THE FOUNDATIONS OF INTERPERSONAL TRUST:

CURRENT THEORY AND EMPIRICAL OBSERVATIONS

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The Foundations of Interpersonal Trust: Current Theory and Empirical Observations

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Declaration Of Originality

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GENERAL INTRODUCTION

This masters thesis initially set out to fulfil two aims, one theoretical and one empirical. The first aim was to come to grips with how this phenomenon called trust was generally understood within academia. This was to be achieved through a synthesis of ideas from within psychology as well as a range of related disciplines from sociology to organisational science. The second and quite separate aim was to use and expand upon existing methodology and see how far that avenue of research would prove useful in a particular context. The intention was to measure trust, identify international, gender and age differences therein and also to explore factors resulting in trust. These two endeavours are now presented as two separate wholes i.e. Parts I and II. The first part has also been submitted for review in an international peer-reviewed journal, New Ideas in Psychology. It is only under 'General discussion' at the very end that the two parts are brought together and purposely compared and contrasted. References, appendices and endnotes however, have not been separated and so they are all to be found together in the end.

It should also be stressed at this stage that the reader is *not* urged to "trust" or to have "faith" in that this thesis will deliver an utterly convincing account of trust. Cynicism and scepticism will do nicely. Although one does hope that, at the end, the reader ends up feeling that the author has indeed met both of his aims and that reading this chronicle of a year's work has been time well put to use. And so, without further ado, what follows should hopefully present an equal challenge for the reader to take apart as it was for the author to bring together. Enjoy.

Jani Ruotsalainen Kuopio, Finland 09. 09. 2003

"Any escape from solipsism requires a leap of faith. Religions have 'faith' all wrong. Faith is an act; it is the act of trust required in order to participate in the unknown" (Anonymous, 2003)

ABSTRACT

There is still a fair amount of uncertainty within academic psychology, as well as related disciplines, as to how one should understand and study the phenomenon of interpersonal trust. As a solution to this conundrum, a new theoretical model is presented regarding the operation of interpersonal trust as a contractual social event. The proposed model illustrates how and when specific factors regarding the trusting person and the trusting relationship affect the trust event. It is not however a recipe for producing trust or for achieving the desired effects that may result from trust. This novel conceptualisation of interpersonal trust will help in focusing future research upon specific parts of the problem, instead of perpetuating the existing confusion of trying to address all aspects of the problem at once. The proposed model highlights gaps in the existing literature and points to future applications ranging from developmental to cross-cultural psychology.

Keywords: interpersonal, trust, theoretical model, social contracts

INTRODUCTION

This theoretical treatise on trust begins with a discussion of the problems involved in trying to achieve a synthetic conception of interpersonal trust and after which it tries to reconcile the major definitional difficulty, i.e. the difference(s) between trust and confidence. The overall form of the model is then established and the model presented in pictorial form. A grounding in the literature is achieved by firstly considering factors, on which consensus exists, that are *not* trust, a necessary precursor to the consideration of elements that are *necessary* to trust, and yet are not trust per se. The following section then lists, compares and most importantly, integrates concepts that have been used in the literature when referring to trust. Next, the new trust model is reiterated with examples. The empirical aspect of trust research is then reviewed to evaluate the usefulness of the model (which is reiterated in its entirety with examples) and to identify remaining gaps and future directions. Finally, the concluding section revisits the main advantages of the proposed model whilst reminding the reader of its extensive potential.

> "It is argued that trust, understood often in a very vague an unsystematic way,
> shapes all aspects of human life" (Misztal, 1996, p. 12)

The problem of definition

Trust is a concept fraught with trouble. This is true both philosophically speaking as well as in relation to empirical research endeavours. As one digs into the topic one soon discovers that researchers dealing with trust are often riddled with scepticism or even outright pessimism regarding theory as well as practice.

> [T]he study of interpersonal trust comprises a set of widely accepted
>
> certitudes that often nestle gently in designational and denotional gossamer
>
> (Golembiewski & McConkie, 1975, p. 132)

According to Barber (1983 as cited by Hosmer 1995) trust is supposedly so well known and understood that it seems that no one can actually be bothered to define it properly. Also, when an effort is made, it is often construed so as to actually circumvent defining trust itself whilst directing the gist of explanation elsewhere. Mayer, Davis and Schoorman (1995) clarify this by stating that there are:

> …problems with the definition of trust itself; lack of clarity in the
>
> relationship between risk and trust; confusion between trust and its
>
> antecedents and outcomes, lack of specificity of trust referents leading to
>
> confusion in levels of analysis; and a failure to consider both the trusting
>
> party and the party to be trusted (p. 709)

Problems are also unavoidable when trying to bring together and find a common thread in the efforts of all those interested in the phenomenon. Trust is a topic that has provoked considerable interest and often heated debate within psychology, political science, economics, anthropology, history and sociobiology (Gambetta, 1988). Particularly in psychology, it is considered extremely topical (e.g. Ignatius & Kokkonen, 2002), and yet, psychologists tend to ignore the –often considerable–

theoretical advances made in other disciplines, e.g., sociology, regarding trust (e.g. Luhmann, 1979, 1988; Lewis & Weigert, 1985; Misztal, 1996). But why is it then that the literature offers so little evidence of these efforts aiming to converge? At least within psychology, systematic research into trust began already in the late 50's after which related fields were quickly joining in. Therefore, it cannot be merely a matter of there not having been enough work done by each so as to benefit the others. If anything, the opposite is closer to the truth. Lewicki and Bunker (1995) explain the situation beautifully:

> [T]he different approaches to trust derive from the different theoretical orientations and research interests of those studying the process. Each discipline assumes its own frame and perspective on the phenomenon without effectively articulating the parameters of that frame, each is a blind man describing his small piece of the elephant (p. 135).

