task persistence and task choice (Harter, 1990; Eccles, Adler and Meece, 1984). Thus, the conceptual difference between self-efficacy and self-concept is not always clear in the literature. The two constructs have been used as synonyms (e.g. Reyes, 1984) and similarities between the two constructs have been emphasised (Harter, 1982). According to Bandura (1997) even if the global self-conception is tied to

certain areas of functioning, self-concept theorists fail to explain how the same self-concept can spawn different behaviours. For instance, individuals with a very high self-concept might be highly motivated and successful in professional relationships but still adopt avoidance behaviours when it comes to deal with different domains of functioning.

Previous research indicated that the construct of self-concept has weak predictive power on behaviour and that self-concept loses most of its predictiveness when self-efficacy is factored out (Pajares and Kranzler, 1995; Pajares and Miller, 1994). Self-efficacy differs from the construct of self-concept for the focus on specific behavioural domains. Schunk (1991) indicates that self-efficacy is a context-specific assessment of competence to deal with a given environmental demand whereas self-concept is generally measured at a more generic level and includes the feelings of self-worth associated with performance.

Self-efficacy refers to specific beliefs that the individuals have about the ability to organize and execute courses of actions that are necessary for competent performance with reference to a specific goal. This situational perspective implies that one's self-efficacy beliefs will vary according to the task, the environment, the skills involved and their interaction. Thus, a general notion of self-competence will not be equal to the individual's beliefs of self-efficacy for a given task under specific environmental constraints (Bandura, 1996). Conversely, for domain-specific levels of generality self-concept and self-efficacy can be empirically similar. Studies that subjected self-concept

items and domain-specific self-efficacy items to confirmatory factor analysis found that they load on the same factor (Skaalvik and Rankin; 1996). However, when domain specific self-concept items were factor analysed with problem-specific self-efficacy items different factors emerged (*ibid*).

A second construct that has been interchanged with self-efficacy is the concept of self-esteem. Specifically, self-esteem has been regarded as a generalized form of perceived self-efficacy. For instance, Harter (1990) treats self-esteem as deriving from judgments of self-worth and domain-specific self-perception of competence. Global self-worth, or self-esteem, is conceptualised as a superordinate property and assessed by measuring degrees of self-liking that are unrelated to specific areas of functioning. Bandura (1997) argues that there is no fixed relationship between beliefs about one's capabilities and whether one likes or dislikes oneself. Self-esteem is not affected by task specific self-efficacy beliefs unless these beliefs relate to activities in which people invest their sense of self-worth. Further, self-esteem does not predict behavioural attainments. Previous research on academic performance demonstrated that self-esteem affects neither academic performance nor personal goals, whereas self-efficacy beliefs predict the goals people set for themselves and their attainments (Mone, Baker and Jeffries, 1995).

As described above, for Social Cognitive Theory self-efficacy beliefs affect behaviour through their impact on motivation. Bandura contends that people's motivation to act is almost totally dependent on how much people perceive themselves as able to produce desirable outcomes through their actions.

According to this perspective, consumers' willingness to disclose might be dependent on their perceived ability to obtain benefits, such as relational or financial advantages, from their disclosure behaviours.

A similar relationship between outcome expectancies and behaviour has been described in previous expectancy theories (Kirsh, 1985). However, in expectancy theories outcome expectations are judgments or beliefs regarding the contingency between a person's behaviour and the anticipated outcome. Rotter (1954) operationalized the concept of outcome expectations with the construct of locus of control. An internal locus of control corresponds to the belief that reinforcements are products of the individual's behaviour. Thus, people who believe that through behaviour they can produce desired outcomes would be motivated to act. As operationalized by Rotter, expectancy has been assessed in ways that are highly similar to measures of self-efficacy. Kirsh (1985) notes that both self-efficacy and expectancy have been assessed by asking people to predict their degree of success in a task. In Kirsh's (*ibid.*) view, this operational equivalence is due to the conceptual overlap between the two constructs. The emphasis of this criticism is on the lack of operational difference between the expectancy that one will obtain positive outcomes if he or she performs a task and the belief of being able to perform a task in a way to produce positive outcomes.

Bandura (1997) clarifies that there is a conceptual difference between causal beliefs about the relationship between actions and outcomes (locus of control) and beliefs of personal efficacy. In Bandura's conceptualisation beliefs

about the locus of outcome causes and beliefs of personal efficacy have different influences on human behaviour and affective states. Although it is widely assumed that beliefs that one's actions determine outcomes give rise to a sense of efficacy and power, Bandura (1997) notes that this is not always the case. For instance, beliefs that actions determine outcomes when there is a lack of personal abilities determine a low sense of self-efficacy, which is accompanied by a sense of futility and by a decrease in the motivation to act. In attempting to explain the role of perceived control for the prediction of self-disclosure behaviours, this thesis, thus, adopts the construct of self-efficacy rather than the locus of control construct. Indeed, drawing on Bandura' s conceptualisation, this thesis suggests that the belief that our self-disclosure behaviours have a significant impact on the way people perceive and treat us might lead to a low sense of efficacy if we feel we lack the ability for a proper regulation of disclosure.

Further, authors have claimed that people visualize outcomes and infer their capabilities from their outcome expectations and thus that outcome expectancies and not self-efficacy beliefs determine actions (Eastman and Marzillier, 1984; Kirsh, 1985). Bandura (1997) answers this criticism by noting that this argument corresponds to the idea that outcomes that flow from actions are made to precede actions. On the contrary, performance is causally prior to outcomes. The outcomes that people experience depend, at least to a certain extent, on how one behaves. Bandura (ibid.) contends that outcome expectations are partly determined on people judgments of how well they will be able to

perform in given situations. Studies that have controlled for differences in self-efficacy beliefs indicate that outcomes expectancies make little contribution to the prediction of behaviours such as academic attainments (Lent, Lopez and Bieschke, 1991), social behaviour (Gresham, Evans and Elliott, 1988) and health habits (Carey, Kabra, Carey, Halperin and Richards, 1993).

Social Cognitive Theory distinguishes between domains that are totally under people's control and domains that are largely influenced by environmental factors. Bandura (1986) suggests that there is no single relationship between outcome expectations and self-efficacy beliefs. In activities where outcomes are highly dependent on quality of performance outcome expectations will be highly dependent on self-efficacy beliefs. In contrast, when behavioural outcomes are strongly influenced by environmental factors, such as social and cultural constraints, the type of outcomes people anticipate are not only dependent on how well people believe they will be able to perform. However, given a certain structure of contingencies between actions and outcomes, differences in perceived self-efficacy explain how much effort different individuals put into pursuing behavioural attainments or to what extent they adopt avoidance behaviours. For what it concerns self-disclosure behaviours in the context of e-commerce, outcome expectancies are likely to be strongly influenced by environmental factors. For instance, the awareness of environmental risks such as risks of data abstraction may lead consumers to expect negative consequences as a result of having revealed personal information. However, as study 1.4 appears to suggest, individual differences in perceived ability in dealing with

potential environmental risks may also affect the kind of outcome that people envisage from their self-disclosure behaviours and this might have an impact on their motivation to disclose.

6.4 Sources of self-efficacy

Bandura (1986; 1996) identifies four different sources of self-efficacy. They are: enactive mastery experience, vicarious experience, verbal persuasion, and physiological and affective states from which people may judge their capabilities.

The most influential source of self-efficacy beliefs is mastery experience, that is, the interpreted result of one's performance. Studies that compare the impact of different sources of information on the development of self-efficacy beliefs show that the effect of mastery experience is higher than the effect of other modes of influences such as vicarious experience and persuasion (Bandura *et al.* 1977; Gist, Schwoerer and Rosen, 1989). Bandura (1997) specifies that in order that people might develop a resilient sense of self-efficacy they need the experience of overcoming obstacles. In contrast, if the sense of self-efficacy is based on the experience of easy successes it is more likely to be negatively affected by failure.

Indeed, the relation between performance and self-efficacy is not a unique one. Although, in general, successful performance increases self-efficacy whereas unsuccessful performance lowers it, the impact of mastery experience

depends on the cognitive interpretation of personal capabilities. The interpretation of personal efficacy derives from the observation of performance. Bandura (1982) argues that personal capabilities, and related self-efficacy beliefs, are inferred from performance to the extent that personal factors are interpreted as major contributors to performance. This means that a number of other factors, such as for instance preconceptions about individual capabilities, beliefs about the impact of external factors on performance and perceived difficulty of the task influence the relation between previous performance and self-efficacy beliefs (Bandura, 1997). Sources of information on personal efficacy are also physiological states such as anxiety, stress and fatigue. People interpret physiological states as indications of their capabilities in coping with environmental demands. Emotional reactions to a task are part of the background information that people evaluate to judge performance and their capabilities (*ibid.*).

Informations about personal capabilities also derive from vicarious experience, that is, by observation of the effects produced by the actions of others. Bandura (ibid.) explains that for those activities, for which there are no absolute measures of adequacy, people judge their personal efficacy in relation to the performance of others. People use social comparison and refer to standardized norms of how well certain activities should be performed in order to gauge their own adequacy. If a context presents taxing environmental factors people are more likely to encounter difficulties and achieve negative results with their behaviours. In the context of e-commerce, invasions of privacy and

fraudulent activities have negatively affected many Internet users. People have been harmed for having revealed personal information over the Internet or couldn't obtain any advantage after having spent time and effort in completing on-line forms (see chapters 3 and 4). News about negative outcomes resulting from self-disclosure are also amplified and diffused by media communication. Especially when there is a lack of previous experience on which to judge personal abilities, information about others' negative results has an important impact on the individual's self-perception of efficacy. Consumers' self-efficacy beliefs in obtaining positive outcomes from self-disclosure behaviours might then be influenced by information about others' results.

Bandura (ibid.) indicates that often people appraise their capability by comparing themselves to peers and their attainments in similar situations. The extent to which self-efficacy beliefs are influenced by the model's attainments depends on the degree of identification with the model (*ibid.*). In a number of studies on peer modeling, it was shown that perceived similarity between the observer and the model has a positive impact on the effectiveness of modeling as a source of self-efficacy information (see Schunk 1987). For instance, with a study on the effect of peer modeling on self-efficacy for mathematics achievement, Schunk and Hanson (1985) demonstrate that same-gender peer modeling has higher effects on self-efficacy and performance than general peer modeling.

The effectiveness of modeling as a source of self-efficacy information has also been shown to be dependent on the perceived similarity with the model's

past performance. Brown and Inouye (1978) show that prior performance similarity influences vicarious self-efficacy judgements. In their experiment, participants had to solve anagrams along with peers who demonstrated frustration with the task. Then they received feedback that they were either equal or superior in abilities to the model. Participants who believed to be superior to the models maintained higher sense of self-efficacy and showed higher persistence in coping with failure in similar subsequent tasks.

People develop self-efficacy beliefs also as a result of the verbal persuasions they receive from significant others. Schunk (1984) indicates that positive feedback from significant others in the early stages of skill acquisition or when confronted with a given task for the first time has an important influence on the development of a personal sense of efficacy. In studies conducted with children with learning difficulties it was shown that a positive feedback on their capabilities could raise efficacy beliefs and performance (Schunk, 1982; Schunk and Cox, 1986). The role of verbal persuasion as a source of self-efficacy is particularly influential when people need experts' feedback on domains of activities about which they have only limited knowledge. In most of the cases, when learning new skills or performing within new domains of functioning, people develop a sense of self-efficacy on the basis of the feedback received by significant others (Bandura, 1997). As it will be discussed further, consumers' efficacy beliefs for the regulation of personal boundaries in e-commerce relationships might be supported by means of positive feedback from significant others and through communication that

shows models of positive attainments resulting from the exchange of information with companies. The last two studies of the thesis present a preliminary attempt to examine the opportunity to enhance motivation to disclose by means of expert feedback (studies 3.7 and 4.7).

In the next section the theory for the measurement of self-efficacy beliefs that was adopted for assessing perceived self-efficacy in self-disclosure behaviours (studies 1.7 and 2.7) is presented.

6.5   Structure and measurement of the self-efficacy construct

Bandura (1986) emphasises that self-efficacy theory regards capability systems not as a trait but as a differentiated set of self-beliefs related to specific domains of functioning.   Moreover, the concept of efficacy refers to a generative capability in which a number of subskills must be properly organised for the attainment of a specific goal. Perceived self-efficacy for a given domain of functioning refers to the perceived ability to organize and integrate a set of subskills into appropriate courses of action under a variety of circumstances and task demands. Therefore, as Bandura indicates, self-efficacy beliefs are not beliefs about one's skills but beliefs about the capability to use the skills and the talents that one possesses to cope efficiently with given environmental demands.

This conceptualisation has important implications for the assessment of

self-efficacy beliefs. Bandura (1997) takes the example of the measurement of perceived driving efficacy. When people's beliefs in their driving efficacy have to be measured, people are not asked about perceived ability in mastering specific subset of behaviours such as if they can turn the ignition key or accelerate. Rather they are assessed on their perceived abilities to orchestrate all these subset of behaviours under highly demanding conditions such as taxing traffic or narrow twisting roads (Bandura 1997).

Furthermore, Bandura (1997) points out that personal efficacy is not a contextless global disposition but it varies according to the situation and the domain of functioning under examination. For example a high sense of self-efficacy in mathematical problem solving is not necessarily accompanied by high self-efficacy in other academic domains. Similarly, if a higher level of generality is adopted, high social efficacy or emotional efficacy does not necessarily accompany a high academic self-efficacy. Therefore, the assessment of self-efficacy requires the use of instruments that are tailored to specific areas of functioning. As Bandura puts it *"This requires clear definition of the activity domain of interest and a good conceptual analysis of its different facets, the types of capabilities it calls upon, and the range of situations in which these capabilities might be applied"* (Bandura, 1997, italics added).

Further, self-efficacy beliefs vary according to the level of task demand. Only when the task presents some degree of difficulty individual differences in perceived self-efficacy are found. If the task is easy to perform everyone will have high self-efficacy beliefs. This is why for the construction of self-efficacy

scales items should represent various degrees of challenge to performance. Bandura (1997) suggests including contextual conditions that pose particular challenges to performance in order to increase the predictiveness of the scales. Another dimension on which self-efficacy beliefs vary is the level of generality. Certain self-efficacy beliefs may apply to more than one domain of functioning whereas others are more context specific. For instance social efficacy beliefs are likely to influence performance in any situations that involve interaction with others, whereas the impact of mathematical self-efficacy beliefs is limited to academic performance. Self-efficacy beliefs in boundary regulation might influence any behaviour that involves interpersonal communication and affect a number of domains of functioning, such as developing interpersonal relationships, negotiating power and managing impressions. Thus, in study 2.7 reported next, for the construct validity assessment of the items designed to represent self-efficacy beliefs in the regulation of self-disclosure the relation between these items and social efficacy and interpersonal control scales was measured.

Furthermore, self-efficacy beliefs vary in strength. The strength of self-efficacy beliefs determines the effort that people put into pursuing given behavioural attainments. Self-efficacy scales measure the strength of self-efficacy beliefs with items phrased in terms of judgements of capability behaviour. Bandura (1997) emphasises the importance to phrase the items in terms of "can do" rather than in terms of intensions with " will do" in order to distinguish the measurement of efficacy beliefs from the measurement of

intentions. Although self-efficacy beliefs are a major determinant of intentions, the two constructs are empirically and conceptually different. Further, Bandura (2001) indicates that in order that the measurement might have construct validity the items must reflect perceived capability and not other constructs such as locus of control, self-esteem and outcome expectancies.

The theory on the construction of self-efficacy scales also maintains that since self-efficacy beliefs do not share the property of invariance ascribed to personality traits, an accurate measure of self-efficacy does not necessarily remain stable over time. Bandura (1997) argues therefore that issues of reliability normally used to value the appropriateness of trait-based psychometric scales should not apply to the measurement of the self-efficacy construct. In contrast, it is underlined that self-efficacy scales should have face validity. Self-efficacy scales should be subjected to a construct validation process involving the test of the effects of perceived efficacy on motivation and actions (Bandura, 2001). The self-efficacy theory implies a network of relationships between self-efficacy beliefs, motivation and actions. Thus, the process of construct validation of a self-efficacy scale corresponds to a process of theory testing, in which the supposed relationships of mutual influences between self-beliefs and action are assessed (*ibid.*). In the next chapter, the hypothesis of the impact of self-efficacy beliefs on self-disclosure behaviours is presented. The test of this hypothesis is attempted by assessing the existing relations between self-efficacy in boundary regulation and in similar domains of functioning, such as, interpersonal control and social efficacy with self-reported

and behavioural measures of self-disclosure and privacy concerns.

6.6   Summary of Chapter 6

In the present chapter Bandura' s Social Cognitive Theory and the self-efficacy construct have been reviewed. It is indicated that Social Cognitive Theory extends previous Social Learning approaches by acknowledging that cognition has a significant role in the explanation of behaviour. In Bandura' view, human beings have the faculty of observing and regulating their own behaviour. Through self-reference processes and by evaluating environmental factors, people form outcome expectations, which, in turn, affect their motivation to act.

Cognitive processes thus mediate the influence of the environment on behaviour. This model of triadic reciprocal causation also implies that through behaviour people partially determine the kind of external stimuli to which they are exposed and, thus, that to a certain extent people select the impact of the environment on their cognition and behaviour. However environmental factors also operate directly on behaviour, by providing contingencies to which people need to adapt to and by affecting behavioural attainments.

Moreover, the chapter underlines that the model of triadic reciprocal causation of the Social Cognitive Theory allows overcoming the traditional dualism between sociostructural theories and psychological approaches. According to the Social Cognitive perspective, for a real understanding of human behaviour both socio-contextual influences and personal factors must be

taken into account.

Next, the chapter revises the construct of self-efficacy. It relates that Social Cognitive Theory postulates that self-efficacy beliefs are a kind of self-reflective thoughts that have a major impact in the explanation of behaviour. People develop self-efficacy beliefs by evaluating previous performance, by social comparisons, by vicarious experience through modeling, by verbal persuasion and by observing their own emotional and physiological reactions to a task. On the basis of this information, people form specific beliefs on their ability to organize and execute courses of actions that are necessary for certain attainments. Bandura's definition of the self-efficacy construct emphasises that efficacy beliefs vary according to the task, the environment and the skills involved. This situational perspective has important implications for the assessment of the construct. It is suggested that for the measurement of self-efficacy beliefs a deep understanding of the domain of interest is needed. This in order to identify the sub-set of capabilities that are necessary for the performance under examination and to evaluate the impact of different situations on these capabilities.

Further, Bandura underlines that individual differences in self-efficacy beliefs can be found when the contextual condition pose particular challenges to performance. For the design of self-efficacy scales, it is suggested that items should represent various degree of challenge under different situations. Moreover, the measurement theory of the self-efficacy construct emphasises that capability beliefs are changeable and vary over time according to the influences

to which they are constantly subjected. Self-efficacy beliefs thus do not share the property of invariance that usually characterises personality traits. Bandura argues that for the construction of self-efficacy scales the emphasis should be on the issue of construct validity rather then on reliability.

For the development of self-efficacy scales is then suggested the test of that network of relationships between efficacy beliefs, motivation and action that are implied by Social Cognitive theory for the explanation of behaviour. The process of construct validation for the construction of self-efficacy scales corresponds to a process of theory testing, in which the relationships between perceived efficacy beliefs for certain domains of functioning and the corresponding behaviour or motivation to act are assessed.

In the next chapter of the thesis the arguments for a social cognitive explanation of self-disclosure behaviours are presented. A scale for the assessment of self-disclosure efficacy is developed and the relationships between self-disclosure efficacy beliefs, social and interpersonal efficacy beliefs and self-disclosure motivation and behaviours are assessed with two studies. Furthermore, on the basis of the literature suggesting that persuasion from significant others is an important source of self-efficacy beliefs (e.g. Schunk, 1984), two experiments are conducted to test the potential relation between expert feedback and motivation to disclose.

CHAPTER 7

Self-efficacy determinants of self-disclosure and privacy concerns

7.1   Introduction

As described in chapter 2 of the thesis, an important theme in the self-disclosure literature emphasises the functional role of self-disclosure in the formation and the management of relationships (Altman and Taylor, 1973; Derlega and Chaikin, 1977; Derlega, Metts, Petronio and Margulis; 1993; Falk and Wagner, 1985; Dindia and Duck, 2000). Within this domain, self-disclosure is posed as a goal-oriented behaviour that people adopt to build intimacy (Altman and Taylor, 1973; Dindia 1994) and use as a tool for the control of relationships (see Duck, 1998). Authors indicate that through self-disclosure people can pursue a wide range of goals such as managing impressions, manipulating judgements and stimulating trust and liking (Spencer, 1994; West and Duck, 1996). Research has shown that self-disclosure is used strategically as a tactic of ingratiation (Slobin, Miller and Porter, 1968), to project oneself as normal and open (Duck, 1998), to express the intention to start a relationship (Derlega *et. al.*, 1993), and to elicit reciprocal disclosure (Miell, 1984; Miell and Duck, 1986).

The self-disclosure literature also emphasises that the revelation of personal information may involve risks. The possible uses that the recipient can make of the information revealed in self-disclosure constitute a risk for the discloser (Altman and Taylor, 1973). Research indicates that the potential vulnerability which may result from self-disclosure gives rise to privacy concerns, leading people to avoid the disclosure of information that might expose them to others' judgements or control (Baxter and Wilmot, 1985;

Derlega, Petronio, Metts and Margulis; 1993; Macdonald and Morley, 2001).