So, without efforts to achieve synthesis the metaphoric elephant's leg might remain a tree and its trunk is just as likely to be described as a snake. What is clearly needed then is a new tactic; bravely weeding out solipsisms and other unnecessary "designational gossamer". For this very purpose, a novel conceptual model of interpersonal trust as a contractual social event is proposed, a model that draws extensively upon sociological theory. This model produces a coherent picture of interpersonal trust with a logical sequence of antecedent, necessary concomitant, and resultant factors. It represents an original approach to interpersonal trust, which synthesises current ideas and produces directions for future research efforts. Although at present a truly comprehensive answer may still prove elusive, through successive iterations one should at least expect to get closer. In other words, this at least is a bona fide attempt at tackling the entire elephant.

The problem of Synthesis

There exists considerable scepticism regarding the achievement of a unified account of trust as the following account by Lewicki and Bunker (1995) aptly illustrates:

> [T]he essence of trust cannot be captured by a single, static definition of its key elements and attributes. Trust is a dynamic phenomenon that takes on a different character in early, developing and mature stages of a relationship. (p. 141-2)

This essay therefore aims to take heed of Lewicki and Bunker's reservations whilst producing a model of interpersonal trust as a dynamic and developing event. The model specifies how and when important dimensions of the trusting person and the trusting relationship influence the trusting event. But should this involve conceptualising interpersonal trust as a process as opposed to a state? The choice of considering trust either as a state or a process is arbitrary (e.g. Luhmann 1979) since one can easily imagine developing states as well as organised, state-wise proceeding, processes. Therefore, as the structure of the trust phenomenon can remain ever-elusive when simply bringing ideas together, one must build a chain of logically valid statements. While academics disagree on the *form* of trust, few at least (openly) disagree on the *function* of trust as being the reduction of complexity (Luhmann, 1979). What this means in practice is succinctly explained by Lewis and Weigert (1985):

> It is not possible to develop plans of action, which take into account all possible contingent futures. If all possible future events were accorded equal probability, the future would appear with such enormous complexity as to preclude rational action in the present. What is needed, then, is a strategy to

reduce this complexity to manageable proportions. This reduction of

complexity is possible if the cognitively expected probabilities of most of the

contingently possible future events are thought of as zero for all practical

purposes. (p. 968-9)

This shall be our starting point on which a model of trust can be built. It takes the

reduction of complexity as being the purpose and prime *modus operandi* of trust. The

existence of an intention aiming to achieve this reduction therefore implies that a

condition of trust must first be entered into. This means that such a condition has a

specific starting point in time and thereby should not be regarded as an ongoing

personality attribute (cf. Rotter, 1980; Wrightsman, 1992). Here the distinction

between confidence and trust becomes essential. If trust is viewed as concerning the

conscious weighing of risks, dependence and vulnerability then it becomes obvious

that to do this constantly and in conjunction with every decision would plainly be

unmanageable. Or as Luhmann (1979) puts it: "Neither trust or distrust is feasible as a

universal attitude. That would either be too risky or too great a burden" (p. 72). But

how is it then that trust achieves its aim of reducing complexity if it is not a universal

attitude and how is it different from confidence?

Trust versus Confidence

If confidence is thought of as an unconscious background process (or universal

attitude) that merely expects the continuance of the status quo, then a condition of

confidence can and does manage to assign a working probability of zero to most

possible future events. This would include things like "I'm safe to go outside as the

weather forecast didn't mention anything worrying", or "I'm sure this food won't go

off until Friday". To be more precise, we can be confident about many things but we

still only trust people whether it is individuals or groups. Initiating a trust condition on

the other hand, also implies the use of appropriate behaviour to communicate this intention to the chosen trustee. There are however, probably not that many people who claim to have meaningful conversations with weather phenomena or items of food. Since many (e.g. Hosmer, 1995; Johnson-George & Swap, 1982; Lewicki & Bunker, 1995; Möllering, 2001; Rotter, 1967, 1971, 1980; Tschannen-Moran & Hoy, 1998) agree, in broad terms, on trust at least including an expectation of a favourable outcome, the trusted party must therefore be aware of being trusted to be able to satisfy or dissatisfy this agreement (whereas groceries rarely sprout fungi *intentionally*). Even if the trusting decision were in favour of inaction instead of action as in for example parents reducing their monitoring of their child, the meaning of the said inaction still needs to be differentiated from indifference.