Authors have then pointed out that people manage interpersonal boundaries through the regulation of self-disclosure, maintaining distance from others in order to avoid risks or, conversely, developing closeness in order to pursue relationship goals (Derlega *et al.* 1993, Petronio, 2000; 2002). As described in chapter 2, dialectic perspectives on privacy and self-disclosure suggest that people need to feel in control over the regulation of privacy boundaries in order to determine the degree of vulnerability they are exposed to. In these terms, the ability to regulate personal boundaries effectively reflects the capacity of pursuing those relational benefits that may derive from disclosure while avoiding risks (Petronio, 2002). In Altman's (1975) view, managing interpersonal boundaries successfully means being able to exercise selective control over openness and closedness. Altman also maintains that privacy management is functional for the construction of an effective social identity, which allows people to pursue relational goals and exercise control over the social environment.

The present chapter explores the role of perceived control in determining boundary regulation behaviours. Drawing on the findings of study 1.4, it is proposed that the maintenance of privacy, as opposed to the disclosure of personal information, results from a perceived need to protect against the risk that can be experienced in interpersonal relationships when individuals believe they have low control over the outcomes of their self-disclosure behaviour.

Drawing on Social Cognitive theory (Bandura, 1986; 1997), this thesis

posits an agentic model of self-disclosure in which motivation towards openness is influenced by perceived efficacy of control over personal functioning and over the influence of others. As described in the previous chapter, the construct of perceived self-efficacy refers to the beliefs in one's ability to organize and execute the courses of action required to produce given attainments (*ibid.*). Research shows that unless people think to be able to produce desired outcomes by their actions, they have little or no incentive to act (e.g. Bandura and Cervone, 1983). Therefore, it is hypothesized that motivation to disclose may be higher when people perceive themselves as able to use self-disclosure efficiently for the pursuing of relational goals.

Moreover, the self-efficacy formulation suggests that negative outcome expectancies and fear are largely dependent on people's judgements of how well they will be able to perform in a given situation (Bandura, 1983; 1997). Previous research shows that perceived control reduces both anticipatory fear of aversive stimuli and avoidance behaviour (Lazarus, 1980; Miller 1979; 1981). Research on phobics also provides evidence that intensity of fear is a function of the strength of perceived coping abilities (Bandura and Adams, 1977; Bandura, Adams, Hardy and Howells, 1980; Bandura, Reese and Adams, 1982). Perceived ability to cope may play a similar role in privacy concerns. As previously described, the literature on self-disclosure suggests that privacy concerns result from the fear of being subjected to others' control and that the maintenance of privacy is aimed at obtaining independence from the power of other people (Altman, 1975; Jourard, 1966; Kelvin, 1973). How people perceive

the consequences of their self-disclosure and, in turn, how much they are concerned about privacy may be affected by their perceived ability to exercise a selective control on the degree of revealing and concealing in social relations, avoiding the other's control and preserving autonomy (see Altman, 1975).

Previous studies show that perceived social inefficacy operates within a network of socio-cognitive factors to determine social withdrawal (Bandura, Pastorelli, Barbaranelli, and Caprara, 1999; Caprara, Scabini, Barbaranelli, Pastorelli, Regalia and Bandura 1999; see Caprara 2001). Conversely, people who perceive themselves as able to obtain desirable outcomes in interpersonal exchanges engage in prosocial behaviours more than others (*ibid.*). In a study on an Italian sample of 324 adolescents, Caprara *et al.* (1999) found that personal beliefs of being able to manage interpersonal relationships efficaciously, starting and developing positive relationships while avoiding the others' negative influences, had a positive impact on social and psychological adjustment. These data indicate that interpersonal efficacy was negatively associated with depression and social withdrawn and positively associated with an open and prosocial behaviour towards the others. The present thesis postulates that perceived self-efficacy in managing the risks associated with disclosure and in reaching desired relational goals should result in increased openness to others and in a lower need for risk avoidance, that is, in a lower need for privacy. Moreover, on the basis of Caprara' s findings, it is expected that also social and interpersonal efficacy beliefs should be associated with self-disclosure behaviours.

The studies presented in the following sections aim to identify the dimensions of perceived self-efficacy that can lead to increased openness and, inversely, to lower privacy concerns. First, a battery of 22 items representing different abilities concerned with privacy protection and the regulation of self-disclosure was designed. In study 1.7 items were factor analysed and correlations with measures of self-disclosure and privacy concerns were computed. Of these items two factors, representing selective control on the information to disclose and strategic use of self-disclosure for the attainment of interpersonal goals, were positively correlated with self-disclosure and negatively with privacy concerns. Thus, they were retained to form a self-disclosure efficacy scale as they represent abilities concerned with the regulation of self-disclosure and are in line with the theories that illustrate the key facets of the behavioural domain of boundary regulation (Altman, 1975; Petronio, 2002). The self-disclosure efficacy scale was used in the second study.

On the basis of research showing an association between perceived social efficacy and prosocialness (e.g. Caprara *et al.* 1999), it is postulated that perceived social efficacy and interpersonal control would be positively related to self-disclosure and negatively related with privacy concerns. In the second study relationships between self-disclosure efficacy beliefs, social efficacy beliefs, interpersonal control, self-disclosure and privacy concerns are tested.

Furthermore, in Chapter 2 it was reported that a fairly consistent finding in self-disclosure research is that women disclose more than men and more intimate information (*cf.* Dindia and Allen, 1992; Reis, Senchak and Solomon,

1985). Previous research also indicates that women are more skilled than men in eliciting personal information from others (Miller, Berg and Archer, 1983). This led to the hypothesis that sex differences might also exist in the impact of self-efficacy beliefs. Thus, in study 2.7, separate analyses for males and females are conducted to explore potential differences in the weight that perceived control factors might have in predicting self-disclosure and privacy concerns.

The chapter concludes with two experiments that test the role of verbal persuasion from significant others on the motivation to disclose. According to the literature that indicates expert feedback as an important source of self-efficacy (Schunk, 1984, Bandura, 1986), it was hypothesised that positive feedback on personal abilities to regulate self-disclosure efficaciously would increase subsequent willingness to disclose whereas negative feedback would decrease it. Study 3.7 tests the effect of feedback type on willingness to disclose to a stranger. Study 4.7 attempts to improve manipulation by using the context of a student-teacher relation and tests the impact of feedback type also on willingness to disclose to a company for market research purposes. In assessing the relation between feedback type and subsequent motivation to act, both of the experiments account for the role of sex differences.

7. 2   Study 1.7 Privacy concerns and self-disclosure behaviours as functions of perceived capabilities in boundary regulation

7.2.1 Method

Overview

109 psychology students (45 men and 64 women, average age = 24.82, S.D. = 6.90) rated themselves on the following instruments: 1) a 22-item questionnaire measuring perceived self-efficacy in managing boundaries; 2) a 21-item questionnaire measuring past disclosure; 3) a 21-item questionnaire measuring willingness to disclose; 4) a six-item battery measuring privacy concerns. Correlations between self-efficacy items and measures of self-disclosure and privacy concerns were computed in order to identify areas of perceived efficacy in boundary regulation that might contribute to openness and, inversely, to privacy concerns.

Measures

Boundary regulation efficacy. The concept boundary regulation (see Altman, 1975, Petronio, 2002, chapter 2) provided the conceptual foundation for the generation of a 22-item battery. As according to the literature discussed above, people regulate self-disclosure to avoid closeness with others in response to perceived risk or simply to avoid getting involved in unwanted relationships, to develop intimacy and to pursue various interpersonal goals (Altman and Taylor,

1973, Duck, 1998).

Two behavioural domains that were assumed to be important for a sense of self-efficacy in boundary regulation were concerned with abilities in risk avoidance and personal protection, that is, abilities in protecting oneself from unwanted privacy intrusion and abilities in detecting possible causes of risk. Other areas that were considered as relevant were more specifically concerned with the regulation of self-disclosure. They were abilities to select the right information to disclose and abilities to reach relational goals through the use of self-disclosure. Thus, items selected ranged from personal protection to perceived control over the use of self-disclosure as a goal-oriented behaviour. Sample items are: "I never fail when it comes to judging other people's trustworthiness", "keeping intrusive people at a distance is not a problem for me", "If people ask me something personal I can answer without revealing too much or too little"; "By revealing personal information I can get people to like me more". Responses were made on a 7-point scale (1= completely disagree, 7= completely agree). Five researchers independently evaluated each item for a) relevance to the construct, b) clarity, and c) readability. 13 individuals pilot tested the items by completing the scale and by noting any unclear elements. Example of items that were discarded as they were considered unclear or not specific to the regulation of personal boundaries are "I can always get to know what I want", "When I disclose personal information I can get a payback".

Privacy concerns. A measure of privacy concerns was obtained by assessing the degree of concern related to six items ("Feeling that somebody is

watching me"; "Having to disclose personal details to a stranger"; "Knowing

that my privacy can be violated"; "Other people using my personal information

to hurt me"; "Being vulnerable because of privacy invasions"; "Being at risk

because someone gets access to my secrets"). Responses were made on a 7-point

scale (1= does not worry me at all, 7 = worries me a lot).

Self-Disclosure. Two identical 21-item questionnaires to measure past

disclosure and willingness to disclose to a stranger, respectively, were adopted

(the questionnaire is presented in appendix 2). Willingness to disclose was

selected to reflect individual differences in risk taking behaviour (disclosure to a

stranger) when there is the opportunity to gain some benefit from self-

disclosure. These questionnaires were developed by Jourard (1971) to assess

degrees of self-disclosure for different topics (e.g. "What are your favourite

forms of erotic play and sexual lovemaking?", "What are your usual ways of

dealing with depression, anxiety and anger?").

For the past disclosure questionnaire participants were asked to rate

themselves according to how much they have told someone in the past. For the

willingness to disclose questionnaire participants were asked to rate themselves

according to how much they would be willing to disclose to a stranger if they

could get some benefits. Answers were made on a 3-point-scale (0 = never; 1 =

partially; 2 = fully). The instructions to the questionnaires were the following:

"The following are a list of 21 questions asking for personal information

about yourself. For each question you are requested to indicate how much you

have told someone in the past and how much you would be willing to disclose to

a stranger that you have just met if this could provide you with some benefits.

For column 1 (somebody in the past) select NEVER (N) if you have never

talked about that item before, PARTIALLY (P) if you have talked just in general

terms about that item, but not in full detail, FULLY (F) if you have talked fully to

another person about that item.

For column 2 (stranger) select NEVER (N), PARTIALLY (P) or FULLY

(F) to state your willingness to disclose to a stranger about that item ".

7.2.2 Results

The 22 items representing boundary regulation abilities were subjected to an exploratory factor analysis in order to detect underlying dimensions. The Kaiser-Guttman rule indicated a seven-factor model whereas the scree test indicated a clear four-factor model. A four-factor, varimax-rotated, solution, as it was interpretable and accounted for the 50.6% of the total variance, was adopted. The four factors were labelled: "risk detection", "personal protection", "information control" and "strategic control". Table 1 presents the results of the exploratory factor analysis. Table 2 presents the items loading on the four factors.

Table 1. Factor loadings of varimax-rotated factors from the boundary regulation questionnaire [a]

Item number	Factor 1 Risk Detection	Factor 2 Personal Protection	Factor 3 Information Control	Factor 4 Strategic Control
2	**0.749**	0.166	0.123	0.149
4	**0.726**	0.177	-0.040	-0.099
12	**0.646**	-0.121	0.026	0.075
17	**0.575**	0.059	**0.389**	0.194
13	**0.446**	**0.427**	-0.091	0.201
15	**0.410**	-0.069	-0.092	0.034
1	0.163	**0.606**	0.231	-0.015
7	-0.071	**0.567**	-0.083	-0.036
22	0.146	**0.561**	0.257	-0.133
3	-0.128	**0.533**	0.192	0.164
10	0.108	**0.525**	**0.358**	-0.155
6	**0.392**	**0.437**	-0.675	0.174
11	-0.040	0.176	**0.690**	-0.039
9	0.188	-0.068	**0.651**	0.026
18	0.183	0.160	**0.469**	0.311
8	-0.037	0.328	**0.394**	-0.096
20	0.168	0.083	-0.090	**0.648**
5	0.121	-0.113	-0.081	**0.612**
14	**0.450**	0.216	0.122	**0.482**
16	-0.090	-0.194	0.264	**0.439**
19	-0.098	**0.392**	-0.012	**0.420**
21	-0.130	0.013	0.303	**0.378**

[a] Factor loadings greater than [0.35] are shown in boldface. The items along with their numbers are presented in table 2.

Table 2. Boundary Regulation Battery Items

Item number	Item
	Risk Detection
(2)	It is easy for me to know when it is risky to be open with others
(4)	I never fail when it comes to judging other people's trustworthiness
(12)	It is easy for me to understand people's intentions when they ask me something personal
(17)	I always know when it's best to avoid disclosing personal information
(13)	It is easy for me to see if it's dangerous to give my personal information away
(15)	I have no difficulties in recognising people who are better kept at a distance
	Personal Protection
(1)	Keeping intrusive people at a distance is not a problem for me
(7)	I can always find ways to avoid people who bother me with too much attention
(22)	If people judge me on the basis of past mistakes I can easily show that they are wrong
(3)	It is easy for me to protect myself from criticisms of my private life
(10)	Even with very intrusive people I can always preserve my autonomy
(6)	I can easily safeguard my image if someone wants to damage my reputation
	Information Control
(11)	I can control what people get to know about me
(9)	I am good at judging which information should best be kept private
(18)	It is easy for me to disclose only the information that is appropriate to a certain situation
(8)	If people ask me something personal I can answer without revealing too much or too little
	Strategic Control
(20)	I can gain a lot from the exchange of private information with others
(5)	By revealing personal information I can get people to like me more
(14)	By being open I can easily become close with the people that interest me
(16)	I can make people trust me as a result of having disclosed something private to them
(19)	It is easy for me to elicit private information from others
(21)	I can get people to reciprocate my disclosure with other disclosure

The "boundary regulation" battery items (Cronbach' alpha .80) were positively correlated with past disclosure $r = .299$, p <.001 and willingness to disclose $r = .335$, p <.001 and negatively correlated with privacy concerns (Cronbach' alpha .81) $r = -.342$, p <.001. However, results revealed that only the third "information control" and the fourth factors "strategic control" were significantly correlated with the selected theoretical constructs. Items of factor 3 represent selective control over personal information for boundary regulation, they measure perceived efficacy in the ability to select the information to be disclosed to others. Factor 3 "information control" correlated positively with willingness to disclose $r = .255$, p <.001, and negatively with privacy concerns $r = -.258$, p <.001. Items loading on factor 4 emphasise efficacy in using self-disclosure strategically for the attainment of interpersonal goals. The fourth factor "strategic control" correlated positively with past disclosure $r = .491$, p <.001, positively with willingness to disclose $r = .445$, p <.001, and negatively with privacy concerns $r = -.403$, p <.001.

Factor 3 "information control" and factor 4 "strategic control" reflect the conceptualisation of self-disclosure as a boundary regulation behaviour presented in the literature. Both Altman (1975) and Petronio (2002) maintain that people manage personal boundaries by regulating self-disclosure in order to pursue relationship goals and protect themselves from risks associated with revealing personal information. An effective management of privacy boundaries is important for the definition of self-identity. Altman (1975) argues that people have the need to feel in control over the regulation of their personal boundaries,

in order to exercise control over external influences and maintain autonomy from the environment. Further, Altman (1975) indicates that control over privacy boundaries corresponds to the exercise of a selective control over what information to disclose. This in order to avoid revealing information that can expose to risks and select the right information to disclose according to the context and the possible interpersonal goals.

Furthermore, in balancing the degree of revealing and concealing, people are motivated to reveal personal information when disclosure can lead them to obtain some benefits (Petronio, 2002). The motivation to reveal is then affected by the benefits that are expected as a result of disclosure. Interpersonal benefits can be reached by using self-disclosure strategically. For an efficacious boundary regulation people need to control the risk-benefit ratio (*ibid.*). In other words, boundary regulation behaviours imply dealing with risk by managing the degree of concealing and revealing but also using self-disclosure efficaciously in order to reach desired interpersonal goals. Factor 3 "information control" and Factor 4 "strategic control" were therefore retained to construct a scale that measures perceived self-efficacy in self-disclosure behaviours. Drawing on the theory for the measurement of self-efficacy discussed in the previous chapter, the other two factors were discarded as they do not represent specific abilities involving the regulation of self-disclosure.

7.3.   Study 2.7   Self-efficacy determinants of self-disclosure and privacy concerns

7.3.1 Method

Overview

Individuals who score high on "information control" and on "strategic control" should perceive themselves as able to obtain desirable outcomes in interpersonal relations involving the exchange of personal information. Thus, positive correlations between this two-factor scale, named self-disclosure efficacy scale, and measures of social efficacy and interpersonal control were expected. Further, multiple regression analyses were conducted to test the predictive power of the above perceived control constructs on measures of self-disclosure and privacy concerns. As reported earlier, separate analysis were conducted for men and women to compare the impact of the predictors across sex. Participants in this study were 171 undergraduate (35%) and postgraduate students (65%), residents of a University Hall. 88 participants were males and 83 participants were females. Mean age 26.79, SD 5.44. They were students of a variety of disciplines, including Psychology, Medicine, Law, Business, Economic, Sociology, Computer Sciences, at different London Universities (e.g. LSE, UCL, LBS). Participants were recruited by means of advertising notes and paid £ 2 for taking part in the study.

Measures

Self-disclosure efficacy. A principal component, orthogonally rotated, factor analysis confirmed a two-factor solution for the 10-items self-disclosure efficacy scale with loadings at .51 and above, accounting for the 58.19% of the variance (the results of the factor analysis are presented in appendix 3). Reliabilities for the first 6-item factor "Strategic Control" and the second 4-item factor "Information Control" were .79 and .83, respectively.

Social Efficacy. Perceived social efficacy was assessed by means of the Social Efficacy Scale (the scale is presented in appendix 4). This 13-item scale, firstly designed for children (Bandura, 1993) and then adapted for high school students by Caprara, *et. al.* (1999), includes items on the perceived capability for peer relationships, for self-assertiveness, and for leisure time social activities. The scale was adapted for university students by substituting terms referring to class situations with the word group, by dropping the word education in item four, substituting companions and classmates with colleagues. Responses were made on a 5-point scale (1= Not at all capable, 5= Very capable). A single index of social self-efficacy was computed as the sum of the items (Cronbach' alpha .74).

Interpersonal control. Perceived interpersonal control was measured with the Interpersonal Control Scale developed by Paulhus (1983) as a 10-item subscale of the Spheres of Control Scale pertaining to the domains of personal efficacy, interpersonal control and sociopolitical control (the scale is presented in

appendix 4). The interpersonal control scale assessed degrees of perceived control in different kinds of interactions with others. A sample item is: "When being interviewed I can usually steer the interviewer toward the topics I want to talk about and away from those I wish to avoid". Responses were made on a 7-point Likert scale (1= Disagree, 7= Agree). A single index of interpersonal control was computed as the sum of the items (Cronbach' alpha .68).

Privacy concerns. Privacy concerns were measured with the six-item scale adopted in the previous study 1.7; (Cronbach' alpha .89).

Self-Disclosure. Past disclosure and willingness to disclose were assessed with the two 21-items questionnaires used in study 1.7. In addition, a behavioural measure of self-disclosure was obtained by asking participants to answer an optional open question (i.e. "write about a difficult personal relationship you had in the past") if they wanted to be selected for future studies. This question was designed in order to measure depth of disclosure in a condition in which motivation to disclose is oriented toward a goal (take part in future studies). They were told that sample answers could be included in a PhD thesis and privacy was guaranteed on identification details (sample answers are presented in appendix 5). All the participants answered the open question. Answers were rated for depth by three raters on a 7-point scale and the word count was computed. The criteria adopted for the evaluation of depth of disclosure were 1) topics of disclosure, intimate versus non intimate, 2) information provided about

oneself versus contextual factors or other people (information about close relatives were considered more intimate than information about acquaintances or friends).

7.3.2 Results

Table 3 presents the means and the variances for the study variables. It also includes the two-tailed correlations among perceived control factors, privacy concerns and self-disclosure measures. Significant sex differences were obtained on some of the assessed variables. Analysis of Variance showed that compared to males, females had a lower perceived social efficacy F (170, 1) = 5.91, p < .05 (the mean of perceived social efficacy for males was 44.60, SD = 7.38 compared to 41.74, SD = 7.97 for females), but higher perceived self-disclosure efficacy F (170, 1) = 4.88, p < .05 (mean values for females 51.28, SD = 12.57 compared to 46.98, SD = 12.85 for males). The self-disclosure efficacy difference was primarily due to females' higher scores on the strategic control factor F (170, 1) = 6.58, p < .05 (mean values for females 30.10, SD = 9.33 compared to 26.60, SD = 8.53 for males). Females had disclosed more in the past F (170, 1) = 12.25 p < .005 (mean values for females 28.83, SD = 9.04 compared to 25.20, SD = 8.60 for males) and had higher ratings for depth of disclosure F (170, 1) = 31.30, p < .001 (mean values for females 5.45, SD =1.12 compared to 4.43, SD = 1.24 for males).

Table 3 *Correlation Matrix for Perceived Control Factors, Privacy Concerns and S-D measures*

Variable	*M*	*SD*	1	2	3	4	5	6	7	8
S-D Efficacy										
1. Information Control	20.77	6.48	-	.35**	.30**	.27**	.17*	.36**	.29**	-.41**
2. Strategic Control	28.30	9.07		-	.36**	.24**	.43**	.42**	.44**	-.28**
3. Social Efficacy	43.21	7.78			-	.27**	.30**	.30**	.26**	-.40**
4. Interpersonal Control	43.64	6.77				-	.34**	.28**	.31**	-.36**
5. Past Disclosure	27.12	8.77					-	.32**	.28**	-.29**
6.Willingness to Disclose	16.43	7.30						-	.26**	-.33**
7. Depth of Disclosure	4.93	1.29							-	-19**
8. Privacy Concerns	23.55	9.20								-

Correlations between theoretically related constructs

The "information control" factor showed positive correlation with social efficacy $r = .303$, p <.01, with interpersonal control $r = .272$, p <.01, with past disclosure $r = .170$, p <.05; with willingness to disclose $r = .366$, p <.01, with depth of disclosure $r = .292$, p <.01 and negative correlation with privacy concerns $r = -.418$, p <.01. The "strategic control" factor was positively correlated with social efficacy $r = .368$, p <.01, with interpersonal control $r = .247$, p <.01, with past disclosure $r = .431$, p <.01, with willingness to disclose $r = .427$, p <.01, with depth $r = .445$, p <.01 and negatively correlated with privacy concerns $r = -.288$, p <.01. None of the study variables was significantly related to the word count of the open question.

Predicting self-disclosure and privacy concerns from perceived control factors

In order to identify the domains of perceived efficacy that are related to self-disclosure behaviours and motivation, multiple regression analyses were performed between the perceived control constructs and the dependent variables

privacy concerns, past disclosure, willingness to disclose, and depth of disclosure. Tolerance statistics for the predictors strategic control, information control, interpersonal control and social efficacy were 0.79, 0.81, 0.87 and 0.80 respectively, suggesting that multicollinearity was unlikely. Table 4 presents the results of the regressions for men and women.

Table 4 *Predicting self-disclosure and privacy concerns from perceived control factors*

	Past Disclosure		Willingness to Disclose		Depth of Disclosure		Privacy Concerns	
	M	F	M	F	M	F	M	F
	β	β	β	β	β	β	β	β
Social Efficacy	.27*	.18~	.10	.11	.15	.22	-.28*	-.19~
Interpersonal Control	.24*	.21*	.17~	.14	.10	.16*	-.22*	-.21*
Information Control	-.09	-.03	.17~	.20*	.20~	-.00	-.22*	-.31**
Strategic Control	.20~	.33**	.23*	.30**	.19	.35**	-.04	-.07
R^2_{adj}	.22	.22	.22	.24	.19	.24	.29	.25

~$p < 0.10$. *$p < 0.05$. **$p < 0.01$. N = 171. M = males, F = females.

For both men and women, perceived social efficacy, interpersonal control and information control were significant negative predictors of privacy concerns. However, perceived social efficacy had a higher weight in the equation for men (β = -.28, t = - 2.51, p < 0.05) than for women (β = -.19, t = - 1.86, p < 0.10). Women's privacy concerns were especially accompanied by a low perceived control over personal information (β = - .31, t = 2.99, p < 0.01) whereas for men

information control alone accounted for less variance (β = -.22, t = 2.23, p <

0.05). A similar pattern of relationships emerged in the equation with past

disclosure as a dependent variable. Men's past disclosure was accompanied by

high perceived social efficacy (β = 27, t = 2.28, p < 0.05), interpersonal control

(β = 24, t = 2.38, p < 0.05) and marginally by perceived strategic control (β =

.20, t = 1.70, p < 0.10). For women, perceived strategic control was the most

significant predictor of past disclosure (β = .33, t = 3.20, p < 0.01), followed by

interpersonal control (β = .21, t = 2.97, p < 0.05) and by the only marginally

significant social efficacy (β = .18, t = 1.73, p < 0.10). Further, women with

high perceived strategic control (β = .30, t = 2.93, p < 0.01) and high perceived

information control (β = .20, t = 1.99, p < 0.05) were more willing to disclose

to a stranger. Perceived strategic control (β = .23, t = 2.02, p < 0.05) had a

major weight in the prediction of willingness to disclose for men too, while

perceived information control (β = .17, t = 1.76, p < 0.10) and interpersonal

control (β = .17, t = 1.68, p < 0.10) were marginally significant. In the equation

with depth of disclosure as a dependent variable, the predictor perceived

information control was only marginally significant (β = .20, t = 1.86, p < 0.10)

among men. In contrast, strategic control (β = .35, t = 3.36, p < 0.01) and

interpersonal control (β = .16, t = 1.58, p < 0.05) were significant predictors of

depth of disclosure among women.

7.3.3   Discussion

The present findings support the thesis that motivation to openness is affected by perceived control over personal functioning and over the influence of others. Self-disclosure outputs were influenced both by perceived ability to regulate self-disclosure efficiently for the attainments of relational goals and by perceived social and interpersonal control.

As discussed above, the literature on self-disclosure suggests that the maintenance of privacy, as opposed to openness, results from the need to avoid others' control (cf. Altman, 1975; Jourard, 1966; Kelvin, 1973). In this regard, it was postulated that those who feel they have little control in social relations and who feel that they cannot successfully manage attempts by others to control them will avoid risks related to openness by seeking personal protection through the maintenance of privacy. Conversely, people who perceive themselves as able to cope efficiently with others' attempts to control them should present with lower needs for risk avoidance. In line with these hypotheses, the present results show that people with high perceived social efficacy and interpersonal control had disclosed more in the past and, possibly expecting less negative outcomes from their social interactions, also reported lower privacy concerns.

The emergent relationship between self-disclosure and perceived social efficacy extends previous findings on the socio-cognitive determinants of social and psychological adjustment. Caprara and his colleagues have indicated the role that social efficacy beliefs have on psychological wellbeing and on various domains of performance through their influence on prosocial behaviour (Caprara and Pastorelli, 1993; Caprara et al. 1999; Caprara, Gerbino, and Delle Fratte,

2001). People with high perceived social efficacy engage in prosocial behaviours more than others. This, in turn, stimulates more positive environmental responses than if adopting socially alienating behaviours (Caprara, Barbaranelli, Pastorelli, Bandura and Zimbardo, 1998), contributing to the development of supportive relationships which reduce vulnerability to stressors and depression (Bandura *et al.* 1999). In addition to prosocial behaviour, Caprara and Gerbino (2001) remarked that both perceived efficacy in managing negative emotions and perceived efficacy in expressing positive emotions contribute directly to wellbeing by promoting positive interpersonal relationships. Being a major way for self-expression, and thus for establishing intimacy and managing relationships, self-disclosure plays an important role in psychological and social functioning. There is longstanding empirical evidence that indicate an inverse relation between self-disclosure and depression, social isolation and various conditions of psychological distress (*cf.* Comer, Henker, Kemey, Wyatt, 2000; Hamid, 2000; Kahn, Achter, Shambaugh, 2001; Macdonald and Morley, 2001). Through self-disclosure people can express emotions and communicate prosocialness. It is therefore plausible for self-disclosure to be explained within a sociocognitive system of mutual influences with social efficacy beliefs, similar to those described for prosocialness as significant determinants of social and psychological adjustment.

However, in the present study perceived social efficacy is related to past disclosure and, inversely, to privacy concerns more heavily in men than in women. Women's past disclosure was especially accompanied by high

perceived efficacy in using self-disclosure strategically for the attainment of interpersonal goals, whereas perceived inefficacy in selecting the right information to disclose contributed to women's privacy concerns more than the social efficacy constructs. Other sex differences resulted from these findings are consistent with previous research in showing that women disclose more than men and more intimate information (see Dindia and Allen, 1992; Reis, Senchak and Solomon, 1985) and that they perceive themselves less socially efficient (*cf.* Bandura, Pastorelli, Barbaranelli and Caprara, 1999). Interestingly, results were also consistent with research that indicate that men report themselves more willing to disclose to a stranger but when behavioural measures are adopted women appear to disclose more than men (see Dindia and Allen, 1992, chapter 2). Furthermore, as reported earlier, previous research also suggests that women are more skilled in eliciting disclosure from others (Miller, Berg and Archer, 1983). The present results extend the understanding of sex differences in self-disclosure, showing that women perceive themselves as more efficient in using self-disclosure strategically for the attainment of interpersonal goals and that, among women, this dimension of self-efficacy plays an influential role in self-disclosure.

These findings suggest the existence of a different pattern of sociocognitive variables for men and women. The results obtained for the willingness to disclose variable suggests that perceived efficacy in using self-disclosure strategically might exert its effect for both genders when the risk of disclosing to a stranger is accompanied by a reward. People who perceive

themselves as able to use self-disclosure efficiently for the achievement of relational goals have more positive outcome expectancies and also higher motivation to undertake the risk of disclosing to a stranger. However, for women, perceived strategic control also contributes to the depth of disclosure and to past disclosure. Women's self-disclosure appears to be more heavily affected by interpersonal goals. Perceived abilities in using self-disclosure strategically to stimulate trust and liking, elicit the other's disclosure and develop relationships contribute significantly to motivate women's openness. In addition to the role of strategic control, the contribution of both perceived control over the information to disclose and perceived interpersonal control suggests that women's disclosing behaviour is related, to a greater extent than for men, to perceived capabilities in using self-disclosure efficiently within a relational dimension.

In conclusion, this study provides empirical evidence for an agentic conceptualisation of self-disclosure. The emerged relationships between self-disclosure behaviours and self-efficacy beliefs indicate that people use self-disclosure as a goal-oriented behaviour and that personal beliefs in the ability to regulate self-disclosure efficaciously affect their motivation to disclose. Drawing on previous contributions that point to the strategic use of self-disclosure and describe self-disclosure as behaviour for boundary regulation, it is suggested that self-disclosure and privacy concerns can be described within a social cognitive model of influences on social and interpersonal dimensions. In line with the contributions that adopted a dialectic interpretation of the relation

between privacy and self-disclosure (Taylor, 1975; Petronio, 2002), the need for privacy can be interpreted as a risk avoidance behaviour by means of which people seek to preserve autonomy from others' control and avoid vulnerability. Perceived inefficacy in regulating self-disclosure and perceived social and interpersonal inefficacy are related to negative outcome expectancies and lower motivation to act. People with low self-disclosure efficacy expect to fail in selecting the right information to disclose and to have little chance to obtain relational benefits. In contrast, they fear that by revealing personal information they might become vulnerable, loose autonomy and be subjected to others' control. People with low self-disclosure efficacy beliefs have a greater need to conceal personal information, they report higher privacy concerns and are less eager to use self-disclosure as a goal oriented behaviour for the pursuit of personal benefits.

These studies represent a novel attempt to provide empirical evidence on the relation between personal control beliefs and behaviours concerned with the dialectic of revealing versus concealing. Furthermore, these findings might suggest a new framework for guidelines oriented to reduce consumers' psychological barriers against the exchange of personal information and, generally, against organisations that operate over the Internet. In the conclusions of the thesis, the opportunity and the importance of increasing consumers' control beliefs are discussed. It is suggested that social changes have made personal control beliefs more relevant and that strategies for augmenting consumers' self-efficacy beliefs might be implemented not only for the benefit

of marketing but also for the consumers' well being. Consumers need to feel in control over the output of exchanges with companies in order that it might be possible to reduce perceived power asymmetries in their relations with organisations. This thesis suggests that how self-efficacy beliefs are formed and how they can be further shaped is a new theme for public policy and marketing. For the implementation of strategies enhancing self-efficacy beliefs, results from study 2.7 can be taken as an indication of the behavioural domains in which control beliefs play a different role on self-disclosure behaviours across gender.

In the next section of the chapter two experiments that attempted a preliminary evaluation of the possibility to influence motivation to disclose by means of persuasion are presented. As previously discussed, an important source of self-efficacy beliefs is feedback received by experts. Expert feedback might be a potential strategy to adopt for increasing consumers' perceived control in the regulation of personal boundaries.

7.4   Studies 3.7 and 4.7. The effect of expert feedback on willingness to disclose

7.4.1 Introduction

In Chapter 6 verbal persuasion from significant others was identified as an important source of self-efficacy. When people have only limited information on which to judge personal performance or when confronted with new domains of activity, they rely on the evaluation of experts (Bandura, 1986). Schunk (1984) demonstrates that in

learning new skills people look for expert's feedback in order to obtain a competent evaluation of performance. Research has also showed a significant relation between expert feedback and subsequent performances. Students academic achievement was significantly related to the nature of the feedback received from teachers (*ibid.*; Schunk and Cox, 1986). Teachers are a typical example of significant others who can affect students' perception of abilities by evaluating performance (Bandura, 1986). Social Cognitive theory argues that feedback influences behaviour through its effect on perceived self-efficacy beliefs and self-regulation (Bandura, 1986). The next two studies aim to test the hypothesis of the effect of expert feedback on willingness to disclose. Both studies adopted the same method. It was assumed that a typical challenging condition in which the regulation of self-disclosure is particularly significant is the job interview. The job interview also appeared to be a behavioural domain for which people, especially young people at their first experience of job hunting, normally don't have enough personal knowledge for judging their own performance. Indeed, as personnel selection processes are becoming increasingly demanding, people refer to human resources experts to improve presentation skills and receive feedback on their abilities. Mock interviews and reviewing application forms are techniques that experts use to evaluate job seekers' performance. Studies 3.7 and 4.7 used a mock application form to test the effect of positive versus negative feedback on subsequent willingness to disclose.

7.4.2 Study 3.7

Participants

Eighteen participants aged 24-34 (mean = 26.77, SD =2.69), of which 11 males and 7 females, were recruited during a two day "Personal and Professional Management Skill" course organised by the graduate school of University College London. They were postgraduates students from a variety of disciplines: psychology (1), medicine (3), biochemistry (2), architecture (1), mathematics (1), philosophy (1), geography (2), computer science (3) mechanical engineering (1), history (1), political studies (1) economics (1).

Procedure and manipulation

Participants were invited to take part in a mock application study aimed at assessing relationships between demographic data, personal traits and job applications' content. As an incentive they were told that a human resource expert would evaluate the content of their mock application form and provide feedback on their abilities and potential success in a real job interview. Participants were asked to answer the questions on the mock application form as if they were making a real job application. They were told that questions had been chosen from a list of questions normally used for MBA students' recruitment and executive recruitment. Participants were also told that the expert was a professor of work psychology based at the Department of Psychology at University College London, with many years of experience in recruitment and personnel selection. A few days after the course, individuals who agreed to take part in the study were sent an email with a questionnaire including the mock application form. The mock interview questions were (examples of answers are presented in appendix 6):

1. Why did you choose your current postgraduate course? What do you find most fulfilling and most frustrating and what would you change? How do you hope to see your career progress over the 5 years?

2. Ask two people to describe your strengths and weaknesses; a personal friend and a professional colleague. How did they describe you, what were their reasons and what are your reactions?

3. Describe a situation, either professional or personal, where you faced a particular difficulty. What was the outcome, what did you learn from the experience and what would you do different if faced with a similar situation again?

Participants were asked to send back the completed questionnaire in the next few days in order that their answers could be evaluated and feedback provided at a follow up meeting of the Personal and Professional Management course. The meeting was scheduled for two weeks after the residential course. Reminders were sent over the following week to ask participants to complete the questionnaire and send it back before the meeting. Only 18 of the 60 individuals who had originally accepted to take part in the study actually replied to the message and sent the application back.

The subjects were randomly assigned to one of two groups based on the feedback that they were to receive. Half of the subjects were assigned positive feedback about their abilities in regulating self-disclosure efficaciously to succeed in a job interview and the other half received negative feedback (the feedback letters are presented in appendix 7 and 8).

At the meeting, participants were given an envelope containing the letter of feedback. The letter was signed with a fake name, Prof. John Hoffman, Ph.D.. After they had read the letter, participants were invited not to share the results with others and asked to complete a short questionnaire including the willingness to disclose questionnaire (adapted from Jourard, 1971) adopted in study 2.7. As an incentive for

completing the questionnaire they were offered £ 3. The reward was offered in order to compensate for possible feelings of disappointment associated with the negative feedback and to further emphasise that the questionnaire was unrelated to the mock interview study. Once they had completed the questionnaire, they were fully debriefed both verbally and in written form. Participants were given a paper in which all the details of the manipulation were presented. The aim of the study was explained to them, they were thanked for their participation and the experimenter offered to send them the results of the analysis. When the results of the analysis were sent, the manipulations performed through positive and negative feedback were underlined once again.

Results

A 2x2 Analysis of Variance (ANOVA) with type of 'feedback' (positive versus negative) and 'sex' revealed a marginally significant main effect of feedback type on 'willingness to disclose', F (1,14) = 3.61, p = 0.078, suggesting that participants who received a positive feedback were slightly more willing to disclose compared to the negative feedback group (the mean of willingness to disclose after positive feedback was 26.44, SD = 7.92, compared to M = 17.88, SD = 5.81, of willingness to disclose after negative feedback). However, since the level of significance was above the 0.05 standard this result can be taken as an indication only. No significant sex differences were found, and the interaction between feedback sign and sex was also not significant. Furthermore, due to the very small cell size of sex per type of feedback (e.g. females split by positive and negative feedback are three and four, respectively) and to the small sample size (N = 18), this study is considered as a pilot study for the study presented

Self-efficacy determinants of self-disclosure and privacy concerns

next.

Table 5

ANOVA On Willingness to Disclose by Feedback sign and Sex				
Source	**d.f.**	**Mean Sq.**	**F – stat.**	**Prob.**
Main Effects				
FEEDBACK	1	166.412	3.616	.078
SEX	1	120.713	2.623	.128
Interaction				
Feedback * Sex	1	.765	.017	.899
Explained	3	152.757	3.320	.051
Residual	14	46.016		
Adjusted R Squared	2.9%			

7.4.3   Study 4.7

A second study using the same manipulation procedure was performed. To improve on the previous design, the study was carried out in a teacher-student context in order to increase the credibility of the expert. Further, the hypothesis of the relation between feedback and motivation to disclose was measured with an additional questionnaire assessing willingness to disclose to a company that collects information for market research purposes.

Participants

Participants were 43 undergraduates of a psychology course at London School of Economics. They were 27 females and 16 males. Aged 19-26 (M = 21.06; SD = 1.75).

Participants took part in the study during class hours as part of the programme on work psychology.

Procedure and Manipulation

After a class on the applications of personality theory in work psychology for personnel selection and assessment, students were invited to complete a mock application form. They were told to answer as if they were making a real job application, as they would have the opportunity to receive expert feedback about their abilities to succeed in a job interview. As in the study above the expert was depicted as a Professor and well-known consultant in work psychology who was based at University College London.

Feedback was again randomly assigned. Letters with positive and negative feedback were given to students the following week. Participants were asked to not share the content of the evaluation received with their colleagues and were asked to complete an additional questionnaire. The questionnaire included the willingness to disclose questionnaire adopted in studies 1.7, 2.7 and 3.7 and a 9-item questionnaire assessing willingness to disclose to a company adapted from study 2.5. The 9-item selected were the high sensitivity items developed in study 1.5. Sample items are "Have you ever taken drugs, and if so which" and "What characteristics of your parents do you dislike" (the questionnaire is presented in appendix 9). After they had completed the questionnaires they were fully debriefed. The explanation of the study also provided the opportunity to explain the self-efficacy theory, the theoretical aim of the study and discuss methodological issues, such experimental design, manipulation and the importance of debriefing.

Results

A 2x2 Analysis of Variance (ANOVA) with 'type of feedback' (positive versus negative) and 'sex' revealed a significant effect, albeit low, of feedback type on willingness to disclose to a stranger, F (1, 39) = 5.37 < 0.05 (the mean of willingness to disclose to a stranger after positive feedback was 27.38, SD = 7.15, compared to M = 21.09, SD = 7.72, of willingness to disclose after negative feedback). This result suggests that feedback type might be related to subsequent willingness to disclose. There was no significant effect of sex on willingness to disclose and also the interaction between sex and feedback type was not significant. Further, the Analysis of Variance on 'willingness to disclose to a company' showed a marginally significant main effect of 'feedback type', F (1, 39) = 3.42 < 0.07 (willingness to disclose to a company after positive feedback presented M = 29.19, SD = 12.00, whereas the mean value of willingness to disclose to a company after negative feedback was M = 22.72, SD = 10.17). Both the effect of 'sex' and the interaction between 'sex' and 'feedback type' on 'willingness to disclose to a company' were not significant. The correlation coefficient between willingness to disclose to a stranger and willingness to disclose to a company was r = .473, p = < 0.01, suggesting the possible cross-context generality of the self-disclosure construct.