In broad terms however, it is enough for the trustor to *perceive* that the trustee understands and accepts being trusted. Thereby, a case of apparently misplaced trust could boil down to insufficient communication on the part of the trustor. Nonetheless as this essay deals with trust and not (mis)perceptions of intention, it is assumed hereafter that the trusting intention is made sufficiently explicit or that an implicit mutual understanding could also be easily made explicit. Then, as both parties agree on the meaning of the trustor's action they also come to acknowledge the commencement of a contractual agreement. It was MacDonald, Kessel and Fuller (1972) who first noticed that: "the wording of the Rotter Interpersonal Trust Scale items, suggest that the "trust" involved is of a contractual nature" (p. 143). More importantly though, they go on to describe this contract as being a case of: "…direct or indirect, real or imagined, interaction of at least two parties on at least two occasions. The first interaction involves a commitment from party A to party B. The second involves the fulfillment [sic] or lack of fulfillment [sic] of that commitment"

(p. 144). Trust as a contractual event as described herein also presupposes the mutual adherence of both affected parties to an appropriate time-frame. In Tschannen-Moran and Hoy's (1998) words, there needs to exist a time lag "between when a commitment is made and when the recipient [i.e. trustor] knows that it has been fulfilled" (p. 188).

The point of fulfilment of the trusting commitment will be henceforth referred to as resolution since it refers to a juncture when the question of whether trusting was justified or misplaced is resolved. In this sense, e.g. Mayer et al.'s (1995) conceptualisation of trust as merely the *willingness* to take a risk falls considerably short. The contention here is that this willingness also needs to be communicated through behaviour for it to have any functional relevance. Thereby, the dispute as to whether trust is either just behaviour (e.g. Deutsch, 1960; Rotter, 1967, 1971, 1980; Zand, 1972) or a psychological condition of some sort (e.g. Kramer, 1999; Larzelere & Huston, 1980; Lewis & Weigert, 1985; Möllering, 2001) is resolved since the trust event requires *both* to unfold. Simply put, the "psychological" leads to the "behavioural" i.e. the intention is communicated to the trustee whose action(s) lead to the resolution of the trust contract. In essence, the "behavioural" leads back to the "psychological" as the trustor assesses the pros and cons of having had trusted the trustee and so the circle is complete.

Now only two things remain unexplored. Firstly, how is it that one moves from a willingness to take a risk i.e. from whatever bases or reasons the initiation of the trust commitment is based on, to actually taking the risk i.e. to commence the trust event? Second, what happens after the outcome becomes apparent? Luhmann (1979) is pessimistic about it ever being possible or even necessary to fully bridge the gap between reasons and trust. He argues that: "The very multitude of the ways of creating trust makes it fruitless to search for general formulae" (p. 84). What this

means is that although one may reasonably assert the existence of factors, such as information, upon which trust is based on a full list may never be accumulated. In other words, trust is more than the sum of its parts. This is because regardless of the amount and type of "good reasons" there is always something in addition to them akin to what Simmel describes as "quasi-religious faith" that enables the "leap" from interpretation (of reasons) to expectation i.e. the state of trust (Möllering, 2001). Additionally, there can never exist a single reason or even a specific constellation of reasons that would make one automatically trust another person (Hosmer, 1995). That is to say, each and every trusting situation is unique and that we are not trusting automata i.e. we can never say what it is precisely that makes us trust.

Finally, the matters of resolution and consequences of trust are given their respective places within the model. Since the trusting condition covers a more or less distinct temporal period[1] of favourable expectation it does not matter whether this expectation proves justified or misplaced since it cannot affect the nature of the present expectation. All such functional consequences as cooperation, social capital, relationships (Möllering, 2001), spontaneous sociability (Fukuyama, 1995), and etc. can only manifest themselves in connection with relevant future commitments. Consequently, a model claiming to describe the operation of trust per se, as it happens in the present, should not concern itself with predicting the future (Möllering, 2001). Hence we arrive at a view of trust close to that of Rousseau, Sitkin, Burt and Camerer (1998) in which: "trust is not a behaviour (e.g. cooperation) or a choice (e.g. taking a risk), but an underlying psychological condition that can cause or result from such actions" (p.395). The present model (Figure 1) however goes further by describing this psychological condition as a form of social contract that also considers the roles of behaviour, cognition/emotion and risk in a trusting event.

What is Trust not?

There is confusion as to definitions of trust yet numerous observations have been made about what it is most definitely not. Terms that have often been used synonymously with trust (e.g. cooperation, confidence and risk taking) need to be separated conceptually (even if linguistically they may still be thought of as interchangeable with each other). Since trust is a cross-culturally meaningful idea that may be expressed in numerous ways depending on language and culture (see e.g. Pagden, 1988), it is therefore of the utmost importance to at least reduce the existent confusion regarding its usage among the English-speaking academia. Only then does the exploration of cross-cultural dis/similarities become feasible. Herein the simpler or, in some sense, more obvious trust-related concepts will be given a brief mention whereas the more problematic or counterintuitive ones will be explained further. It is the latter that will be integral in building a more unified understanding of the trust phenomenon.

Trust is not the same as gullibility (Rotter, 1971) or naiveté, altruism or stupidity (Friedland, 1990 as cited by Hosmer, 1995). Trust is not simply hope or faith (Luhmann, 1979; Lewis & Weigert, 1985). Most importantly it is not synonymous with confidence (Luhmann, 1988, Misztal 1996, Möllering, 2001). Luhmann (1988) contends that whereas both trust and confidence may lapse into disappointment, it is only with trust that the risk inherent in a situation has to be recognised and accepted. According to Luhmann (Ibid.): "If you do not consider alternatives (every morning you leave the house without a weapon!), you are in a situation of confidence" (p. 97). This distinction is developed further in the proposed synthetic definition of trust. Trust is not prediction or reliance (Deutsch, 1958; Lewis & Weigert, 1985; Mayer, Davis & Schoorman, 1995) since the whole point of trust is to transcend the limits of

available information (Deutsch, 1958; Möllering, 2001). As stated by Mayer et al., 1995: "To equate the two [i.e. predictability and trust] is to suggest that a party who can be expected to consistently ignore the needs of others and act in a self-interested fashion is therefore trusted, because the party is predictable" (p. 714). Hence, trust does involve prediction based on previously acquired data but on its own predictability is insufficient.