Table 6

ANOVA
On Willingness to Disclose by Feedback and Sex

Source	d.f.	Mean Sq.	F – stat.	Prob.
Main Effects				
FEEDBACK	1	302.851	5.373	.026
SEX	1	74.371	1.319	.258
Interaction				
Feedback * Sex	1	5.891	.104	.748
Explained	3	167.142	2.965	.044
Residual	39	56.370		
Adjusted R Squared	1.2%			

Table 7

ANOVA
On Willingness to Disclose to a Company by Feedback and Sex

Source	d.f.	Mean Sq.	F – stat.	Prob.
Main Effects				
FEEDBACK	1	417.121	3.422	.072
SEX	1	167.334	1.373	.248
Interaction				
Feedback * Sex	1	98.817	.811	.373
Explained	3	250.056	2.051	.123
Residual	39	121.904		
Adjusted R Squared	0.7%			

7.4.4 Discussion

Studies 3.7 and 4.7 investigated the effect of feedback from significant others on the

motivation to disclose personal information. It was hypothesised that in the context of

a job application form, as young people have not yet developed enough knowledge about their abilities, evaluations of performance from an expert would affect subsequent self-disclosure behaviours. This hypothesis was not supported by the results of study 3.7. However, in study 4.7, when the experiment was conducted in an educational context the relation between expert feedback and willingness to disclose to a stranger was significant. Further, although results suggested the cross-context generality of self-disclosure, the motivation to disclose to a company in a market research setting did not appear to be significantly related to previous feedback as willingness to disclose to a stranger did. In line with Bandura's argument for which sources of self-efficacy are context specific (see chapter 6), the non-significance of this result suggests that verbal persuasion from significant others should be pertinent to the context in which the regulation of behaviour takes place. Future studies should investigate further if and how self-efficacy beliefs in the regulation of self-disclosure might be enhanced through verbal persuasion in the context of exchanges between consumers and companies and, more specifically, whether this can be applied in an e-commerce context.

7.5   Summary of Chapter 7

In this chapter the arguments for the role of self-efficacy beliefs in the explanation of self-disclosure and privacy are presented and tested. The chapter draws on the interpersonal relationship literature that describes self-disclosure as a behaviour by means of which people can pursue relational goals. For instance,

self-disclosure has been described as a way to develop intimacy, manipulate judgements, and stimulate trust and liking.

Furthermore, the theoretical conceptualisation of privacy and self-disclosure as resulting from a dialectic process for boundary regulation is revised. Using this theoretical framework, self-disclosure emerges as a behaviour that people regulate to achieve different degrees of openness or closedness. It is indicated that privacy is maintained to avoid risks of vulnerability and to avoid being subjected to others' control. Whereas private information is disclosed in order to pursue relational goals. Dialectic perspectives on privacy and self-disclosure allow conceptualising self-disclosure as a goal oriented behaviour that is influenced by beliefs on personal abilities. Specifically, the motivation to disclose appears to be affected by the feeling of being able to control risks and by beliefs of being able to achieve relational benefits. Authors have indicated that people need to feel in control of the risk-benefits ratio associated with disclosure.

Self-efficacy research that indicates that social withdrawal can be explained by a low sense of social efficacy is also discussed. Caprara and colleagues have shown that social efficacy beliefs influence prosocial behaviours. People who feel to be able to manage interpersonal relationships efficaciously engage in prosocial behaviours more than others. Thus, it is postulated that self-disclosure, as a behaviour for expressing openness to the others, should be influenced by similar efficacy beliefs on social and interpersonal domains of functioning. Consequently, privacy concerns are

conceptualised as a fear resulting from negative outcome expectancies. People who feel to have low control on the risks associated with disclosure, that is, who fear to be subjected to the others' judgements and control, are more likely to experience a higher need for privacy. Further, it is hypothesised that self-efficacy beliefs in regulating self-disclosure would lead to higher degree of openness and to lower privacy concerns. To test these hypotheses and develop a self-disclosure efficacy scale two studies have been conducted.

A first study is conducted to test the factor structure of a 22-item battery representing personal beliefs of abilities in risk avoidance, privacy protection, selective control of information to disclose and strategic control of self-disclosure for the attainment of relational goals. Correlations between these items and measures of self-disclosure and privacy concerns were also computed. Of this 22-item battery, two factors representing selective control and strategic control, respectively, were retained to construct a self-disclosure efficacy scale. They were selected because they were both concerned with the regulation of the behaviour of disclosure and also showed significant correlations with self-disclosure and privacy concerns.

In study 2.7 relationships between the self-disclosure efficacy scale, social efficacy, interpersonal control, self-disclosure and privacy concerns were measured. To account for possible sex differences separate analysis were conducted for males and females. Results confirm the hypothesis of a social-cognitive network of influences for the explanation of self-disclosure and privacy concerns.

Results from study 1.4 had suggested that people who feel able to manage the exchange of information efficaciously in a way to obtain personal benefits would be more willing to disclose and less concerned with privacy. The results reported in this chapter provide empirical support to this thesis. Self-efficacy believes of being able to control and manage social exchanges and to regulate self-disclosure efficaciously were associated with higher disclosure and lower privacy concerns. The self-disclosure efficacy scale showed higher predictive power for women than for men, whereas social efficacy beliefs appeared to be more important for the prediction of self-disclosure and privacy concerns among men.

The chapter concludes by presenting two experiments that aimed to test whether self-disclosure efficacy beliefs might be enhanced by means of verbal persuasion by significant others. Studies 3.7 and 4.7 provided some indication that expert feedback on previous self-disclosure performance might have a role in subsequent motivation to disclose. Study 4.7 showed that positive feedback on previous self-disclosure for a job application form was significantly associated with subsequent willingness to disclose to a stranger. However, the same feedback only showed a very low association with willingness to disclose to a company for market research purposes. This result suggests the need for more context-specific investigations where both expert feedback and willingness to disclose are concerned with the same self-disclosure domain.

In the next chapter, the findings of the present thesis are summarised and the possible integration between the results from part one and part two is

evaluated with the aim to detail a future research agenda.

CHAPTER 8

Discussion of findings and conclusions

Toward a social cognitive account of consumers' need for

control in the negotiation of privacy

8.1 Introduction

This thesis presents a socio-cognitive approach to the understanding of the phenomena of privacy and self-disclosure. Previous contributions have drawn extensively on the social psychological literature on self-disclosure and privacy in interpersonal relationships with the aim to identify solutions for collecting consumers' data and solve privacy concerns. The findings presented in part one of this thesis suggest the limitations of the literatures that attempt to apply interpersonal rules of self-disclosure to the context of Internet-based exchanges without considering the impact of perceived environmental risk on consumer behaviour. In explaining the effects of risk awareness, this thesis conceptualises self-disclosure behaviours as resulting from a network of socio-cognitive influences, where cultural and technological changes are in a relationship of reciprocal causation with human motivation and adaptation. In part two of the thesis, results from studies 1.7 and 2.7 show that motivation to disclose is affected by self-efficacy beliefs. In the attempt to detail a future research agenda, this thesis, thus, suggests that social changes, such as increased risk awareness, might have significant effects on the role that perceived control beliefs play in consumers' willingness to disclose. The findings presented in part one and part two are integrated to hypothesise that in modern societies consumers' awareness and the diffusion of information about risk might make self-efficacy beliefs particularly significant for the explanation of needs for privacy versus willingness to disclose.

One of the concepts that this thesis attempted to clarify with regard to self-

disclosure in an e-commerce context is the role of perceived control over personal information and its relation with trust in the recipient. Previous marketing literature suggests that consumers demand control over their personal information. In the interpersonal relationship literature, the theme of control over personal information is central in the dynamics of boundary regulation. The exercise of control over personal information emerges as necessary for preserving autonomy from external influences and for avoiding the risk of being subjected to the control of others. The marketing literature has then suggested that by providing consumers with control over the use of the personal information they have disclosed it is possible to address privacy concerns and build trust relationships (Culnan and Bies, 2003). Specifically, some authors contend that firms that communicate the adoption of fair information practices, which consist in offering some degree of control over the use of information, are perceived as more trustworthy. Indeed, a widespread assumption concerns the relation between the offer of control over information and the development of trust relationships. For instance, Culnan and Armstrong (1999) maintain that the offer of control signals that the firm can be trusted and if the firm's information practices are consistent with those originally declared consumers develop trust based on the positive experience, they are more willing to disclose and more likely to commit to the relationship.

Developing trust by providing control is seen as an appealing strategy for the collection of consumer information because, in interpersonal relationships, self-disclosure appears to be largely dependent on trust in the recipient. The interpersonal relationships literature interprets self-disclosure as a behaviour resulting from the evaluation of costs and benefits and explains that for the assessment of risks

associated with disclosure people take into consideration the trustworthiness of the recipient. A number of possible relational benefits might motivate people to reveal personal information but the extent to which they are willing to disclose is dependent on their perception of risk. The risks of individual vulnerability associated with the disclosure of personal information are due to the uses that the recipient can make of the information. Thus, trust in the recipient emerges as a key factor for the explanation of self-disclosure in the context of interpersonal relationships. Marketing and public policy contributions that draw on the interpersonal relationship literature put great emphasis on the role of trust in the recipient and on the necessity to provide some benefits in order to elicit consumers' private information.

This thesis argues for the importance of environmental risk perception for consumers' willingness to disclose. Whereas previous literature focuses on the relationship between consumers and firms, the present thesis emphasises that over the Internet risk perception extends beyond the relational dimension. Study 1.4 indicates that the need for control over personal information results from the perception of environmental risks. Technological advancements introduce new risks and also contribute to the diffusion of the perception of risk in modern societies. Results from study 1.4 show that awareness of risks is related to feelings of uncertainty and mistrust toward the Internet environment and toward any commercial exchange that is technologically mediated. Risk perception motivates a need for control that appears to be in contrast with the opportunity to relate with organisations as in trusted interpersonal relationships.

As it has been described in the review of previous literature, authors that

emphasise the impact of both trust in the recipient and of relational benefits on willingness to disclose also argue for the adoption of a situational approach in contrast with the perspectives that focus on human-computer interaction. The main argument used to criticise human-computer-interaction perspectives is that the computer only provides the context for exchanges and communication with other individuals or organisations. It is maintained that, even over the Internet, individuals behave according to their interpretation of the social situation, the goals that are at stake and the evaluation of trustworthiness and motives of the other partner of the interaction. Under this light, issues of brand perception, reputation and trust are of main relevance for companies that aim to collect consumers' private information and gain competitive advantages.

Part one of this thesis presents empirical results that extend on the above interpretations. Findings indicate that information about environmental risks have important implications for the relationships between consumers and companies. Specifically, it emerges that awareness of environmental risks leads consumers to become sceptical and to adopt a more pragmatic attitude by demanding control in order to compensate for the lack of trust in e-commerce exchanges. Thus, this thesis argues for the need to account for the effects of social and contextual influences on perceptions, motivations and behaviours related to privacy. Behaviour is not interpreted as a response to stimuli that derive from the isolated interaction between individuals and computers or firms but rather conceptualised as significantly influenced by the impact of culture and society on motivation and self-perception. Concurrently, self-perceptions of abilities in managing risk are not only externally

determined. Personal factors and previous experience have been described in Social Cognitive Theory as important determinants for the development of efficacy beliefs in dealing with environmental demands. Following this model of triadic reciprocal causation between cognition, environment and behaviour, the present thesis argues for a social cognitive approach to the study of consumer self-disclosure behaviours. In part one of the thesis, empirical evidence is provided for the argument that consumers' self-disclosure can be explained within a model of social cognitive influences, where awareness of environmental risks and self-perception of abilities in managing information exchanges concur in determining behaviour. In addiction, part two of the thesis shows the impact of self-efficacy beliefs on self-disclosure and privacy concerns with respect to an interpersonal context. This finding extends on previous conceptualisations on the role of control in boundary regulation behaviours and suggests the need to verify whether self-efficacy beliefs can also explain consumers' willingness to disclose in an e-commerce context.

In the following sections of the chapter, the empirical findings of the thesis are summarised. Next, the possible integration between the results from part one and part two is evaluated and a theoretical analysis of social changes affecting consumers in modern societies is proposed to suggest the emerging salience of control beliefs as a future research agenda. The chapter concludes by reviewing limitations of this work and by evaluating implications of the results for public policy and marketing.

8.2 Summary of empirical findings

8.2.1 PART I

Study 1.4: The effect of risk awareness on the relative role of trust and control

The first study of the thesis explored the theme of information exchange in e-commerce from a consumer's perspective.

Results indicate that a salient issue is the emerging awareness of information collection for marketing purposes. Participants appear to be aware of the market value of private information and of the methods adopted to collect and abstract consumers' data. Information that consumers receive about the trading of private information seems to be associated with the perception of personal data as a commodity and with worries about privacy and security. For instance, the offer of financial rewards against disclosure appears to activate the perception of risks associated with the trade of information as a commodity. As a result, participants report to avoid exchanging highly delicate information for financial rewards.

Another important finding of this study concerns consumers' reaction to risks. Findings do not support the thesis that, as suggested by Giddens (1991), consumers would respond to risk with a generalized trust in the other, rather they seem to react with scepticism and by demanding more active control over exchanges with companies. The demand for control appears to be a symptom of the lack of trust that pervades e-commerce relationships. Furthermore, risk awareness might lead consumers to be sceptical about the trustworthiness of companies even when they have a good reputation. Specifically, awareness of risk seems to affect the perceived

trustworthiness of well-reputed companies. The present study suggests that when there is risk awareness reputation is perceived as a possible guarantee against risks rather than as a sign of trustworthiness.

Results indicate that awareness of the trade of personal information, and the associated lack of trust, leads consumers to react by avoiding the disclosure of personal information or by asking for more control and rewards against disclosure. In contrast with the argument presented in previous literature (Culnan and Armstrong, 1999), the exercise of control does not appear to be conducive to trust but rather seems in contradiction with the development of institutionalised trust relationships. The exercise of control over personal information emerges as a protection against the perceived risk that results from the lack of trust and that, as such, can have a compensating role for the lack of trustworthiness. Thus, findings suggest that by providing control over information companies may still aim at establishing successful relationships but more based on cooperation principles and less on trust.

Results also suggest that individual differences in willingness to disclose and privacy concerns might depend on personal beliefs of being able to exercise control over the outputs of exchanges with companies. Individuals who appear less concerned about privacy and more willing to involve in the exchange of private information with companies also report to feel able to manage exchanges with companies successfully. They are less concerned about privacy and emphasise the opportunity to negotiate and obtain some benefits by disclosing personal information while they perceive themselves as able to cope efficiently with attempts of privacy intrusion.

Study 1.5. The development of a questionnaire measuring willingness to disclose

In study 1.5 a questionnaire for the measurement of the willingness to disclose for topics of different levels of perceived sensitivity was constructed.

Twenty-six items were selected with the help of market researchers who suggested topics ranging from easy to difficult to collect. The 26-item questionnaire was then administered to 84 participants in order to obtain a measure of perceived sensitivity for each item. Participants' ratings allowed low, medium and high sensitivity items to be distinguished. Results indicate that consumption preferences and general habits are perceived as low sensitive information and that perceived sensitivity increases when questions concern health, finance, personal relationships and sexual habits.

This study provides a novel instrument for the measurement of consumers' willingness to disclose for topics with different degrees of perceived sensitivity when questions are asked within a market research context. This instrument was adopted in study 2.5.

Study 2.5. The mediating role of risk awareness. Relationships between trust, rewards and willingness to disclose over the Internet

An experimental study was conducted to examine (a) the impact of reputation on willingness to disclose; (b) the relation between reputation and perceived trustworthiness; (c) the impact of financial rewards on willingness to disclose; (d) the

mediating effect of awareness of risks on the relation between reputation and willingness to disclose; (e) the moderating effect of awareness of risks on the relation between rewards and willingness to disclose high sensitive information; (f) the relation between willingness to disclose and perceived data sensitivity; (g) the relation between willingness to disclose, data sensitivity and reputation.

On the basis of the results of study 1.4, it was expected that both reputation and rewards would have a significant positive effect on the willingness to disclose. In the marketing literature there is a suggestion that when attributions of trustworthiness cannot be based on previous experience, perceived trustworthiness derives from company reputation (Einwiller and Will, 2001; Doney and Cannon, 1997; Jarvenpaa and Tractinsky, 1999). Thus, it was expected that reputation would have a positive effect on perceived trustworthiness. Results confirmed the impact of reputation on perceived trustworthiness and on willingness to disclose. Willingness to disclose was higher when the company was described as well-reputed and reputation was associated with higher perceived trustworthiness. In contrast, the hypothesis on the effect of reward on willingness to disclose was not supported. Results from study 1.4 also suggested that the offer of financial rewards might have an opposite negative effect on willingness to disclose when consumers are aware of environmental risks, such as data mining and trade of information as a commodity. Awareness of information collection for marketing purposes, increasing risk perception, might lead consumers to avoid trading highly sensitive information. On the basis of these findings, it was expected that awareness of risk would moderate the relation between rewards and willingness to disclose high sensitive information. However experimental

results did not confirm the effect of reward on disclosure and neither showed a significant effect of awareness of risks on the relation between rewards and disclosure for high sensitive information. Results from study 1.4 also suggested that awareness of risks might decrease the perceived trustworthiness of well-reputed companies. Thus, it was hypothesised that awareness of risk would have a mediating effect on the relation between reputation and willingness to disclose. This hypothesis was supported. Awareness of risk decreases willingness to disclose to well-reputed companies by reducing the effect of reputation on perceived trust. Finally, it was expected that willingness to disclose would decrease as the perceived sensitivity of the information increases and that the effect of reputation on willingness to disclose would be more significant with higher levels of data sensitivity. Both of these hypotheses were supported.

8.2.2 PART II

Study 1.7. Privacy concerns and self-disclosure behaviours as functions of perceived capabilities in boundary regulation

Previous literature that interpreted privacy and self-disclosure as two aspects of the same dialectic process for boundary regulation emphasised the importance of feeling in control of the degree of contact with the others (e.g. Altman, 1973). Petronio (2002) suggests that people need to exercise control over the degree of revealing versus concealing in order to control the risk-benefit ratio associated with disclosure.

Further, the opportunity to attain relational goals through self-disclosure motivates people's openness whereas people are concerned about privacy when they fear becoming vulnerable to control by others (Altman, 1973; Petronio 2002). Adopting the operational approach of Self-Efficacy Theory (Bandura, 1986), study 1.7 attempted to identify the domains of perceived control in boundary regulation that would have a significant impact on the motivation to disclose or, conversely, on the need for privacy in an interpersonal context. A first exploratory hypothesis postulated that perceived efficacy in recognising and avoiding conditions of risk, perceived efficacy in protecting privacy and using self-disclosure efficaciously for the attainment of relational goals were all control beliefs that could potentially affect self-disclosure behaviours. A 22-item battery was developed with items that ranged from efficacy beliefs on personal protection to perceived abilities in using self-disclosure strategically. Factorial analysis indicated a four factors solution. Of these four dimensions concerned with boundary regulation only the items representing the ability to exercise control over personal information and to use disclosure strategically for the attainment of interpersonal goals were significantly correlated with self-disclosure and privacy concerns measures. Previous literature that described self-disclosure as a behaviour for boundary regulation put emphasis on the role of perceived control over the degree of revealing and concealing for both risk avoidance and for the pursuing of relational goals (Petronio, 2002). Further, self-efficacy theory states that for the construction of self-efficacy scales it is necessary to identify the specific domains of perceived control that are directly related with the regulation of the behaviour under study (Bandura, 1996). For the above reasons results from study

1.7 were taken as an additional indication for the elaboration of a theory of self-efficacy determinants of self-disclosure. The two factors representing perceived abilities to exercise control over personal information and to use self-disclosure strategically were retained to construct a self-disclosure efficacy scale.

Study 2.7 Self-efficacy determinants of self-disclosure and privacy concerns

The fifth study of the thesis tested the theory of the impact of self-efficacy beliefs on self-disclosure behaviours. On the basis of the results from study 1.7, it was expected that self-disclosure efficacy beliefs, that is, beliefs about the ability to exercise selective control on the information to disclose and beliefs about the ability to use self-disclosure strategically would be positively related with self-disclosure and inversely related with privacy concerns.

Furthermore, previous literature has interpreted the need for privacy as resulting from the fear of being subjected to the other control, to loose autonomy and be vulnerable to the others. It has been pointed out that people avoid self-disclosure to avoid vulnerability in the relationship with others (Altman and Taylor, 1973) and that the regulation of personal boundaries is necessary for the exercise of control over the influences of others (Altman, 2002). The ability to manage interpersonal exchanges efficaciously has been described in self-efficacy research as a predictor of prosocialness (Caprara *et al.* 1999). People with high social efficacy beliefs engage in prosocial behaviours more than others. Social efficacy beliefs, through their influence on prosocialness, have a positive effect on well-being. The sense of being socially

efficacious contributes to well-being by stimulating prosocial behaviours, which in turn promote positive interpersonal relationships (*ibid.*). Similarly, self-disclosure is positively related to well-being and inversely related with social isolation and withdrawn (Comer, Henker, Kemey, Wyatt, 2000; Hamid, 2000; Kahn, Achter, Shambaugh, 2001; Macdonald and Morley, 2001). It was then expected that social efficacy beliefs and interpersonal control would be positively associated with self-disclosure and negatively associated with privacy concerns.

Results indicated that personal beliefs of social efficacy, interpersonal control and selective control on the information to disclose were all significant negative predictors of privacy concerns. Men's privacy concerns were particularly influenced by a low sense of social efficacy, whereas for women the perception to have low control on the information to disclose had a higher impact on privacy concerns. Social efficacy and interpersonal control beliefs were also particularly important for the explanation of past disclosure among men. In contrast, for women personal beliefs of being able to regulate self-disclosure strategically for the attainment of interpersonal goals had a higher impact on past self-disclosure behaviours. Self-efficacy beliefs in regulating self-disclosure for the attainment of personal benefits were a significant predictor of willingness to disclose to a stranger for both men and women. Overall, women's self-disclosure appears to be more significantly influenced by the perceived ability to use self-disclosure strategically. Among women the depth of the disclosure provided in the answer to the open question, to which participants had to answer if they wanted to be recruited in further studies, was also highly associated with strategic control beliefs. Other sex differences emerged in this study were consistent

with previous findings as they showed that women disclose more and more intimate information whereas men perceived themselves as more socially efficient. These findings corroborated the thesis that motivation to disclose might be affected by self-efficacy beliefs and extended previous literature on the social cognitive determinants of prosocialness and well-being. Self-disclosure, as a major way to communicate prosocialness, was influenced by positive outcome expectancies in interpersonal relationships whereas fear for personal privacy was explained by feelings of inefficacy in managing social exchanges.

Studies 3.7 and 4.7. The effect of expert feedback on willingness to disclose

Both the sixth study and the seventh study of the thesis tested the impact of verbal persuasion from significant others on the motivation to disclose. On the basis of the literature that suggests the role of expert feedback as an important source of self-efficacy beliefs (Bandura, 1986; Schunk, 1984; Schunk and Cox, 1986) these studies aimed to investigate whether willingness to disclose could be enhanced by means of positive feedback about previous self-disclosure performance. Self-efficacy theory indicates that feedback from significant others plays an important role for the development of perceived control beliefs when people don't have enough knowledge or experience in order to judge their own abilities (*ibid.*). Thus, these studies adopted a mock application form in which students had to disclose personal information with the aim to succeed in a hypothetical job interview. In study 3.7, eighteen participants were recruited at a Personal and Professional Development course organised by the

graduate school of University College London. Results revealed a marginally significant main effect of feedback sign on subsequent willingness to disclose to a stranger and thus suggested that the hypothesis might be confirmed. Furthermore, given its small sample size the study was treated as a pilot for the study conducted next.

In order to improve the experimental design of study 3.7 a second study was conducted with a bigger sample in an educational context. Previous research has showed that verbal persuasion is particularly effective in the context of a student-teacher relationship (Schunk and Cox, 1986). It was assumed that this context would improve the credibility of the expert and make the manipulation more effective. In study 4.7 forty-three students of psychology at London School of Economics were subjected to experimental manipulations during class hours. In addition to test the impact of expert feedback on the motivation to disclose to a stranger, study 4.7 also tested the effect of persuasion on the willingness to disclose to a company in the context of market research. Results revealed a significant main effect of feedback on willingness to disclose to a stranger whereas the relation between feedback type and willingness to disclose to a company was marginally significant. These findings provided some empirical evidence in support to the hypothesis that perceived self-disclosure efficacy can be enhanced by means of persuasion from significant others. However, the only marginally significant effect of feedback on willingness to disclose to a company underlines the limited cross-context generality of self-efficacy beliefs and indicates that further research, more context-specific, is required in order to evaluate the possibility to apply persuasion strategies to commercial contexts.

8.3 Integration of findings from Part 1 and Part 2 of the thesis

The studies presented in part 1 of the thesis suggest that environmental risk awareness has an influence on consumers' willingness to trust and on their need for control over the exchanges with companies. Study 4.1 indicated an emerging scepticism among consumers, who appear to be less willing to disclose personal information as they are aware of the risk that data might be subsequently passed to third parties. Indeed, experimental results showed that risk awareness decreased consumers' willingness to disclose by reducing trust in well-reputed companies. Thus, results from part 1 of the thesis suggest that consumers' demand for control might be the expression of a pragmatic response to the lack of trust in e-commerce exchanges. The studies presented in part 2 of the thesis have attempted to extend the theoretical conceptualisation of self-disclosure by examining the impact of perceived control beliefs on the regulation of personal boundaries. Results have provided support for a social cognitive theory of self-disclosure, where self-efficacy beliefs in the regulation of personal boundaries explain self-disclosure behaviours in an interpersonal context. Results from part two also suggested that self-efficacy beliefs in the regulation of personal boundaries can be enhanced by means of expert feedback. By manipulating perceived control beliefs it was possible to increase both the motivation to disclose to a stranger and the motivation to disclose to a market research company. The positive correlation between willingness to disclose to a stranger and willingness to disclose to a company suggested the possible cross-context generality of the self-disclosure construct. On this basis, findings

from part 2 of the thesis might also potentially apply to an e-commerce context. As results from study 4.1 of part 1 of the thesis have suggested, consumers' perceived control beliefs may be associated with higher willingness to disclose. Self-efficacy beliefs in the regulation of personal boundaries might also have an impact on the willingness to disclose in an e-commerce context. However, as remarked by Bandura, self-efficacy beliefs are always context specific. Thus, further research is required to elaborate measures of self-efficacy beliefs in self-disclosure when this behaviour has to be performed in an e-commerce context. Furthermore, the effect of risk awareness on consumers' attitudes and behaviours, as described in part 1 of the thesis, leads to the hypothesis that a number of social changes affecting modern consumers might increase the role of perceived control over personal boundaries. This thesis is conceptually elaborated in the following sections which aims to indicate a future research agenda for the social psychology of consumer behaviour.

8.4 Toward a social cognitive account of consumers' need for control in the negotiation of privacy

8.4.1. The relation between consumer empowerment, environmental risk and need for control

Marketing scholars have recognised the need to address consumers' privacy concerns as a fundamental condition for the further development of e-commerce. Some authors

have signalled that this growing attention to consumers' needs reflects a shift in the balance of power in the electronic marketplace. According to Kotler and colleagues (2002) the new information environment is transforming the traditional asymmetry between sellers and customers. The very nature of electronic media means that commercial and marketing strategies cannot be successful unless consumers make the active effort to engage in interactive communication. In addition, the Internet gives consumers access to a large amount of information from different sources, making it easy to compare products and prices of different providers in order to choose the best offer. Traditionally, consumers had little control of market information and decision-making mainly relied on inferences based on brand and reputation. With the Internet, consumers are provided with more information and with considerably expanded choice of products and services. Information and choice empower consumers. The easy access to information about prices and products characteristics allows consumers to be more rational in their decisions and selective in their preferences. Indeed, it has been noted that a major problem is now overcapacity (see Kotler *et. al*, 2002). There are too many products and services competing for only few customers, who are more aware, more demanding and less faithful. This shift in power balance in favour of consumers explains the development of marketing strategies focusing on the individual, on his or her needs, with the aim to obtain customer satisfaction and in order to retain existing customers.

Since the cost of acquiring new consumers is increasingly high, companies pursue customer retention by implementing strategies for the development of long term, satisfying trust relationships. However, paradoxically, marketers attempt to

achieve loyalty by improving consumer targeting, which requires collecting private information in a way that may cause dissatisfaction and distrust among consumers. As it has been discussed in this thesis, consumers are increasingly concerned about information collection over the Internet. Solving privacy concerns and stimulating consumers' self-disclosure are, thus, other important priorities for companies that aim to gain competitive advantages. But, again paradoxically, the solution of privacy concerns appears to be dependent on the potential to develop trust. Companies face the challenge of establishing relationships with consumers who might have no interest in their offers, who are increasingly concerned about their own privacy and also have feelings of mistrust toward the Internet environment (see chapter 4, study 1).

As discussed in Chapters 3 and 4, the marketing and public policy literatures also note that consumers react to perceived risk by demanding more control over personal information. Authors have interpreted this claim for control as a condition that companies need to meet in order to be perceived as trustworthy and be able to collect consumers' data without raising privacy concerns (Culnan and Armstrong, 1999). This thesis argues that the potential influence of environmental risk awareness on risk perception within a relational dimension has been overlooked in previous literature. The general tendency is that of focusing on communication strategies to build an image of trustworthiness in order to address consumers concerns, collect private information and obtain competitive advantages. Challenging this approach, the results presented here emphasise that the risk introduced by new technologies has an important influence on consumers' attitudes toward organisations and on their willingness to trust. This thesis puts forward the view that risk awareness influences

self-reflective processes, decreasing motivation to disclose and raising the need to exercise control over the outputs of exchanges with companies. To cope with the risk of possible negative outcomes, that are a cause of anxiety, consumers feel the need to exercise control over their personal boundaries. When individuals have low control beliefs, control is sought by adopting risk avoidance behaviours. Privacy is therefore maintained in the attempt to avoid risks, whereas personal beliefs of being able to exercise control allow people to take the risk of disclosing personal information (chapter 7). The demand for control over personal information on the part of consumers is indeed an expression of the perceived risk that is associated with generalised mistrust toward the medium. The exercise of control, reducing risk perception, can partly compensate for the lack of trust and lead people to be more willing to be involved in the exchange of information with companies (chapter 4).

Although previous literature has focused on the relation between consumers and companies, the perception of risk that affect individuals in modern societies have implications for the way consumers perceive themselves and their relationships with companies. Social changes correspond to changes in the external stimuli people are exposed to, that is, changes in the social cognitive influences that govern human adaptation and behaviour. This thesis argues that consumer behaviour, here in the specific domain of privacy concerns and self-disclosure, must be interpreted as partially influenced by the restructuring forces that are changing society. Through self-reflective processes, the individual learns from interpreting the environment and his or her own behaviour. Changes in society are likely to become changes also on the psychological level of the individual.

Consumers are empowered by the diffusion of information but also more concerned about abstract risks. By demanding control over the use of personal information consumers display their new need for protection with an empowered, pragmatic attitude. Thus, empowerment is at once a result and a need created by technological innovation. Consumers claim their right to exercise more control in order to avoid the risks that are implicit in an asymmetric balance of power. Their claim for control expresses their lack of trust and their unwillingness to trust when trust is conceived as blind faith, which, as such, would involve accepting the risk of being betrayed (chapter 4).

Furthermore, changes in society that have an impact on the individual level show a recursive effect on the macro dimensions. Demanding active control and avoiding being subjected to the control that organisations have traditionally exercised within institutional trust relationships has the effect of shifting the power balance in the marketplace. The phenomenon of consumers' empowerment is exemplified in the growing number of consumer associations[2] and non-governmental organisations (NGO) that exercise a considerable power of influence on global corporate behaviour. Activist networks are threatening the reputation of many companies, driving the issue of corporate responsibility to the extent that multinationals often appear to engage in partnerships with human rights groups to avoid negative publicity. The emergence of the theme of corporate responsibility has been accused to be primarily a public

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[2] Consumers International (CI) supports, links and represents over 250 consumer groups and agencies in 115 countries all over the world. In October 2003, the 17th world Congress had the theme "The future of consumer protection: representation, regulation and empowerment in a world economy" Participants to the conference were 600 delegates from 110 countries worldwide.

relation issue that companies have to handle for protecting their image (see Klein, 1999).

Consumers' awareness of risk, and consumers' reactions to risk, are also linked to the demand for labelling of products or the expansion of organic food consumption in the attempt to control risks for personal health. Consumers reactions to the diffusion of information about the risks introduced by scientific advancements affect production by stimulating the development of new markets. The organic food market, for example, is a market that reflects the commercialisation of risks. Risks created by technological innovation produce new needs for protection, which in turn can be addressed by further technological developments and become the stimulus for new markets. Over the Internet, movements of privacy activists[3] are influencing public policy and technology by driving the implementation of privacy protection measures, such as the adoption of fair information practices, and new security systems. Beck (1990) and Giddens (1991) describe this phenomenon as the reflexive process through which technology is employed to protect people from risks created by technology (e.g. Beck, 1990).

Reflexivity is central for the explanation of the emerging awareness and its effects in modern societies. Giddens (1990) remarks that the information society is a risk society because individuals have access to information about risks. Information about technologically produced hazards increases individuals' awareness of their potential vulnerability. As a result, both real and perceived risks lead people to become sceptical toward the systems that originate risks. Risk awareness is then

associated with empowerment because individuals can adopt strategies to avoid risks and react by claiming more control over risks. Concurrently, risk awareness generates a need for empowerment, which is expressed through the demand for control and active participation in exchanges with organisations that can be sources of risks. Without the opportunity to exercise some sort of control, in conditions of risk awareness, individuals have only two options: the avoidance of risk, which may involve withdraw and isolation, or trust. In Gidden's view, people overcome the uncertainty that characterizes modern societies and the paralysing contemplation of risk with a generalised trust in the other. In contrast, this thesis has presented empirical findings to indicate that awareness of risk negatively affects relational trust. Specifically, the present results have shown that awareness of risks of data mining over the Internet reduces the perceived trustworthiness of well-reputed companies (studies 1.4 and 2.5). Results indicate that risk awareness leads consumers to a pragmatic interpretation of reputation. Reputation, which is usually a sign of trustworthiness, is perceived as a reason why a company will act more responsibly with the only aim to avoid negative publicity.

Giddens (1991) claims that a generalised trust in the other is the primary condition for the explanation of the willingness to get involved in relationships with abstract systems that are inherently characterized by risk. This ignores the option that exchanges in modern societies might be regulated on the basis of reduced trust. The results of this thesis indicate that individuals might deliberately engage in risky exchanges with a pragmatic attitude that aims at the exercise of control to bypass the

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[3] E.g. Privaterra (www.privaterra.org)

lack of trust and in order to pursue personal benefits. In the following section the concept of trust in modern societies is discussed and implications for consumers' willingness to trust with regard to privacy issues are evaluated on the basis of the present results.

8.4.2 Awareness of risk in modern societies: toward the end of trust?

Issues of trust have become the focus of renewed attention in the social sciences. This academic interest is particularly evident when the research focus is on the key issues raised by computer-mediated-communication and commerce. Trust is widely recognised to be a problem in social relations that develop through electronic media (chapters 3). The exposure of electronic transactions to fraud, errors and information abstraction for marketing purposes explain the feeling of mistrust that pervades e-commerce exchanges (chapter 4). Trust has then become a key issue for organisations that operate over the Internet. However, although problems for trust are generally recognised and issues of perceived risk and uncertainty are addressed by focusing on strategies to develop trust, at the same time distrust is not evaluated as a possible stable orientation of consumers. In Giddens' view, abstraction and risk make trust particularly critical for the development of social relations. Distrust is not contemplated as the most likely consequence of risk perception, rather, awareness of risk is seen as a potential cause of social paralysis that is avoided thanks to a generalised, ontologically founded, trust in the other. This sense of ontological security gives confidence to the individual. Giddens suggests that it provides the individual with a "protective cocoon" to keep the

thoughts of risk at a distance and develop a sense of personal autonomy. Conversely, distrust in the others lead to a condition of suspicion and anxiety that negatively affects action and social relations.

According to both Giddens (1994) and Luhmann (1979), distrust causes isolation, passivism and social withdrawn. Trust is then conceptualised as a basic fact of social life, as necessary for dealing with complexity, which otherwise could be an obstacle for the maintenance of routines and habits. Everyday life is embedded in routine actions that rely completely on trust in the social system, in organisations and, generally, in the others. In a hypothetical society without trust, individuals should constantly question everything, from the predictability of sanctions to the potential outcomes of any social exchange. Indeed, many social theorists have regarded trust as a prerequisite for social order and cooperation (e.g. Durkeim, 1895; Elster, 1989; Gambetta, 1988).

If trust is the basis of society, distrust might appear to be highly dysfunctional. For instance, Fukuyama (1995) argues that high trust cultures such as Japan, Germany and the United States are conducive to economical advantage with respect to low trust cultures such as Italy and China. Italy, in particular, is often used as an illustrative case of low trust society, where mistrust towards public institutions led to the development of an alternative, though illegal, organisation known as Mafia. However, as pointed by Gambetta (1993) the Mafia system itself strongly relies on trust, which can be found in the associations of families. Yet, the cooperation that can be observed within Mafia families often results from a mechanism of negotiation where intimidation and fear play a fundamental role. Mafia bosses exercise power over their

fellows by offering them protection and the possibility of financial revenues who are expected to reciprocate these favours by serving the organisation as they expect that their acquiescence with the powerful boss will be beneficial. The kind of trust that rules these relations is very different from tacit and spontaneous trust in the institutions. In the Mafia organization trust is not unconditioned. Rather, commitment to the organisation results from the evaluation of possible benefits and envisaged risks.

This example suggests that there exist different forms of trust. Mitsztal (1996) points out that although they are often used as the same concept, there is an important difference between trust and faith. Faith refers to situations in which an individual does not consider the option of untrustworthiness. Faith is then a kind of unconditioned trust, which does not contemplate the possibility of negative outcomes. As discussed in chapter four of the thesis, Rempel and colleagues (1985) have conceptualised a hierarchy of layers of trust. The minimum criterion is the predictability of the others' behaviour, which is then followed by a state of dependability when an individual relies on the other to the extent to become dependent on his or her will. At the highest level trust is conceptualised as faith. Faith corresponds to the condition in which no control is exercised or sought and when untrustworthiness is not considered to be an option. Mitszal (1996) suggests that trust differs from faith because it involves a rational decision making process oriented to minimize the probability of disappointment and that, as such, involves an evaluation of trustworthiness. The conceptualisation of trust, as opposed to faith, that results from a rational evaluation of the probabilities of positive or negative outcomes

implies that trust in the other is a dynamic phenomenon. A similar interpretation seems to be implicit in the idea of active trust advanced by Giddens (1994). In describing the effects of reflexivity on the dynamics of modern society, Giddens recognises that active trust, that is, the trust that needs to be constantly treated and sustained, is becoming increasingly significant. Giddens than suggests that organisations should stimulate individual's active trust through their representative points of contact. It is at the relational level that Giddens believes it is possible to address the problem of the perception of risk caused by the increased abstraction and supported by reflexive processes of thinking. Although the described need to stimulate active trust clearly implies that risk perception is a cause of mistrust, the effects of mistrust are not identified as an important issue. Giddens recognises the relation between perceived risk and anxiety in modern society, but still he argues that a generalised trust in the other is the most likely response that people will adopt to cope with uncertainty.

The results of this thesis contradict the idea that individuals in modern societies react to perceived risk with a generalised trust in the other. Rather than showing blind trust, or faith, toward the organisations that can be sources of risk, they manifest distrust and evaluate probabilities of positive versus negative outcomes. Studies 1.4 and 2.5 show that awareness of risks lead consumers to doubt about the trustworthiness of organisations that operate over the Internet. In particular, study 2.5, demonstrates that awareness of environmental risk has a significant negative effect on the perceived trustworthiness of the company collecting information. Awareness of risk decreases consumers' willingness to disclose through its negative effect on the

perceived trustworthiness of the company. On the basis of these results it can be drawn that in their exchanges with companies consumers are affected by the envisaged probability of a negative outcome. In these circumstances, trust or distrust result from a process that is similar to decision making under uncertainty. Information about environmental risk can motivate distrust on a relational level and lead to risk avoidance behaviours, such as withdrawn and non-cooperation.

It is important to note that in defining trust as a foundation of social order and as necessary for the individual in order to deal with everyday uncertainty, Giddens and other authors refer to a kind of basic trust that is not incompatible with feelings of mistrust on a relational level. The present thesis does not argue against the construct of ontological security and against its role for the individual confidence in dealing with the world, rather it emphasises that mistrust is a possible, not necessarily dysfunctional, option that is part of the contemporary relationship between individuals and institutions. One of the main characteristics of modern societies is the mass diffusion of information about risk. This thesis argues that information about risks affects the knowledge base available to consumers for the prediction of trustworthiness. In this sense, awareness of environmental risks is responsible for an emerging attitude oriented to the pragmatic evaluation of costs and benefits in the exchanges with companies. This attitude can be explained as the expression of a new phenomenon, that is, the raising of a generalised distrust toward abstract systems that is reflected on a relational level.

The emerging awareness of risks can insinuate doubts of trustworthiness with respect to situations that had not been questioned before. The basic trust that allows

the individual to engage in routine actions without having to worry about possible risks might break down in the light of new information. Perceived risk can undermine the unconditioned trust on the basis of which everyday routines are carried out. In these circumstances, there is the need to adjust routines in a way to overcome the otherwise paralysing contemplation of risk. Indeed, arguing that routines are unchangeable would be equal to denying human adaptation and social change. Individual's confidence, which derives from the sense of ontological security developed in the early ages of childhood, still plays an important role. It allows the individual to act under uncertainty and to cope with the difficulty of accessing and processing all the relevant information that would be necessary for a rational decision-making. Yet, information about risk stimulates the need to develop new socially-mediated routines to cope with the risk introduced by a new situation and sustain action. For instance, information about the risks of credit cards fraud over the Internet could have a paralysing effect on the individuals' willingness to shop on-line. Routine actions such as buying a flight ticket could not be maintained unless some solution is adopted to avoid a paralysing contemplation of risk. In this case, the option to choose a secure payment procedure is introduced in the buying routine. It becomes a new habit. Even if consumers don't really know to what extent this procedure is safer, it has the positive effect of preventing from anxiety and sustaining action.