Cooperation, as well as other functional consequences of trust, should also never be conflated with the concept itself (Mayer et al., 1995; Möllering, 2001), as is the case with most research employing a game paradigm (e.g. Deutsch 1960; Parks, Henager & Scamahorn, 1996). This is because trust may lead to cooperation but so can a number of other things like greed and coercion. The appearance of a dark cloud above is not the same thing as getting soaked even though the former can lead to the latter. Additionally, trust is not the same as dependence or dependability (Zand, 1972), although along with risk and vulnerability it appears to be a necessary, yet on its own an insufficient, requirement for the emergence of trust (Mayer et al., 1995).

These factors will be dealt with in more detail under the rubric of 'Necessary requirements to interpersonal trust' but before that the relationship between trust and distrust needs to be made clearer. It will be shown that trust should not be seen as simply the opposite of mistrust. In the 1960's and 1970's trust and distrust were thought of as a dichotomy wherein you could only either trust or distrust another party (Deutsch, 1960; Luhmann, 1979; Zand, 1972). Moreover, there was a distinctly negative subtext attached to distrust. Golembiewski and McConkie (1975, as cited by Hosmer, 1995) contested this view of a dichotomy and instead suggested that the two should be seen as opposite ends of a single continuum. In their view one moved from more to less trust and then onto mistrust on a continuous scale. More recently

however, trust and distrust have evolved into separate continuums wherein they can be simultaneously directed toward the same target, in much the same way as one may entertain strong feelings of both love and hate toward a single person (Lewicki & Bunker, 1995).

Agreement also seems to rest within the literature on that distrust can also be, in some circumstances, productive and functional (Johnson-George & Swap, 1982; Kee & Knox, 1970; Lewicki, McAllister & Bies, 1998). Even Rotter (1971), who has been maybe somewhat inappropriately labelled as the origin of extremely rigid views on distrust, acquiesces in saying that "It is clear that the expression of distrust in many situations is not followed by social disapproval" (p. 446). Additionally, Gurtman (1992) states that distrust should not be equated with misanthropy or cynicism. Yet, the usefulness of this distinction can be challenged if we view mistrust as being equally complex as trust. Thereby mistrust is mistrust regardless of whether it is based on hatred or doubts as to the sincerity of others or whatever.

Necessary Requirements to Interpersonal Trust

This section reviews the literature as regards elements that are *sine qua non* to the formation of trust yet are not positioned in a specific temporal or causal position in relation to trust. First of all, *interpersonal* trust, as defined herein, needs a specific target or referent person that is often referred to as the 'trustee' (Kee & Knox, 1970; MacDonald, et al. 1972; Mayer et al., 1995). This may seem self-evident but since numerous academics have also (or only) considered trust in relation to non-specific targets or abstract systems (e.g. Couch, Adams & Jones, 1996; Couch & Jones, 1997; Lewis & Weigert, 1985; Rotter, 1967, 1971, 1980; Wrightsman, 1992) this point needs to be made. The difference between trust in such "fuzzier" entities as human nature, or the purchasing power of money, and trust in a specific person is that the

former should come under the heading of confidence since they do not include a conscious recognition and acceptance of risk (Kee & Knox, 1970; Luhmann, 1988; Misztal, 1996; Möllering, 2001). What is also missing from trust in abstract systems is the acquiescence to an increase in one's own vulnerability and dependence (Gambetta, 1988; Mayer et al., 1995; Sitkin & Roth, 1993; Zand, 1972).

Also, as alluded to in a previous section, a certain amount of prior knowledge is necessary. According to Simmel (as cited by Möllering, 2001), trust operates between total knowledge and total ignorance. With full knowledge there is no need for trust as there is no unknown to pose a risk and with total ignorance one can only gamble, as there is nothing on top of which a positive expectation can be founded. Finally, although there is considerably less agreement in this regard (e.g. Lewis & Weigert, 1985; Fine & Holyfield, 1996), it seems reasonable to assert the necessity of at least a minimal level of emotional involvement between the trustor and trustee in order to enable trust. Fine & Holyfield (1996) posit that trust: "…is possible only in a world of cultural meanings, emotional responses, and social relations…one not only thinks trust, but feels trust" (p. 25).

Comparison of Existing Definitions

The general tendency among scholars of avoiding generalisations about trust because of its supposedly high context- or level of analysis specificity has also lead to an unnecessary partitioning of trust and its origins into a range of different and purportedly separate sub-types. The typologies constructed thus far have usually been based either on the foundations of trust (e.g. calculus-based trust; Lewicki & Bunker, 1995) or the context in which it manifests (e.g. relational trust; Larzelere & Huston, 1980). The following does not intend to be an exhaustive list of the various taxonomies produced to date. It only intends to give some idea of the range and

thereby limitations of this listing-types-of-trust approach. The terms used in the literature have all been italicised for the sake of clarity and increased ease of comparison.