Given this explanation of the way ontological security serves the aim of maintaining everyday routines and coping with potential risk anxiety, it might appear that, in spite of an increased awareness of risks, individuals might still respond with a generalised trust in the other. Nevertheless, risk awareness has the effect of

challenging the condition of unconsciousness that characterises unconditioned, tacit trust. An important social change in modern societies is the pace with which new routines must be constantly developed. The fact that people are constantly subjected to new information about risks makes them question the possible negative outcomes of situations and exchanges that they have never doubted before. This is the condition that differentiates faith and trust, when trust is conceptualised as resulting from a decision making process. It appears that the changes introduced by information technologies lead people to have to think about issues of trustworthiness and risk more then ever before. Awareness of risk can therefore transform relations that were previously based on faith in relations based on various degrees of perceived trustworthiness or untrustworthiness.

Indeed, a condition of distrust or reduced trust does not necessarily cause withdrawn from the relation. In game theory cooperation can emerge even without trust or when there is very little trust in the other (Akerlof, 1970). For example in study 1.4, perceived untrustworthiness was linked to reactions aimed at obtaining more control to increase the predictability of the relation and reduce risk exposure. The exercise of control over personal information was perceived as a condition that could substitute for the lack of trust and make exchange possible. Whether this situation is a case of mistrust or reduced trust is not important. The main idea is that the kind of trust (or mistrust) that follows an evaluation of trustworthiness is totally different from blind trust (or faith). Lagerspetz (1996) has argued that in everyday life individuals do not trust consciously. It is this lack of awareness that would characterise the real trust. Trustworthiness becomes a possible option in the conscious

dimension only when there are reasons for suspicion. On these grounds this thesis
maintains that risk awareness in modern societies drives toward the end of trust. The
consumers' scepticism that results from risk awareness is responsible for the end of
blind trust (which is also defined as basic, tacit, unconditioned trust or faith) in
organisations. It is argued that in place of this kind of trust, there will be room for
relations where cooperation derives from a more equal distribution of control.

8.4.3   The end of innocence: the adult life of consumers

The phenomenon of information diffusion across space and time, initiated with mass
media and further expanded with the Internet is responsible for significant social
psychological changes. As first pointed out by Meyrowits (1996), electronic media
have restructured the traditional relation between space and knowledge. The
information people can access is no more determined by being in a certain place.
Before the diffusion of mass media, people had limited access to information about
other cultures and ways of life. Experience and knowledge were strongly defined by
geographical, socio-economic and demographic factors. Today, the same information
reaches everyone, everywhere. One of the main consequences of the diffusion of
information is the alteration of the typical boundaries between private and public
spaces. For instance, children have now easy access to information about adults' life
that before was not disclosed to them until a certain age. The mass diffusion of
information, previously maintained within certain groups, has led to the blurring of
gender, age and even hierarchy-based distinctions. Meyrowits (*ibid.*) signals that

many integration movements of the 60s and social phenomena, such as sexual emancipation and feminism, are the result of an increased awareness across social groups.

The diffusion of information across physical and social boundaries has the effect of revealing the backstage of many situations and social roles. Following Goffman (1959), the separation between private and public spaces is functional for the maintenance of social distance and for the exercise of power. Many power asymmetries were maintained thanks to the non-democratic diffusion of information. Today, the information boundaries that supported asymmetries of knowledge, awareness, control and power have become less rigid. In a consumer context, identities and motives of the points of contact of abstract systems have been revealed. Consumers are aware of the financial aims of firms. They are constantly exposed to information about markets and marketing strategies. This kind of information has supported consumers' reflexive modes of thinking about their own identity and behaviour. Today, consumers know to be consumers. They are aware that companies need to collect information about them in order to gain competitive advantages. They often know that their private information has a value, that information has become a commodity (study 1.4). Consumers are also aware that companies attempt to seduce them by using brands and advertising (Olivero, 2000).

Indeed, one main effect of the diffusion of information is consumers disenchantment. Information about risk has led consumers to become suspicious and more pragmatic in their relations with companies. They are less likely to relate to organisations with faith, rather they evaluate trustworthiness and, eventually, ask for

more control in order to achieve a satisfactory degree of predictability and make cooperation possible. In this way, they escape from the control that organisations have traditionally exercised by means of institutional trust relationships. Although trust and control have been conceptualised as opposing alternatives, Knights and colleagues (2001) suggest that trust and control should be regarded as interdependent concepts. They indicate that even when relationships appear to be based on trust rather then control, they often imply or afford mechanisms of control. For instance, employees trust the employer as they expect to be paid for the work done. Because of this trust relationship, the employer can exercise control through power over the employees. Similarly, financial institutions have traditionally exercised a considerable degree of control over their customers (_ibid._). Asymmetries of knowledge and resources supported the perpetuation of power asymmetries that relied on unconditioned trust. Today, the raise of risk awareness makes consumers question the trustworthiness of organisations and claim a more equal distribution of power-control.

Consumers can exercise control by avoiding getting involved in unsatisfactory exchanges, by withdrawing when conditions don't meet theirs expectations or, more actively, by making their voices heard. The active demand for control plays an important role for the affirmation of consumers' self-identity. By demanding control consumers can claim for their social identity to be recognised in the marketplace. Reflexive processes of thinking have made consumers aware of the centrality of their role in society. As consumers are now aware that organisations rely on consumers' demand, they also realise that they can have negotiation power in their exchanges with companies. For instance, the awareness that private information has a

commercial value leads consumers to ask for rewards against disclosure. In this way, consumers can relate to organisations as partners in commercial exchanges and, thus, attempt to escape from the external control that was previously endured in the name of faith.

The crisis of faith is an important emerging phenomenon in modern societies. Individuals are loosing faith even with regard to religion. An increasing number of people are adopting a rational, enquiring attitude toward religious dogmas. Individuals in modern societies have become sceptical and suspicious. In philosophy, Nietzsche was the first to notice the emerging of a sceptical attitude toward the order imposed by moral values. Nietzsche's famous statement "God is dead" is a way of saying that human beings are ceasing to believe in the order constructed by moral values. People would stop believing in some superior order and start dealing with everyday uncertainty without the protection of a supernatural ideal. The loss of influence of morality has the effect of empowering the individual who, for the first time, can freely decide about what to value and how to live. However, the lack of moral standards on which to base one's behaviour is a potential cause of anxiety. Without the protective belief in a superior order, individuals become personally responsible for their own happiness. The multitude of options to choose from can have a paralysing effect in everyday life. Possible failures in dealing with the world may produce a frustrating sense of personal inadequacy and lead to withdraw and passiveness. In this respect, the modern individual who has lost the comfortable security of faith but still intend to deal with an increasing tasking environment will be extremely concerned with the ability to exercise personal control over his own life.

What Nietzsche described as a new stage in human evolution is similar to the passage from childhood to adulthood in the human life cycle. Children are completely dependent on their parents. This relation of dependence is supported by faith in the parents' responsiveness. Parents are idealised and assumed as ideal models (Freud, 1914a 1914b; Winnicott, 1960). Children believe in the fairness and superiority of their parents who then provide a model of values and behavioural standards to which to conform to. Although the parental model is necessary as an initial guide, later in life the child must become autonomous from the model in order to develop an authentic sense of personal identity (*ibid.*). This passage from the faith in the ideal model towards a more autonomous sense of self involves, and requires, the emergence of a disenchanted attitude toward the model. The adolescent rebels against the parents after realising their human limitations. This raise of awareness inevitably involves a sense of delusion accompanied with the perception of having being betrayed (Freud, 1936). The disenchantment of the consumer can be metaphorically equated to the entering into the adulthood phase of life. As adolescents, deluded by the parental model, demand autonomy from the control of their parents, also consumers rebel against asymmetries of control since their faith in organisations has been betrayed. Consumers' childhood, which can be identified with the epochal phenomenon of consumerism, might be close to an end.

Consumerism reminds of a state of unconsciousness in which consumers are easily seduced by advertising messages. Their faith in the source leads them to believe in the superiority of the ideal selves projected by brands and to pursue conformity to these models through consumption. In contrast, consumers' awareness appears to

engender a trend toward the assertion of an autonomous, more powerful, consumer identity. This is not to say, however, that consumers will not use symbolic material possessions for the expression of self-identity. Social psychology demonstrates that people consume goods as a mean to construct and communicate self-identity (Dittmar, 1992; Lunt and Livingstone, 1992). The idea of consumers who attempt escaping from the seductive power of ideals selves constructed by brand communication is not in contradiction with the use of material goods as symbolic means for self-expression (see Dittmar, 1989; 1992; Dittmar *et. al.* 1995). Rather, the increased self-awareness of the consumer in a consumer role is likely to be associated with a reflexive interpretation of consumption choices as acts of communication and self-presentation. Self-reflective thoughts about materialism and self-identity might lead consumer to a more critical, even if illusory, evaluation of mass consumption. Consumers might then aim to recuperate a sense of individuality and to express uniqueness through symbolic possession. This search for distinctiveness, which has been well documented by marketing in terms of need for personalisation of products, is oriented to the affirmation of a more authentic personal identity (Weil, 1998). If consumerism threatens the stability of self-identity, by claiming for more control in their relations with companies consumers demonstrate the intention to regain consciousness, or, in other words, to achieve more power in the marketplace. The demand for control, as previously discussed, indeed reflects the need to become autonomous from external influences and develop a stronger identity with a higher social impact.

However, if 'growing up' gives the opportunity to become autonomous at the same time the end of faith in the institutions causes anxiety. Consumers pay the price

of a potential empowerment with a loss of certainties and with an increased sense of responsibility for their own attainments. The empowerment made possible by the diffusion of information thus increases the need for the individual to exercise control over behavioural outcomes. The significance of self-efficacy beliefs in this changing social environment and their role for the explanation of consumers' self-disclosure behaviours is discussed below.

8.3.4 The increased importance of consumer self-efficacy beliefs as a consequence of risk awareness

The study of privacy and self-disclosure in e-commerce exchanges raises a number of important issues for the understanding of consumer behaviour in modern societies. The theme of information collection is particularly meaningful because it has direct implications for the way consumers perceive themselves and their relations with organisations. The regulation of personal boundaries is fundamental for the development of a sense of identity as separated from the world and for the exercise of power/control. Information technologies challenge individual's control over personal boundaries, raising the problem of privacy as an important issue for the individual in society.

For consumers that in modern societies are becoming aware of their social role, the collection of private information has two main implications. First, it is a menace for freedom, that is, a menace for consumers' empowerment. Previous literature has suggested that consumer culture identifies freedom with private choice and private

life. According to Slater (1997) the relation between freedom and privacy is crucial to the idea of the modern individual. The rationality with which the modern individual can escape from the influence of religion and social authorities is a private resource. By threatening privacy, activities of information collection challenge the new consumer's identity, which is based on principles of freedom and autonomy. Second, the diffusion of activities of information collection shows that consumers' identities have a commercial value. The fact that companies attempt to collect consumers' private information provides consumers with negotiation power. The maintenance of privacy on certain information, to the extent that information is perceived as a commodity, might be an empowering exercise of ownership. As private information becomes a currency with which consumers can regulate commercial exchanges, the ability to exercise control over personal boundaries is essential for the affirmation of their social identity and for the pursuing of relational goals.

As it has been discussed in this thesis, the maintenance of privacy is important for preserving autonomy from the external environment. Privacy becomes more significant when the environment is perceived as a source of risk, as a threat for the individual and his identity and when, as a consequence, trustworthiness becomes an issue and control a need. Therefore, as technological advancements continually introduce new risks, the importance of being able to exercise control over risks by regulating the degree of contact with external influences is a primary consequence of risk societies. Moreover, in addition to the need to preserve autonomy that results from a general risk perception, in e-commerce, the exercise of control becomes even more significant as it is also directly challenged by the risk of privacy invasions that

menace the individual's control over personal boundaries. By challenging consumers'

ability to exercise control over personal information, technology, and the

organisations that use it, threaten consumers' identity and make control beliefs salient

for the explanation of privacy concerns and self-disclosure behaviours.

Social Cognitive Theory allows us to explain consumer behaviour as resulting

from the reciprocal influences between changes in society, psychological factors and

the experience of the individual in interaction with the environment. The main

argument of this thesis is that changes in terms of environmental risk have an impact

on the psychological level as they affect consumers' perception of risk and, through

self-reflective processes, the individual's sense of efficacy in dealing with

environmental demands. Information about risks that derive from direct experience

and by modelling, through observation and information conveyed by media,

restructure individual self-perception in the environment and, as a consequence,

attitudes and behaviours toward the environment. This argument was first developed

within a qualitative exploration of consumers' perception of privacy in e-commerce

that led to emphasise the impact of risk awareness on the need for control and on the

decrease of trust in organisations. The same theoretical perspective could account for

the changes observed in the consumers' self-awareness as a consequence of reflexive

modes of thinking about the commodification of personal information and the

commercial nature of their relations with companies. The effects of the diffusion of

information about risks, as previously remarked in the sociological literature,

appeared to be responsible for changes in the consumer identity described as more

pragmatic, sceptical and oriented toward self-affirmation. This thesis has argued for

and provided experimental evidence to show that among the consequences of risk awareness there is a decrease in the consumers' willingness to trust organisations over the Internet. Qualitative data have also indicated that the active demand of control reflects a need for empowerment that is associated with the decrease of trust towards organisations. As organisations attempt to collect consumers' information, consumers need to be able to exercise control over their personal boundaries in order that it might be possible for them to control the outputs of their relations with companies. The ability to regulate contact when desired and obtain benefits from the exchanges with companies, while avoiding to be subjected to an asymmetric power relationship, is thus increasingly important for today's consumers.

Social Cognitive Theory maintains that perceived self-efficacy in dealing with environmental demands in order to attain positive results determines behaviour through its impact on the motivation to act. Studies 1.7 and 2.7 demonstrate that self-disclosure efficacy beliefs and social and interpersonal control beliefs are positively associated with self-disclosure and negatively associated with privacy concerns. These findings advance our understanding of the psychological mechanism underlying the dialectic relation between privacy and self-disclosure and also suggest possible reciprocal influences between social environment and cognition that are pertinent to a consumer context. As it has been discussed, social changes, including the loss of influence of moral standards and the increase of opportunities for self-affirmation, empower consumers but also create a need for empowerment. The exercise of control is a necessary condition for dealing with the potential anxiety deriving from the multitude of choices and opportunities in complex modern societies.

The blurring of traditional social, economical and cultural barriers means that individuals have more responsibility for what they become and do. It might be argued that the ability to exercise control over personal attainments has become more significant with regard to behaviours that are functional for the construction and the expression of social identity. This might be the case of the regulation of personal boundaries through which consumers can affirm their self-identity, by establishing beneficial relationships with organisations and managing the right degree of contact for a balanced exercise of power. Perceived efficacy beliefs in the regulation of self-disclosure emerge as a possible predictor of the consumers' willingness to disclose personal information. However, if consumers perceive themselves as unable to obtain relational benefits through self-disclosure behaviours they will be more likely to fear negative outcomes, experience concerns for privacy and respond with risk avoidance behaviours. Personal control beliefs will then have an impact on the social environment by affecting the way consumers relate to organisations and by stimulating further technological advancements or public policy interventions oriented to address issues of perceived risk and for the negotiation of conflicts.

Based on the arguments presented above, this thesis indicates that the emerging role of self-efficacy beliefs in a consumer context is an important theme for future research that aims to investigate the impact of modern social changes on consumers' behaviour.

8.5 Implications for Public Policy and Marketing: Promoting self-efficacy beliefs for the benefit of consumers

Chapter 6 indicated that the main sources of self-efficacy are mastery experience, vicarious experience and verbal persuasion. People develop self-efficacy through self-reference by observing and judging past behavioural attainments. Previous positive experiences in dealing with a difficult task, when personal factors are inferred as major contributors of behavioural attainments, increase perceived control beliefs. Furthermore, people judge their own capabilities on the basis of the performance of others. Especially when there are not standards against which to compare and judge personal capabilities or when there is lack of previous experience of the same behaviour, people form self-efficacy beliefs by observing the behavioural attainments of similar others. Research has shown that the impact of modeling as a source of self-efficacy depends on the perceived similarity with the model and that, for instance, same sex peer modeling is an important source of self-efficacy.

When there is lack of experience for judging personal experience another source of self-efficacy is verbal persuasion. When performance relies on the integration of personal skills with external factors that might be unknown or uncertain, the ability to exercise control over actions in order to attain positive results might be difficult to predict. Under these circumstances people form self-efficacy beliefs and outcome expectancies by observing others but also on the basis of the feedback they receive from significant others. Efficacy judgments from experts can have a significant influence on individuals' choices and behaviours as they affect motivation through their impact on perceived behavioural control. Study 4.7 provided some empirical evidence about the significant effect of feedback on subsequent motivation to

disclose. This finding suggests that perceived control beliefs over the regulation of personal boundaries might be enhanced by means of persuasion strategies.

The previous section of the chapter has discussed the social changes that have made consumers' self-efficacy beliefs increasingly significant. As it has been said, risks in modern societies are not only real risks but also perceived risks. Communication about risks has a negative impact on the individuals' confidence in dealing with the world. It has fostered a trend of distrust toward institutions and contributed to a state of anxiety that limits, if not paralyses, consumers' freedom to communicate and act. The mass diffusion of communication about risk, increasing risk perception, presents models of negative attainments that might further decrease the control beliefs of those who already have a low sense of personal efficacy (see Bandura, 1986). Promoting the formation of self-efficacy beliefs concerned with the behavioural domains that are crucial for the development of interpersonal and commercial exchanges might be a useful pathway to offset potential withdraws, which have been also described to be a likely consequence of mistrust (e.g. Giddens, 1994; Luhmann, 1979).

Public policy and marketing might design communication plans for supporting the formation of self-efficacy beliefs among consumers. Strategies of verbal persuasion or communication campaigns picturing positive behavioural attainments of models for vicarious learning can be oriented to increase perceived control beliefs despite the negative influence of perceived environmental risks. Although the results of this thesis might suggest strategies for the collection of consumers' information, promoting self-efficacy beliefs is also meaningful for the well being of consumers.

Consumers need to perceive themselves as able to obtain positive results in their relations with companies in order to engage in a potentially risky context of exchange such as the Internet.

Further, the need for an efficacious regulation of personal boundaries is associated with the attempt to construct an autonomous social identity and avoid asymmetries of power in the relations companies. Low self-efficacy beliefs limit engagement with new technologies and are in conflict with the affirmation of an empowered consumer identity. Increased opportunities for self-realisation in a complex environment, where moral standards have lost their reassuring power of influence, indicates the role of behavioural control as a new key issue for individuals in modern society. A consequence of the growth of opportunities is the emphasis on social performance and success. Mass media have indeed contributed to the diffusion of new ideal models of social efficacy that lead individuals to become more self-conscious of their personal attainments, more concerned about their abilities to succeed and worried about the risk of failure. The promotion of self-efficacy beliefs might help consumers to deal with a complex and increasingly demanding environment. Public policy, but also commercial organisations, should recognize the importance of providing consumers with means for overcoming anxieties and for establishing satisfying, and cooperative, commercial relationships.

8.6 Limitations and suggestions for future research

The empirical findings of this thesis demonstrate the relations between environmental

risk awareness, trust and willingness to disclose. Further, part 2 of the thesis has shown individual differences in self-disclosure behaviours that resulted to be associated with self-efficacy beliefs. The results of the thesis have been interpreted using the theoretical framework of Social Cognitive Theory, which allowed proposing an overall account of the reciprocal relations between social changes (as described in sociological theories on modern risk societies), consumer identity and behaviour. Nevertheless, any evaluation of this work should take into consideration a number of theoretical and empirical limitations.

First, the conceptualisation of self-disclosure as a goal-oriented behaviour adopted in the present thesis is not exhaustive. This conceptualisation has been proposed in the interpersonal relationship literature to emphasise the motivational factors that drive self-disclosure for the development and the management of relationships (see Petronio, 2002; Duck, 1998). However, as indicated in the pioneering work by Jourard (1971) self-disclosure can have a cathartic function, which is not necessarily oriented by interpersonal goals. This kind of self-disclosure is observable in the therapeutic setting and in the context of clinical interviews. For the purpose of the present thesis it was assumed that in an e-commerce context consumers would be unlikely to disclose personal information for catharsis. However, whether a cathartic function might be intrinsic to any act of disclosure or whether it may coexist with a goal-oriented function remain unclear and, therefore, open to future investigation.

Furthermore, for the assessment of the relation between self-efficacy beliefs and self-disclosure the conceptualisation of self-disclosure as a goal oriented behaviour is

particularly crucial. According to Bandura (1986), the significance of perceived control for the prediction of behaviour is limited to the cases in which the intention to act can be affected by the envisaged probabilities to reach a certain goal. However, recent self-efficacy research has demonstrated the role of perceived control for the prediction of behaviours related to the general affective experience, such as, empathic listening (Caprara, Gerbino, Delle Fratte, 2001) and the expression of emotions (Caprara and Gerbino, 2001), which are less explicitly linked to the construct of self-regulation for goal attainment (*ibid.*). In studies 1.7 and 2.7 the measurement of perceived self-disclosure efficacy focused on the actions that are necessary to exercise control over what information to disclose and to achieve interpersonal goals through the regulation of self-disclosure. This conceptualisation does not account for cathartic functions and other beneficial effects associated to openness that might contribute to self-disclosure but that don't appear to be directly subjected to self-regulation processes. Moreover, the domains of perceived controls that have been identified as central to the construct of perceived efficacy in self-disclosure were not exhaustive. Further research is required in order to evaluate and assess the role of additional domains of perceived behavioural control that might motivate disclosure or, conversely, explain risk avoidance and fear for privacy.

The exploratory and theory generating aim of studies 1.7 and 2.7 clearly implies that findings need to be further tested in future studies. These findings were aimed at a preliminary test of the hypothesis of the role of perceived self-efficacy on self-disclosure behaviours. Thus, the analysis focused on the assessment of relationships between measures of self-disclosure behaviours and domains of perceived

behavioural control that were suggested in the literature. For a more articulated Social Cognitive Theory of self-disclosure the pattern and the direction of mutual influences between different domains of perceived behavioural control should be mapped. What is the hierarchy of causal relations between privacy concerns, past disclosure, willingness to disclose, perceived control in the regulation of self-disclosure, social efficacy, interpersonal control, and, may be, additional areas of behavioural control? Future investigation should aim at elaborating hypotheses about the network of influences among the above constructs. Similarly, studies 3.7 and 4.7 represented a first attempt to test the hypothesis of the effect of verbal persuasion from significant others on willingness to disclose. Further studies are needed to test this hypothesis in the context of consumer behaviour and evaluate the conditions that might better predict a significant effect of feedback on subsequent disclosure.

An additional limitation of the present research pertains the use of student samples in studies 1.7 and 2.7. Although students are a common source of subjects for academic investigations, such sample restrictions reduce the generalisability of findings. Additional research employing more representative and bigger samples is required before the role of efficacy beliefs on the regulation of personal boundaries can be accepted as a possible advancement in the social psychological understanding of privacy and self-disclosure.

8.7 Conclusions

In this thesis I have attempted, first, to provide some insight into the social

psychological factors that explain the dialectic between privacy and self-disclosure in an e-commerce context and, second, to extend the theoretical conceptualisation of self-disclosure in an interpersonal context. I adopted the framework of Social Cognitive Theory to conceptualise consumer behaviour as resulting from a network of reciprocal influences between society and the individual. This theoretical approach allowed me to bridge the interpretation of sociological theories of the effects of perceived risk and the understanding of the psychological processes that explain changes in motivation and different behavioural responses. Notwithstanding the theoretical and empirical limitations, the findings presented herein suggest that: (a) consumers' willingness to disclose and privacy concerns vary as a function of risk perception of broader context and of individual differences in perceived control over the outputs of exchanges with companies, (b) environmental risk awareness influences willingness to disclose by decreasing trust, (c) social changes involving the increase of perceived risk and self-reflective processes supported by the diffusion of mass communication might affect consumers' identity and explain the emerging need for a more equal distribution of control in the relationships between consumers and organisations, (d) in an interpersonal context, control beliefs in the regulation of personal boundaries and social and interpersonal self-efficacy are associated with self-disclosure behaviours and the strength of these associations varies across sex, (e) motivation to disclose might be enhanced by means of verbal persuasion from significant others, (f) social changes might make issues of perceived control salient for the explanation of consumer behaviour. In all, these findings point out the need to expand the investigation on the processes through which self-efficacy beliefs might

affect self-disclosure and privacy concerns. In particular, future research should explore whether self-efficacy beliefs influence self-disclosure in a consumer context and whether social changes and changes in the consumers' identity increase the role of personal control beliefs. Further research may also attempt to account for the information that can be a vicarious source of self-efficacy beliefs in an e-commerce context.

In conclusion, this thesis demonstrated the importance of perceived control beliefs in the regulation of personal boundaries in an interpersonal context and explained the role of environmental risk awareness for the understanding of willingness to disclose among "modern" consumers in an e-commerce context. Although the investigation of the relation between self-efficacy beliefs and self-disclosure was not exhaustive and further research is required in order that the proposed construct might advance self-disclosure literature, it is hoped that the findings presented here provide a novel approach with which both marketing and public policy might intervene in today's privacy debate.

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269

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270

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APPENDIX

APPENDIX 1. E-MAIL INTERVIEWS: ADAPTING QUALITATIVE RESEARCH

TO COMPUTER MEDIATED COMMUNICATION

Study 1.4 adopted the e-mail as a method for the collection of qualitative data. In this appendix the implications of using the e-mail for conducting qualitative interviews are discussed and the theoretical assumptions that guided data collection in study 1.4 are related.

1. Introduction

For many social scientists the Internet has become a time and cost effective medium for the conduct of empirical research. The use of the Internet for data collection raises, however, a number of methodological and ethical issues. Although at first an issue of enquiry appeared to be whether the Internet transformed research practices, more recently there is developing consensus on the need to identify guidelines that are specific to electronic communication. Quantitative researchers have answered the call for studies on Internet methodology promptly. Several papers investigated issues of questionnaire design and distribution (e.g. Batinic, 1997; Kaplan; 1992; Kiesler and Sproull, 1986; Swoboda, *et al.*, 1997; Witmer, Colman and Katzman, 1999), compared content and response rate of e-mail surveys to mail based surveys (Kittleson, 1995; Mehta and Sivadas, 1995; Paolo *et al.*, 2000), and identified strategies to increase the response rates in electronic media (Kittleson, 1997; Schaefer and Dillman, 1998). On the other hand, ethical considerations are often a main concern for qualitative researchers. Studies adopting participant observation and discourse analysis to investigate spontaneous communication over the Internet raise awareness on the need to conform to principles of research ethics. The ease of access

to Internet users' discourses, together with the increased opportunity for the researcher to copy, store and quickly disseminate data, emphasise to a greater extent than ever before issues of privacy, informed consent and narrative appropriation (e.g. Glaser, Dixit, and Green, 2002; Sharf, 1999).

However, qualitative methods that involve interaction between the participant and the researcher introduce additional issues for the design of research guidelines. The conduct of qualitative interviews over the Internet requires taking into account dynamics of interpersonal communication and processes of meaning construction that are computer-mediated, and, therefore, dependent on the way people interact with the technology.

The existent literature on e-mail interviews assesses practical advantages and disadvantages by observing differences between face-to-face and e-mail communication. Among the advantages, authors pointed out the overcoming of time and geographical constraints (Foster, 1994), that transcriptions and related errors are easily eluded (Olivero and Lunt, 2001; Selwyn and Robson, 1998) and that interviewer effects or problems with shy participants can be avoided, whereas the main limitation appears to be the lack of non-verbal cues such as body language, physical appearance, and voice qualities (*cf.* Bampton and Cowton, 2002; Fontana and Frey, 2000; Selwyn and Robson, 1998).

If on one hand the lack of non-verbal cues reduces the interview material that is normally available for interpretation (*cf. ibid.*), on the other the sense of protection that results from physical anonymity seems to increase the willingness to disclose. In an e-mail interview study on diabetes sufferers, it was noted that rapport was easily established and that, compared to face-to-face (F-t-F) interviews, respondents were less inhibited and willing to talk about highly personal topics (Holge-Hazelton, 2002).

283

Nevertheless, previous research also pointed to the potential lack of spontaneity, which might be fostered by asynchronous communication, and generally to difficulties due to the lack of control over the participation of the interviewee (Olivero, 2001; Olivero and Lunt, 2001). In these studies it was found that for retaining the interviewee and maintaining participation the adoption of an interview style oriented to constructing a gratifying rapport was more effective than the use of financial incentives alone (*ibid.*).

With the aim to extend on these findings and identify guidelines to adopt in study 1.4, the implications of establishing interview relationships based on written, asynchronous computer-mediated communication (CMC) were evaluated. The analysis of the social psychological literature on computer-mediated-communication helped to clarify the key factors for managing technologically mediated interview relationships. In the next sections, literature on CMC is integrated with observations from previous research practice to indicate a theoretical framework for a model of interview adapted to e-mail communication. Drawing on CMC literature the proposed analysis challenges generalised assumptions on the effects of anonymity, showing the limitations of those approaches that, moving from information theory perspectives, have pointed to the advantage of avoiding the interviewer effects. Conversely it is shown that e-mail interviews make the interviewer effect unavoidable, stimulate reflexivity, and must rely on trust and equal participation more than face-to-face interviews. It is remarked, therefore, that, to address the interviewee' resistance and avoid unwanted phenomena of strategic self-presentation, ethical considerations such as those put forward by feminists researchers should become central to the e-mail interview model.

First, assumptions about the effects of anonymity in terms of its influence on

decreased sociality, anti-normative behaviour and increased self-disclosure, are discussed. Second, the analysis of the literature is combined with examples from empirical data to indicate new research guidelines.

2. Background

2.1 Decreased Sociality

The existing literature on the use of the Internet for the conduct of qualitative interviews, and of Internet-based research in general, has pointed to advantages and disadvantages by drawing on generalised, although not necessarily accurate, beliefs on the effects of electronically-mediated communication. One of these assumptions is about the advantage of avoiding the interviewer's effect (*cf.* Fontana and Frey, 2000; Nosek and Banaji, 2002; Selwin and Robson, 1998). According to this idea, the lack of non-verbal cues in conditions of technologically-supported anonymity eliminates or reduces attributional processes through which the interviewee adapts his or her disclosure as a result of perceived power inequalities in the interview relationship. Interviewees are believed to disclose more as a result of anonymity, feeling less pressured by the physical presence of the interviewer and less likely to attempt self-presentation strategies to manage impressions. Conversely, the same literature emphasises that a main limitation of the lack of non-verbal cues is that it eliminates the possibility for the researcher to monitor body language and use it as an integral part of the interview data (*cf.* Fontana and Frey, 2000; Selwin and Robson, 1998).

These arguments seem to imply that in CMC the interaction between interviewer and interviewee takes place in a socially neutral space, where interviewee's disclosure could be more truth-like because it is not influenced by status

285

asymmetries whereas reduced channels of communication affects the richness of the data. Information theory perspectives that used communication bandwidth as a criterion to quantify the efficiency of a communication medium, and adopted the same principle to evaluate its sociality, contributed significantly to diffuse this viewpoint. For instance, communication theories such as Social Presence Theory (Short, Williams and Christie, 1976) and Media Richness Theory (Daft and Lengel, 1986) evaluated CMC in terms of information processing capacity, emphasising thereby the limitations of reduced interpersonal contact in comparison to F-t-F communication. Similar assumptions underpin Social Context Cues Theory (Sproull and Kiesler, 1991), which posited that a lack of information for framing and interpreting the other affects the sensitivity between participants in computer-mediated interactions. For this theory, the condition of reduced opportunities for social categorisation has the advantage of emancipating communication from social influences, including those of status and power inequalities.

There is, however, extensive evidence that contradict the thesis of decreased sociality in CMC. Studies that emphasised the growth of on-line interpersonal relationships show that the absence of non-verbal cues has only a relative impact on the effectiveness and sociality of on-line communication (Finholt and Sproull, 1990; Parks and Floyd, 1996; Stafford *et al.* 1999; Wilkins, 1991). Analyses of processes of relationship formation over the Internet indicate that the lack of non-verbal cues can be overcome by adaptation to the textual format of the exchanges (Parks and Floyd, 1996; Wilkins, 1991). People make social attributions on the basis of metacommunicative contents expressed in the text (e.g. style of writing, choice of language, use of punctuation and emoticons) and other paralinguistic cues conveyed through the use of the technology. For instance, the time between e-mail exchanges

can be used to convey relational meanings. Walter and Tidwell (1995) found that both the time in which e-mails are sent and the answering time can deliver specific meanings according to the aim of the message. The speed of response to e-mail messages interacts with message content. For example a prompt reply to a task request will indicate a positive attitude toward the sender (*ibid.*). For the purposes of a qualitative interview, the metacommunicative contents expressed in the text and the paralinguistic use of the technology could then assume the same significance carried by body language and voice qualities in face-to-face interviews.

2.2 Anti-normative behaviour

Those who have argued for decreased sociality in CMC also pointed to a relation between anonymity, loss of identity, and anti-normative behaviours such as the use of flaming (e.g. Siegel et al. 1986; Sproull and Kiesler, 1991). This argument, however, which is based on deindividuation theories that propose behaviour as socially deregulated in conditions of anonymity (e.g. Diener, 1980; Zimbardo, 1969), overlooks the psychological mechanism originally advocated to explain the impact of anonymity on deindividuation. Diener (1980) postulated that anonymity would produce deindividuation through the mediating effect of decreased self-awareness. This conceptualisation was then further elaborated by Prantice-Dunn and Rogers (1982;1989) who indicated that only reduced private self-awareness caused by an attentional shift towards external cues (as opposed to public self-awareness caused by accountability cues) was associated with a state of internal deindividuation. Anonymity was not described as a cause of deindividuation but rather as a condition that reducing accountability could explain anti-normative behaviour. Experimental manipulations aimed at increasing private self-awareness were conducted by isolating

subjects and asking them to perform individual tasks. In this experimental condition self-focused subjects reported less deindividuation effects than the subjects exposed to a condition of external attention cues (*ibidem,*1982). The condition of external attention cues as a criterion for reducing self-awareness and causing deindividuation not only challenges the generalized assumption about the effects of anonymity but also suggests the opposite argument in which reduced social context cues and technological-induced anonymity can increase self-awareness.

Moreover, in the specific example of electronic mail, asynchronous communication can have an additional influence on individual self-awareness. The opportunity to reexamine the content of messages previously delivered and the time available to elaborate thoughts before sending a new message are both conditions for increasing self-focus (Olivero, 2001; Olivero and Lunt, 2001). This feature of e-mail communication suggests the potential for the interviewee's reflexivity, which has epistemological and, hence, methodological implications for qualitative interviews. Furthermore, the idea that technological features of electronic mail might encourage self-awareness and reflexivity raises an additional counter-argument against the supposed relation between CMC and loss of social influence. Increased self-focus might make impression management salient, resulting in communication that reflects greater social regulation.

These effects of CMC are explained by SIDE (Social Identity Deindividuation Effects) theory in terms of strategic self-expression depending on the culturally salient identities and on the relations of power with the audience (Reicher *et al.* 1995; Spears and Lea, 1994). Under this perspective dissimulation over the Internet might reflect strategic interaction goals, which take advantage of anonymity to elude the constraints of social categorisation and stereotyping or for the negotiation of power (Lea and

Spears, 1995, see Spears *et. al.* 2002). Therefore, increased self-awareness in conditions of power inequalities, such as those that are typically in play in the researcher-subject relationship, might stimulate impression formation and deceptive behaviour.

2.3 Self-Disclosure

A third generalised assumption is that anonymity over the Internet leads to increased depth and breadth of self-disclosure (e.g. McKenna and Bargh, 2000). In recent years, many practitioners have pointed to this advantage to develop Internet-based services for psychological advice, personal counselling and therapy (*cf.* Barak, 1999; Murphy and Mitchell, 1998). However, visual anonymity might not always correspond to lack of accountability to the other. Although observed phenomena of increased self-disclosure in on-line relationships suggest that the Internet provides a particularly suitable setting for the development of intimacy and for the expression of the true self (Bargh *et al.* 2002; McKenna *et al.* 2002; McKenna and Bargh, 2002), these results are found in contexts of anonymous interactions between strangers that are not defined by social roles or issues of status differentials. Conversely, CMC often takes place between individuals who, although visually anonymous, are interacting on the basis of established social norms involving the assumption of roles and the use of strategies for self-presentation in the attempt to reach specific aims. In a research interview setting, even if the sense of relative anonymity provided by CMC might encourage self-disclosure, perceived status asymmetries might represent a barrier to disclosure. In addition, as it has been discussed in the present thesis, issues of perceived risk over the Internet have an important influence on the individuals' willingness to disclose. Although the research context differs from that of e-

commerce exchanges and interview relationships cannot be equated to commercial relationships, privacy concerns might still play a role in the interview setting.

3. Implications for e-mail qualitative interviews

The above review of the potential effects of anonymity suggests that in e-mail interviews the interviewer effect could be even stronger if, in conditions of anonymity and private self-awareness, the asymmetry of a power relation between interviewer-interviewee is made salient. Conversely, the risk of self-presentation to a powerful audience may, however, be reduced with an interview style oriented to minimise asymmetries. In this respect the language adopted by the interviewer has an important impact on the perception of power differentials. As remarked by Spears et al. (2001), the text-based nature of CMC makes linguistic factors even more influential because the written language used to carry the message also represents the main channel for conveying relational affiliation and social influence. In the absence of other social cues, the language adopted strongly affects the stance of the interaction, providing indications of the situational definition of roles and influencing the contextual salience of social determinants such as power asymmetries. The interviewer's language might then attempt to reduce status inequality cues, reinforcing the sense of equal participation and underline the role of the interviewee's individual contribution to increase the salience of personal identity (as opposed to group identity salience, see Spears, Lea and Lee, 1990).

Complementary to this issue there are the potential advantages of the increased self-awareness and reflexivity on self-investigation, which is normally a main objective in qualitative in-depth interviewing. These advantages can be pursued by

means of linguistic and paralinguistic practices aimed at implementing a relational approach that aims to develop a sense of equal participation in order to stimulate trust and self-disclosure. In previous research these goals have been pursued by (1) adopting a friendly style of communication (also with the use of emoticons such as "☺"), (2) expressing thanks for the interviewee answers, (3) treating him or her as a peer, (4) answering to any questions even when unrelated to the topic of study, (5) providing personal opinions, that is, by transforming the interview in a positive and gratifying interpersonal exchange (Olivero and Lunt, 2001).

Moreover, as discussed earlier, in order that it might be possible to overcome the limits of the lack of non-verbal information and establish effective communication, the interviewer should look for meanings conveyed through the use of the technology. For instance, changes in latency between the exchanges can be very expressive. Questions that are considered difficult or too sensitive can lead to a delay in answering or be avoided in the next reply. The interviewer should then maintain a high level of flexibility in order to interpret interviewee feelings and constantly re-negotiate participation (Olivero and Lunt, 2001).

4. Feminist ethic for a relational and interpretative model of e-mail interview

The above methodological guidelines emphasise the importance of the rapport between interviewer and interviewee. Feminist researchers have advocated the need to develop a potentially long relationship based on equal participation and trust with the aim of fostering genuine disclosure. Such a relational approach involves restructuring the epistemological assumptions of objectivity that present interview data as detached from the social situation in which they develop. Efforts to neutralise the interviewer

stimulus are abandoned in favour of an understanding of the processes that can explain the construction of shared meanings, while a rule of reciprocity is adopted to transform the interview in a real conversation (*cf.* Oakley, 1981; Reinharz, 1992; Smith, 1987).

This approach moves from an ethical standpoint aiming at decreasing interviewer control over the interviewee and with it the masculine, paternalistic, asymmetric balance of power implicit in the interview relation. Feminist researchers provide a model of the interview where participation results from the kind of emotional involvement that is required for relationship formation and not from the interviewer's control, legitimised by means of a research contract and, as such, limited to the research setting. It is important to note that in e-mail interviews interviewee participation is not constrained by the immediacy and co-presence of the researcher. Conversely, the interviewees are asked for high level of active involvement, while the mediated nature of the exchange provides them with the possibility to abandon the interview at any time. E-mail interviews require then a degree of active participation that must rely on motivational components rather than initial agreements on a research contract, and that can only exist within the gratifying, trusted, reciprocal exchange indicated by the feminist perspective.

Moving away from objectivistic approaches (according to which the interviewer should adhere to a rigor of neutrality, disregarding questions posed by the participant as well as issues related to the study in order to preserve the objectivity of the data, *cf.* Fontana and Frey, 2000), a growing number of qualitative researchers define the interview as a negotiated text, a conversation where social identities intersect and that produces situated understandings of meaningful interactions instead of neutral discoveries (*cf.* Denzin and Lincoln, 2000; Fontana and Frey, 2000).

The asynchronous text-based nature of e-mail exchanges seems to create prototypical conditions for a negotiated, as well as reflexive, construction of meanings. Following the philosophical hermeneutic of Gadamer (1986; 1989), the meaning of a text results from the mediated process of interpretation established between the text and the reader/inquirer. Remarkably, in the e-mail context, both the interviewer and the interviewee, at the same time writers and readers, enter the reflexive circle of interpretation that the ontological hermeneutic described as basic to human science enquiry. The opportunity to access previous disclosure fosters reflexive processes of self-investigation. Through the negotiation and the elaboration of emerging meanings, the interviewee becomes at once the object of inquiry and inquirer, and by so doing make himself subject to change (cf. Schwandt, 1998). Verbatim extracts from the e-mail interviews conducted in study 1.4 of the thesis show the interviewees' tendency to elaborate on the exteriorised material:

L: I have been thinking about what I said in answer 2 (...) I am not sure about it. It's something I have never really paid much attention before. I wrote that I am not concerned about this matter, but this is not exactly true. Very often I feel uncomfortable (...)

C: I would like to add something to the third answer, I admit that reading it again one week later (...) well I don't know if it makes so much sense ... it may seems contradictory but (...)

A: Why would you believe that these people are really working to improve things? Sorry, I am not convinced at all. I think there is still a long way to go before (....). I tend to be cautious more then necessary, perhaps, (...) but I would like it to be true. Don't take my previous message as such, I mean, I am not so cynical! (...) I guess it is that these things worry me a lot (...).