Lewicki and Bunker (1995) suggest that there are three kinds of trust: *calculus-based*, *knowledge-based* and *identification-based*. Zucker (1986 as cited by Hosmer, 1995) also posits three but under the different names of: *process-based*, *person-based* and *institution-based*. In contrast, McAllister (1995) identifies only two kinds: *cognition-* and *affect-based*, whilst Larzelere and Huston (1980) insist on a distinction between *dyadic* and *generalised trust*. Couch and Jones (1996, 1997) however have termed these two respectively as *relational* and *global trust* whilst adding a third one called *network trust*. In contrast, a number of scholars have only considered a single type of trust variously termed either *generalised trust* (e.g. Rotter, 1967, 1971, 1980), *trust in human nature* (Wrightsman, 1992) or anything to that effect. Finally, Kramer (1999) considers as many as six types including: *dispositional*, *history-based*, *third parties as conduits*, *category-based* as well as *role-* and *rule-based trust*.

Appearances may however, deceive and these different types may actually be rather compatible. It will soon become apparent that the terms listed above can in fact be fitted in three categories. These categories are "cognitive", "social" and "personality". To start with, each of the concepts 'calculus', 'knowledge', 'process', 'institution', 'history', 'gossip' (as in third parties as conduits), 'category', 'role' as well as 'rule', refer to previously acquired information. This information then is implied to form "good reasons" (Lewis & Weigert, 1985) for forming a decision to trust. This on its own should not however, as it has already been argued: "...lead us to the common but erroneous inference that trust is fundamentally an individual and

behavioural phenomenon produced by rational machinations of autonomous calculating individuals" (Lewis & Weigert, 1985, p.976).

The remaining two categories should thereby help in surpassing such a cognitivist account of trust. Among the remaining terms, we find such examples as 'identification', 'dyadic', 'relational' and 'network' that all point toward the social function of trust. Hence, it can be argued that this category of terms does not actually differentiate (a) separate kind(s) of trust from those referred to by the first –i.e. cognitive– list. Whereas the first category concerns the bases of trust (i.e. information of some kind) the second one refers to the manifestation of trust within social interaction. Even the insistence of some (e.g. Larzelere & Huston, 1980; Lewis & Weigert, 1985) that the social sphere should be treated as the only or at least as a separate origin of trust, can actually be reconciled with the abovementioned groupings of terms by treating "the social" simply as another source of trust-relevant information. Finally, the terms left over from the previous two categories i.e.: 'person-based', 'global', 'generalised' and 'in human nature' can also be conveniently grouped together as referring to trusting as it reflects the trustor's personality or propensity to trust. Not surprisingly then, the trustor's personality can be thought of as yet another source of information[2].

Additionally, there are also those who catalogue the numerous purportedly necessary properties of the *trustee* (see Mayer et al., 1995 for a review). These factors will be considered herein as also coming under the loose heading of 'social information' that may contribute to trust. The following section will endeavour to combine the three facets of trust bases (cognitive, social and personality) unearthed in this section to produce a synergetic description of trust as a social event based on the consideration of assorted types of information. This model thereby transcends

previous research that has stumbled onto the "chicken and egg"-paradox of either only considering the antecedents or the results of trust. Yet, a complete view of trust should not fight against trust being *both* a noun and a verb (Tschannen-Moran & Hoy, 1999). Or as Lewis and Weigert (1985) put it: The roots of trust extend to every modality of human experience but it does not thereby lose its unity" (p. 972).

This amalgamation of ideas regarding trust into a single coherent whole enables two things. First, a model can be drawn up that shows the interrelationships of the various elements involved in trust in their proper sequential order (antecedents, necessary concomitants, trust itself and consequences). Second, one can plot the achievements of previous research onto this model and in so doing produce a clearer picture of how each of them contributes to the whole. The function of this model is therefore not to reduce us humans into simple and predictable stimulus-response automata but to factor in all the elements involved in the trusting event.

To summarise then, interpersonal trust can be defined as a contractual social event. The trustor's decision to trust is based on various sources of information (as defined loosely) and a conscious weighing of the increases in risk, vulnerability and dependence. It manifests as a state of favourable expectation on the part of the trustor regarding the trustee's actions. A certain level of agreement needs to exist between the trustor and the trustee regarding the nature of the actions required of the latter and the time frame within which to execute them. This is essential for enabling the trustor to conclude whether his or her trust in the trustee was in the end justified or in fact misplaced. This judgment of un/trustworthiness can then bring about various effects that can only manifest in connection with relevant future events and not with the present one.