Processes of self-investigation often result from the elaboration of the interviewer's messages and relate to the meanings that are jointly constructed in the exchange between interviewer–interviewee. Both in study 1.4 and in previous

research (Olivero, 2001, Olivero and Lunt, 2001), it was noted that interviewees generally attempt to establish a reciprocal exchange with the interviewer. When the interviewer's approach was limited to an empathic interview style (*cf.* King, 1996), without establishing a real conversation, interviewees looked for confirmation about the adequacy of their contributions and asked directly for the interviewer's opinion. Failures to respond to this need for reciprocity resulted in the erection of barriers on the part of the interviewee or even in withdrawals. The following example relates the reaction of an interviewee after his/her question about the interviewer's view was not adequately addressed (Olivero and Lunt, 2001):

S: Is this answer the sort of thing you are looking for? What do You think about these issues?

Interviewer: Thanks very much S, your answer is absolutely fine. It is your point of view that interests me and that is important for the research.

S: I am not quite sure of the point of the question - it all seems quite simple to me and innocuous. I really don't know what more you want me to say on the subject. I feel I have already said most of this. Perhaps you could devise a specific questionnaire for me to elicit what you truly are after.

Interviewees' reactions indicate that in e-mail interviews the adoption of an interview model based on reciprocity and equal participation is particularly crucial for the development of trust. Follow up F-t-F interviews confirmed this thesis. Participants who were invited to discuss their experience of e-mail interviewing reported experiencing a lack of trust when they couldn't relate to the interviewer as an equal in a reciprocal exchange. One interviewee observes: " *the good things are that you can take your time to answer and you don't get biased but ... sometimes I didn't know if you were laughing or ...e-mail is impersonal, but then your feedback, I found, was useful, I guess I asked what did you think about my answer. At the beginning I was wondering if this would be a questionnaire or ...a more personal style... probably*

because in e-mail there is no personal interaction. I didn't expect to get to know you but it was good to see that you were actually reading my answers, I thought the interview could have been like an exchange not a survey. Sometimes, when you did not reply to my jokes, I admit having felt uncomfortable and wary, I thought you had to follow some sort of structure for your questions (...)".

5.   Conclusions

The great deal of uncertainty that some of the interviewees have experienced and the difficulties encountered in managing interview relationships testify that in e-mail communication the asynchronous and text nature of the exchange makes the quality of the rapport even more crucial than in face-to-face interviews.

The relevance of issues of trust and willingness to disclose is also likely to increase as research participants become aware of risks of privacy invasions over the Internet. Although these problems exist in any kind of research settings in virtual reality research participants assume more risks for the lack of control on the identity of the interviewer and the potential uses of their private information. On the other hand, they can exercise complete control on their participation, which, therefore, will be dependent on the kind of interpersonal involvement with the interviewer. The ethic and the method of on-line research are for qualitative interviews a matter of establishing rapport, giving voice to the participants, and substituting criteria of objectivity with principles of reciprocity.

In conclusion, the present analysis of CMC literature combined with examples from research practice suggests that in e-mail interviews the effects of asymmetric power relationships such as attempts of strategic self-presentation could be even

stronger than in F-t-F interviews. Reduced social context cues and anonymity were described as factors leading to an increased self-focus, which, together with text-based asynchronous communication, create the conditions for reflexive processes of self-investigation. Besides this advantage, it was noted how increased self-awareness can result in strategic self-presentation when power asymmetries are made salient.

The model of e-mail interview proposed aims at avoiding deceptive behaviour and self-presentation by minimising power asymmetries in the interview relationship. Following feminists' ethical concerns, it was suggested the establishing of a trustful and reciprocal exchange to foster equal participation and genuine disclosure. Concurrently this model responds to the need to stimulate the interviewee's active participation, providing, on this purpose, relational gratification in the place of the interviewer control, which is traditionally exercised by means of a research contract. Finally, since the asynchrony of e-mail messages predispose prototypical conditions for a negotiated construction of meanings, it should be noted that e-mail interviewing, above all, challenges old objectivist epistemologies making salient the occurrence of reflexivity and showing the unavoidability of the interviewer's effect.

APPENDIX 2 Study 1.7. Past disclosure and willingness to disclose questionnaire adapted from Jourard (1971)

Instructions:

The following are a list of 21 questions asking for personal information about yourself. For each question you are requested to indicate how much you have told someone in the past and how much you would be willing to disclose to a stranger that you have just met if this could provide you with some benefits. For column 1 (somebody in the past) select NEVER (N) if you have never talked about that item before, PARTIALLY (P) if you have talked just in general terms about that item, but not in full detail, FULLY (F) if you have talked fully to another person about that item.
For column 2 (stranger) select NEVER (N), PARTIALLY (P) or FULLY (F) to state your willingness to disclose to a stranger about that item.

	1 Talked about this item to somebody in the past			2 Willing to disclose to a stranger		
1. What are your views on the way a husband and wife should live their marriage?	N	P	F	N	P	F
2. What are your usual ways of dealing with depression, anxiety and anger?	N	P	F	N	P	F
3. What are the actions you have most regretted doing in your life and why?	N	P	F	N	P	F
4. What are your personal religious views and the nature of your religious participation if any?	N	P	F	N	P	F
5. What are the ways in which you feel you are most maladjusted or immature?	N	P	F	N	P	F
6. What are your guiltiest secrets?	N	P	F	N	P	F
7. What are your personal views on politics?	N	P	F	N	P	F
8. What are the habits and reactions of yours which bother you at present?	N	P	F	N	P	F
9. What are the sources of strain and dissatisfaction in your relationship with the opposite sex?	N	P	F	N	P	F
10. What are your favourite forms of erotic play and sexual lovemaking?	N	P	F	N	P	F
11. What are your hobbies, how do you best like to spend your spare time?	N	P	F	N	P	F
12. What were the occasions in your life in which you were happiest?	N	P	F	N	P	F
13. What are the aspects of your daily work that satisfy and bother you?	N	P	F	N	P	F
14. What characteristics of yourself give you cause for pride and satisfaction?	N	P	F	N	P	F
15. Who are the persons in your life whom you most resent; why?	N	P	F	N	P	F
16. Who are the people with whom you have been sexually intimate. What were the circumstances of your relationship with each?	N	P	F	N	P	F
17. What are the unhappiest moments in your life; why?	N	P	F	N	P	F
18. What are your preferences and dislikes in music?	N	P	F	N	P	F
19. What are your personal goals for the next 10 years or so?	N	P	F	N	P	F
20. What are the circumstances under which you become depressed and when your feelings are hurt?	N	P	F	N	P	F
21. What are your most common fantasies and reveries?	N	P	F	N	P	F

APPENDIX 3

Study 2. Chapter 7.

Factor loadings of orthogonally rotated factors from the self-disclosure efficacy scale [a]

ITEM	FACTOR 1 Strategic Control	FACTOR 2 Information Control
I can gain a lot from the exchange of private information with others	**0.801**	-0.046
By being open I can easily become close with the people that interest me	**0.741**	0.078
By revealing personal information I can get people to like more	**0.716**	0.056
I can get people to reciprocate my disclosure with other disclosure	**0.680**	0.042
I can make people trust me as a result of having disclosed something private to them	**0.627**	0.113
It is easy for me to elicit private information from others	**0.518**	0.346
If people ask me something personal I can answer without revealing too much or too little	-0.016	**0.875**
It is easy for me to disclose only the information that is appropriate to a certain situation	0.147	**0.830**
I am good at judging which information should best be kept private	0.046	**0.788**
I can control what people get to know about me	0.325	**0.683**

[a] Factor loadings greater than [0.35] are shown in boldface.

APPENDIX 4

Study 2. Chapter 7. Social Efficacy Scale adapted from Caprara (1999)

How well can you:

1. Participate in group discussion?

2. Learn sports skills?

3. Work in a group?

4. Do regular physical activities?

5. Learn the kinds of things that are needed to take part in a sport team?

6. Live up to what your peers expect of you?

7. Live up to what you expect of yourself?

8. Make friends with your female colleagues?

9. Make friends with your male colleagues?

10. Carry on conversations with others?

11. Express your opinions when other colleagues disagree with you?

12. Stand up for yourself when you feel you are being treated unfairly?

13. Deal with situations where others are annoying you or hurting your feelings?

Answer format

Not at all capable	(1)
Not very capable	(2)
Somewhat capable	(4)
Very capable	(5)

APPENDIX 5

Study 2. Chapter 7. Interpersonal Control Scale adapted from Paulhus (1983)

1. Even when I'm feeling self-confident about most things, I still seem to lack the ability to control interpersonal situations

2. I have no trouble making and keeping friends

3. I'm not good at guiding the course of a conversation with several others

4. I can usually establish a close personal relationship with someone I find sexually attractive

5. When being interviewed I can usually steer the interviewer toward the topics I want to talk about and away from those I wish to avoid

6. If I need help in carrying out a plan of mine, it's usually difficult to get others to help

7. If there's someone I want to meet I can usually arrange it

8. I often find it hard to get my point of view across to others

9. In attempting to smooth over a disagreement I usually make it worse

10. I find it easy to play an important part in most group situations

Answer format

Please state your level of agreement with the following statement by recording a number from 1 to 7 using the scale given below:

	1	2	3	4	5	6	7	
	DISAGREE							AGREE

APPENDIX 6

Study 2. Chapter 7. Behavioural measure of self-disclosure. Sample answers to the open question.

Example 1. Female aged 26.

Instructions

The question below asks you to provide some information about yourself. Remember that there are no right or wrong answers. There are no time restrictions for your answer. You are free to write as much as you like.

Please write about a difficult personal relationship you had in the past.

The difficult personal relationship I had is happened last year. I stay with a korea girl who are exchange students from KOREA. We had a wonderful beginning and helped each other very much often. At that time. I feel I am very luck because I stay at our home as comfortable as I stay in home. However, Everything is changed when I fall in love with a boy. I have no time to stay with my roommate. I try to explain to her everything that happen to me. But I failed to do that because my roommate have a strong concept that the girl cann't depend on boy very much. I am very angry when I hear that word because I start to fall in love with my boyfriend. In the following three months, we never talk with each other, even if we cook together. At the end of the term, my roommate move out our room and find a private flat to live. She send me a letter which tell me she never make a friend with me anymore. Because she think of me often, but I didn't listen to her opinion.

Example 2. Male aged 25.

Instructions

The question below asks you to provide some information about yourself. Remember that there are no right or wrong answers. There are no time restrictions for your answer. You are free to write as much as you like.

Please write about a difficult personal relationship you had in the past.

I used to share an office with a very difficult person— she used to ask me regularly for help with her computer, mainly, & rarely thanked me & was quite unpleasant. In particular, she seemed to get a lot of pleasure from pointing out my shortcomings & hearing of any difficulties experienced by others. Despite her behavior I was always pleasant and friendly to her, but she is the person in my life I have had most difficulty with. Fortunately I no longer need to deal with her.

1

302

Example 3. Female aged 23.

Instructions

The question below asks you to provide some information about yourself. Remember that there are no right or wrong answers. There are no time restrictions for your answer. You are free to write as much as you like.

Please write about a difficult personal relationship you had in the past.

My roommate at university, who was also my best friend when we began sharing a room. The difficulty came when her mother was diagnosed with cancer and she became very ill. The relationship with my roommate became strained because she seemed so fragile and unwilling to have fun, happy times. It was difficult to be myself around her.

Example 4. Male aged 30

Please write about a difficult personal relationship you had in the past.

I would like to mention about my personal relationships with my ex supervisor. Indeed! It was a difficult one. As I was doing Ph.D. under him, I could not say no to anything. I was doing anything and everything for him. Sometimes, I could not sleep properly. He always used to keep a lot of work pressure on me. I used to complete all did because of two reasons: ① I thought I am learning new things.
② I was suppose to complete my Ph.D. within time without any difficulty. The old difficult time is still fresh in my memories. But now, I realize that I have learnt a lot from him while keeping myself busy for long hours. This will pay me alot in future time.

1

304

Example 5. Female aged 32

Instructions

The question below asks you to provide some information about yourself. Remember that there are no right or wrong answers. There are no time restrictions for your answer. You are free to write as much as you like.

Please write about a difficult personal relationship you had in the past.

Well all my life I've had a good relationship as far as my family, is concerned. My relationships with my parents are the best as well as with my sisters. But my relationship with my brother is not good at all. It has not been good for a long time. My brother and I don't share any brother-sister bond. He is the only brother of 8 sisters, he's right in the middle of 9 children and I am the youngest. My relationship with my brother has been difficult too for a long time. we never really talk to each other even though we live in the same house. I personally feel that there is a lot of jealousy coming from him as he often opposes almost everything that I do. He thinks that I am a great burden to my parents, and me being the youngest I have all the attention and support from my parents and I share a very close relationships with both my mom and dad. They are like my two best friends. I think that my brother is not happy with the fact that I am more closer to my parents than he does. Sometimes I feel like I don't have a brother because as far as I can remember my brother has not done or shown me any affection loving words or support towards me. But I do admit that I am not the greatest sister to him as well. I think that all these has affected my parents as well and mom & dad would be happy if things are better between us. But now too much time has passed and its difficult to mend the broken relationships. I do hope and pray that one day me and my brother will put our differences behind us and realize how short life is and make each other happy.

As for my personal relationships I seem to meet all the wrong people because as far as Men are concerned I'm quite unlucky in meeting the right guy. Two of my relationships ended badly which made me broken hearted as I really did love these two guys. Now I am having a really hard time trusting men because I am scared that they might just leave me again. So I am still on the look out for somebody good to come along.

APPENDIX 7. Study 3.7. Example answers to the mock application form

JOB APPLICATION FORM

Please provide the following information.

1.First Name   ...

---

2. Surname   ...

---

3. Date of Birth   10/02/77   Gender: F

---

1. Why did you choose your current postgraduate course? What do you find most fulfilling and most frustrating and what would you change? How do you hope to see your career progress over the 5 years?

I chose my current course because I enjoy the challenge of setting my own problems and finding the resources that I need to solve those problems. History provides a wonderful opportunity to do this. In the subject you are encouraged to find your own openings and opportunities for doing work that will add to our knowledge of the past. The resources that are available to tell us about the past are vast and diverse, which means that finding information is not always the problem. Finding it quickly, focusing in on the information that is most relevant to your problem and trying to fit the information together in a manner that makes sense is far more important. These are the sorts of challenges that I enjoy facing. They are made more enjoyable by the subject matter, which for history of science is a mixture of understanding why scientists act as they do and why they believe what they do. Essentially, history of science enables me to gain a better understanding of myself, by gaining more knowledge about others.

The most fulfilling part of the course is having the opportunity to interact with other intelligent and like-minded individuals, who can both set me new problems and offer new ideas to help my understanding of how science progresses. The postgraduate atmosphere is thus both a challenging and exciting one, to me. The most frustrating thing that I face is having to stick to conventions of what must be read and cited. Reading every biography on a character seems a frustrating waste of my time, when I could be out finding new resources for my research.

Over the next five years, I would like to enter your company and spend the first year or two training with other new recruits. This does not necessarily entail constant courses, and indeed I would find too many of these frustrating, as a certain level of knowledge about the job and the problems that are faced actually doing it are necessary to get the most out of such courses. However, I would like to continue to be in a learning atmosphere, where I am encouraged to reflect upon what I have learnt from each new operation that is performed. After that time I would like to help new recruits, in order to improve my skills of guiding and helping others in their work, before thinking of maybe leading a team in five years time.

2. Ask two people to describe your strengths and weaknesses; a personal friend and a professional colleague. How did they describe you, what were their reasons and what are your reactions?

My personal friend described me as friendly, intelligent and thoughtful. However, they said that I occasionally became over-enthusiastic about my work, and then spent a lot of time focused on my own ideas. This put a certain amount of responsibility on others to ensure that I was giving my full consideration to their ideas about how the problem should be solved. This particular friend has known me for five years, and shares my interest in historical problems. I therefore often discuss my work and problems that I face with them. It is certainly true that I have often thought about the problems we discuss previously and therefore wish to run my ideas about how to solve them by this friend, and do not always give them the opportunity to suggest solutions first. I think that it was useful to hear their opinions of me, as it means that now I am aware that they feel there is a problem, I can take more care to ensure that I give them the chance to offer their solutions. This should benefit me as well as them, as I should become aware of other ways of tackling the problems I face.

My professional colleague described me as responsible, always ensuring that I do things if I have said that I will. For example, I once turned up at a lecture to remind my students that their tutorial times had changed, as I felt they might get confused with which week their tutorial sessions restarted. My colleague said that I was good at listening and showing that I am doing so by making eye contact with them and nodding even whilst distracted by other things occurring,as was happening when we talked. They said that I was a good problem solver and quite creative, as I often suggest solutions to problems that other people had not thought of. They also said that I was good in a team, and can be a good leader. Both of which were due to the fact that I am quite empathetic, and thus tend to be aware of what other people are doing and feeling. Thus, I encourage them if they are disheartened and try to take the time to understand what they are trying to convey. I am also very organised, which in combination with the awareness I have of what people are doing, means that I can organise a group to ensure that everything is done to solve the problems that we face. My colleague said that my greatest weakness was that I did not always make use of my skills, for example although a good and capable leader, unless it was clear that the group needed one, I would not offer myself to be such. Again, I was glad to have my colleague's opinion, which was very useful to me as it confirmed that I did have the necessary skills to perform well. Working on my weakness will be more difficult, however, as I think it is important not to go too far in putting myself forward, as I want to ensure that everyone has the chance to participate in group work fully.

3. Describe a situation, either professional or personal, where you faced a particular difficulty. What was the outcome, what did you learn from the experience and what would you do different if faced with a similar situation again?

Recently, I faced the difficulty of trying to find out the names of all the geneticists who worked at UCL during a particular period. This was made more difficult because there was no department of genetics for the period, and the staff records were not available. I do now have, what I believe to be, a complete listing of the geneticists. I gained this by initially looking through genetic journals, which listed work place. I was then informed, by a colleague, of a listing of university staff, which enabled me to gain the names of potential geneticists, and completed the listing by reading the letters of some of the known geneticists. In solving this problem I learnt that it is important to be aware of exactly what information you require and what you are gaining. I was interested in geneticists working at UCL, but not all those working at UCL in the period were employed by UCL. Initially, I had taken the two as the same thing, and thus thought that the listing of scientists employed by UCL would include all the geneticists I was interested in. This proved not to be the case, as I discovered from the journals that I studied. I also learnt that it is important to be aware of all the information that can be gained from a resource, and not be overly focused on your immediate problem. Looking through the journals, I realised that the acknowledgements were a good source of information not only of staff working at UCL but also of how the staff interacted, a problem that I would later have to solve.

If I faced a similar situation again, I would firstly try to define the problem accurately, so as not to enter into the confusion I faced with geneticists working at, as opposed to employed by, UCL. I would then try to brainstorm different resources that I could draw on to gain this information. This would enable me to explore several resources to see which would not only provide the information I was looking for, but may have other benefits as well, such as the journal articles where I could also explore the interactions of geneticists. I would then use the resources to gain the information I was looking for, and the other information they could offer, before summarising the information into a usable form.

APPENDIX 8. Studies 3.7 and 4.7. Positive feedback on the mock application form

Dear ....,

The analysis of the application form that you have completed indicates very good self-presentation skills. Contrary to other participants who have disclosed too much or too little, you showed a remarkable ability to provide a balanced picture of yourself.

The information provided about your personal and professional experiences suggests that you are open and confident. You appear to be capable to disclose about yourself without, however, going into too many details in a way that could negatively affect the success of your application.

Congratulation, you would have got the job. Well done!

Professor John Hoffman (Ph.D.)

APPENDIX 9. Studies 3.7 and 4.7. Negative feedback on the mock application form

Dear ...,

The analysis of the application form that you have completed indicates that you need to improve your self-presentation skills. Contrary to other participants, who have disclosed just the right information, sometimes you have disclosed too much and sometimes too little.

Certain information, especially the most private one, should not be revealed in the context of a job application. The recruiter should not be acknowledged with information that is not relevant, or that, even worst, could negatively affect the success of your application. On the other hand, you should provide more details about personal and professional experiences that would make you look suitable for the position.

For the above reasons, this time you wouldn't get the job.

Prof. John Hoffman (Ph.D.)

APPENDIX 10.

Study 4.7. Questionnaire measuring willingness to disclose to a company for market research purposes (adapted from the questionnaire developed in study 1.5).

INSTRUCTIONS FOR THE QUESTIONNAIRE

The aim of this brief questionnaire is to establish your willingness to disclose some information in the context of a market research. Please state, being completely honest, what you will be willing to disclose if these questions were asked by a company for market research purposes.

For each question below, please state your willingness to provide a true and detailed answer. Please rate each question using the scale from 1 to 7, where 1 corresponds to "I prefer to avoid the question" and 7 to "I would provide a true and detailed answer".

(I prefer to avoid the question) 1-----2-----3-----4-----5-----6-----7 (I would provide a true and detailed answer)

1. Which contraceptive method do you prefer	1	2	3	4	5	6	7
2. What is the worst health problem you have had	1	2	3	4	5	6	7
3. Is there anybody in your family with alcohol problems	1	2	3	4	5	6	7
4. Have you ever taken drugs, and if so which	1	2	3	4	5	6	7
5. Do you have debts	1	2	3	4	5	6	7
6. Have you ever had an AIDS test	1	2	3	4	5	6	7
7. Have you ever been unfaithful to your partner	1	2	3	4	5	6	7
8. What characteristics of your parents do you dislike	1	2	3	4	5	6	7
9. Have you ever had depression or anxiety problems	1	2	3	4	5	6	7

311