Figure 1: A model of interpersonal trust operationalised as a contractual social event
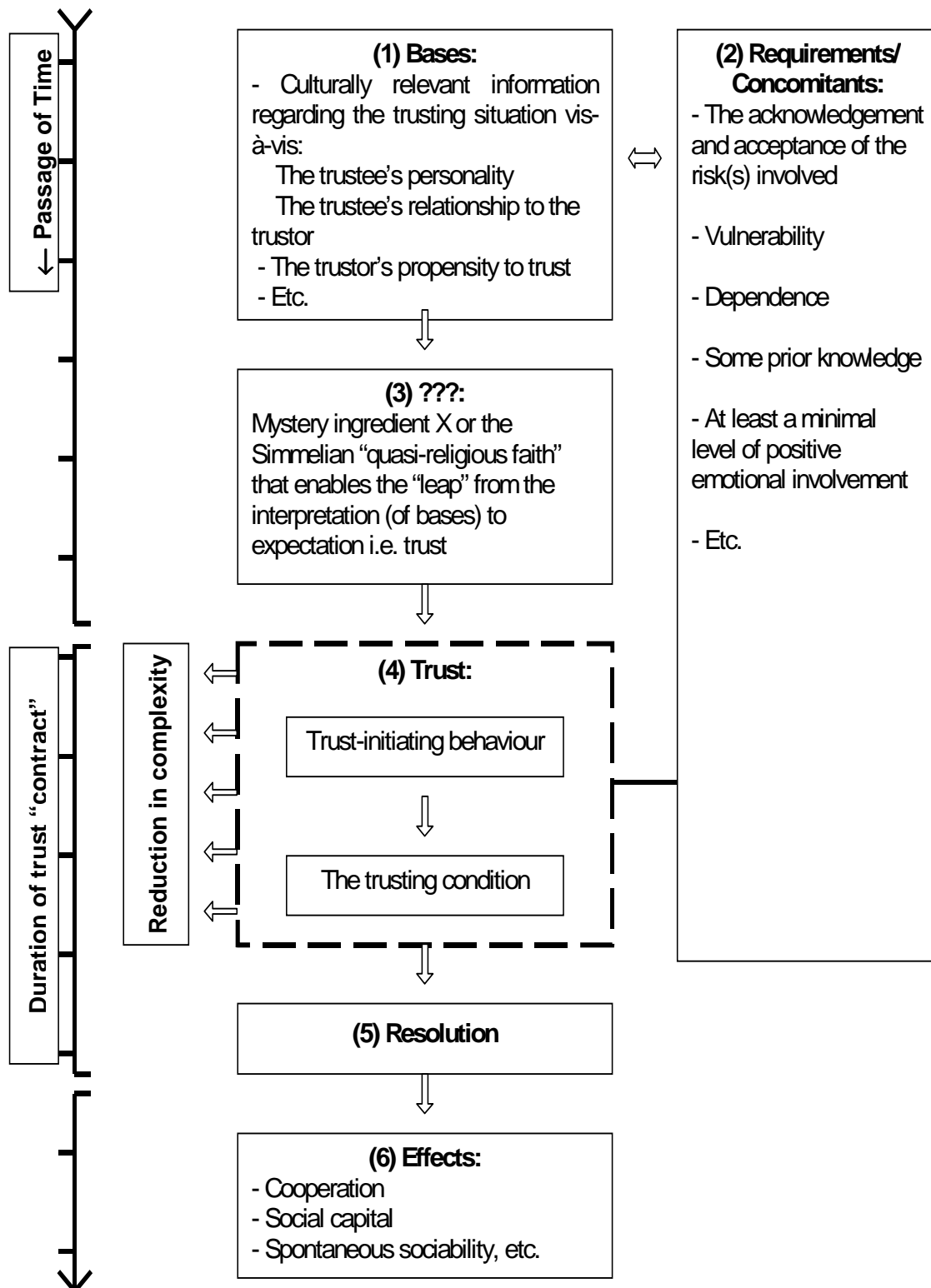
Working through the model

Now that some conceptual foundations for a new conception of trust have been laid it is time to run through the proposed model from start to finish. Let us take two individuals, Bill and Ted, who have known each other for a score of years. To simplify things, it is assumed that through their friendship they have developed a thorough understanding of each other's cultural backgrounds and accepted ways of conducting oneself in morally correct ways. Bill then is the trustor who has access to a sizeable quantity of trust information relating to himself, his family and friends, the surrounding community/ies and the present situation. This information is represented by the first and topmost of the boxes in Figure 1. Bill then weighs all this information against the possible hazards of trusting Ted when it comes to a particular instance. It is important to include this referent event for trust in the model since (due to reasons outlined above) we are not dealing with generalised or universal trust but trust in specific individuals and in reference to particular things.

So, in order for the trust contract to begin Bill must yield to an increase in risk and his dependence on Ted as well as becoming vulnerable to e.g. Ted's possible abuse of the situation to his advantage. There must also exist at least a minimal level of positive emotional involvement between Bill and Ted for a condition of trust to commence. For example, an unfulfilled promise would not matter as such if the person expecting promise fulfilment, i.e. Bill, had no emotional investment in the matter to start with. If Bill suffers only general annoyance or slight frustration but no personal hurt we would not consider the situation as having been one of trust. To sum up then, in addition to a positive emotional investment, there must exist an acknowledgement and acceptance of an increase in personal risk, vulnerability and dependence parallel to the trust agreement. The status of these factors can then only

be reviewed at the resolution of the trust contract. The long vertical box number 2 on the right in Figure 1 represents these required or concomitant factors.

Then after much deliberation, which may or may not have been entirely conscious, Bill decides to trust Ted and so he makes that all-important leap of faith from reasons for trusting into actually doing so. The third box in Figure 1 represents this "leap", as well as the Simmelian "quasi-religious faith" enabling it. In the present example Bill needs to then communicate his willingness to trust Ted by engaging in an appropriate action. This might entail lending Ted something or asking him to do a favour. Yet, regardless of how trust is displayed (or only somehow implied) the trustee, i.e. Ted, agrees to take on the responsibility and thus through mutual understanding (genuine or only perceived by trustor) a contract of sorts is initiated. It is through a series of similar agreements that Bill, like the rest of us, is able to ease the otherwise insurmountable amount of uncertainty inherent in everyday life. In Figure 1, the fourth box with the dotted lines indicates this, the actual trust stage.

Finally, as Ted delivers i.e. returns the borrowed item or shows having had done the favour (or equally fails to return the item or shows having had forgotten the favour) the trust contract terminates. As Bill can then judge the wisdom of having placed his trust in Ted the matter is resolved. The fifth box in Figure 1 designates this juncture. The concluding stage of the model, although it is beyond the scope of the trust event per se, is vital in the larger scheme of things. In other words, the effects of trust are what connect the model and any practical applications it might have to reality. In fact, Figure 1 might just as well have feedback loops leading back from the final box to the first and second ones.

However, the impression that the present form of the model is intended to give is that the whole process is a future-oriented one. So regardless of whether Ted does

deliver and Bill's trust in him proves to have been justified or not the resolution of the matter provides Bill with a wealth of new information. It can also lead to changes in attitude, emotion, etc. and above all new actions e.g. trusting Ted with regard to other things or more important things and maybe even to trusting people in general more. Most importantly though, each running through of the "trust program" as laid out herein changes the initial set-up of future trust events and so has nothing whatsoever to do with the present one. In other words, the feedback loops from the final box (if one wanted to add them) would lead to the first and second boxes in a similar depiction of a future trust event.

Methodologies Used in Studying Trust

Now, after establishing an impression of theoretical confusion among scholars interested in trust one must also look at the methods that are partly to blame for the emergence of this confusion. The earliest method used in trust research was The Prisoner's Dilemma game e.g. Deutsch (1958, 1960). Since then the use of such mixed motive games has largely been phased out or discontinued all together (see e.g. Parks et al. 1996; Ostrom & Walker, 2003 for recent exceptions) due to extensive criticisms regarding their validity. Rotter (1971) for example states that: "…if the results of these studies were characteristic of everyday behavior, the normal adult is so competitive, uncooperative, and untrusting that he could hardly get through a normal day's activities." (p. 444). See Kee and Knox (1970) for a comprehensive critique of this approach. The paradigm that emerged to supersede the use of mixed-motive games was the employment of questionnaires (e.g. Couch, Adams & Jones, 1996; Johnson-George, & Swap, 1982; Larzelere & Huston, 1980; Rotter, 1967, 1971, 1980).

The problem with questionnaires is that they all retain the baggage of the unresolved definition issue. Therefore, what the questionnaires actually measure may vary from the respondents' typical behaviours in certain circumstances to their beliefs about the truthfulness of the actions of others and everything in between. This has lead to trust questionnaires being criticised for their reductionism (Lewis & Weigert, 1985; Möllering, 2001). However, Möllering (2001) also laments the fact that the open-ended and empathising method he himself is advocating remains "notoriously hard to operationalise" (p. 416). Therefore, qualitative research into trust remains hard to come by. Gladly there are some (e.g. Fine & Holyfield, 1996) that have achieved some progress in this regard. Although the presently constructed model of trust does not indicate the superiority of any single method in studying trust in the future, it does, with its broad basis within the literature, present a promising framework for re-evaluating past failings and designing novel approaches.

Existing Gaps and Future Directions for Trust Research

The largest obstruction to the advancement of trust research has thus far been a unified way to define interpersonal trust. This essay aims to exceed this impediment at least in general terms. However, the model still needs to be developed to enable it to reflect, for example, changes occurring during the human life span. From a developmental point of view, the literature on trust presents a gaping hole in that the phenomenon has been considered in early infancy (e.g. Erikson, 1995) and adulthood (see above) but little explicit consideration seems to have been given to how the one might develop into the other, or indeed if they are related at all. Within the questionnaire paradigm there is also a noticeable lack of using multiple informants to fill in the same questionnaire about a single individual. This is often done in conjunction with studies of individual differences such as perceptions of popularity

etc. so it could equally well be done with perceptions of trusting and trustworthiness. In a similar vein, Rotenberg (1984) challenges the validity of assessing trust in hypothetical others rather than trust in one's actual peers.

The inclusion of specific others into the equation boils down to the issue of definition. If trust is viewed as a universal attitude it will be seen to function similarly regardless of whether the trustee is an old friend or a new acquaintance. But if trust is seen along the lines of the proposed model, as being akin to a contract that is renegotiated each time someone is trusted, then the identity of the trustee does matter alongside a plethora of other situational factors. And yet, even though associations have been sought between the individual attributes of the trustor (e.g. Deutsch, 1960; Wrightsman, 1992) and the level of trust, as well as between the trustee's attributes and the level of trust (e.g. Mayer et al., 1995) no consideration seems to have been given to a possible interaction between the two.

The investigation of cross-cultural differences should also be somewhat easier as the proposed model describes the trusting event in its entirety. Thereby, interpersonal trust research should occupy itself not with identifying and classifying different types of trust as they occur in various settings, but with exploring which elements of the proposed model differ, in what circumstances and how. For example, it could be hypothesised that what constitutes relevant information likely to lead an individual to trust another might vary considerably according to one's cultural background and present setting.

Conclusion

It has been shown that there exists considerable uncertainty within psychology, as well as related disciplines, as to the best way(s) of understanding and studying interpersonal trust. This essay presents a new conceptual model describing

interpersonal trust as a contractual social event. This model enables future research to focus only on certain aspects of the trusting event at a time. The model should also alert researchers to the fact that trying to factor in all the (possible) variables involved in a trusting event may in fact prove impractical. For example, the sources of information that might lead one person to decide to trust might not be the same for another person of a different age, emotional state, cultural background or whatever. People's evaluations of the sufficiency of these "good reasons" (to lead to trust, i.e. the "leap of faith") might also be expected to vary as well as their awareness and handling of an increase in risk, dependence and vulnerability.

Also as (mis)communication, (mis)perception and (mis)understanding become involved in the negotiation and execution of the trust "contract" the equation becomes ever more complex, albeit the contributing pieces remain conceptually simple. Further research is thereby needed to explore all the facets of the proposed model first on their own and only then in some combinations so that possible interactions can be unearthed. This needs to be done also within a developmental framework to see how the process of trusting changes during our life span as well as during our various relationships. The viability of the proposed model should also be tested cross-culturally to see whether people of varying backgrounds for example extract and manage cues of trustworthiness differently.

All in all, interpersonal trust is a fascinating phenomenon that has a significant import upon numerous spheres of human existence and thereby deserves to be studied further. However, to do this properly one must transcend the existent confusion and embrace a completely new approach. This essay goes some way to provide an idea as to what this new tactic might entail.

ABSTRACT

Interpersonal trust seems to have run the gamut of explanations within psychology and all related disciplines and yet the amount of empirical research conducted has yielded very little in terms of linking trust with other phenomena. This study extends previous findings by illuminating some of the processes that result in trust. Altogether 259 Finnish and British adolescents between the ages of 12 and 16 filled in a set of questionnaires dealing with trust, emotional intelligence, self-esteem and various indications of psychosomatic stress. Hierarchical regression analyses show that with the present sample, emotional intelligence and self-esteem appear to explain a large proportion of the variance in trust scores as measured by two separate scales. Some significant differences also emerged between and within the sub samples but only with very small effect sizes. Hence, these findings may well be of negligible value to individual differences research but they do carry considerable weight toward advancing our understanding of the formation and negotiation of trust. The present results are also discussed in relation to current and future empirical trust research.

Keywords: interpersonal, trust, stress, emotional intelligence, self-esteem

INTRODUCTION

Trust as an object of psychological enquiry has by now accumulated quite an interesting history to its name. The need for a proper understanding of the workings of trust grew out of the escalating suspicions brought about by the Cold War. Psychologists (e.g. Deutsch, 1958, Mellinger, 1958) were eager to join the mathematicians and economists already studying game theory in order to find a scientific solution to the costly and dangerous armaments race. Subsequently, the major societal upheavals of the 1960's USA (i.e. "The atom bomb, the Asian war, the college student, the hippie, the black revolutions and the problems of pollution and overpopulation" as listed by Rotter in 1971, p. 443) brought about a change in perspective. Trust was now studied as a generalised personality trait, i.e. collective problems were seen to stem from the individual. Since then, interest in trust has continually expanded into fields as diverse as education (e.g. Goddard, Tschannen-Moran & Hoy, 2001) interpersonal relationships (e.g. Johnson-George & Swap, 1982; Larzelere & Huston, 1980; Rempel, Holmes & Zanna, 1985), sociology (e.g. Lewis & Weigert, 1985; Luhmann, 1979, 1988; Misztal, 1996) and organisational science (e.g. Gambetta, 1988; Kramer, 1999). And although the aims of today's trust research may not be as noble as preventing thermonuclear Armageddon (or even containing civil dissent), it may well produce more tangible, meaningful and useful results since its diversification enables more levels of analyses and an increased specificity of applications.

But, as always, a continual increase in the variety of theory and practice may not be an entirely good thing. It means that it is now increasingly difficult to choose a particular approach and to justify doing so. And yet, although academics interested in trust cannot agree amongst themselves on what it is exactly (feelings, behaviours or

whatever) most appear to at least accept that it must be something measurable. But what is it then that people have gauged as manifestations or indications of trust? Initially trust research was synonymous with measuring observable behaviour, or to be more precise, choices made within the confines of a Prisoner's Dilemma (PD) or a comparable non-zero sum game. Such studies do indeed yield easily attainable measurements but what in the end do such quantifications tell us about the individuals they mean to describe or of the workings of trust?

Rotter (1971) for example is of the opinion that whenever trust researchers have tried to identify individual differences: "…they usually failed to find relationships between personality variables and trusting behavior, *particularly in the prisoner's dilemma paradigm*" (p. 444, emphasis added). Although he does go on to add that: "One exception, evidenced from such studies as those of Deutsch (1960) and Wrightsman (1966), indicates that trust and trustworthiness are positively associated" (p.444). Macdonald et al (1972) on the other hand found that PD was related to self-disclosure as well as authoritarianism whereas interpersonal trust as measured with Rotter's scale was not. But then again, no relationship was found between the two trust indices suggesting that the two actually measure completely different things. According to Butler (1983, as cited by Sitkin & Roth, 1993) the primary finding emanating from relevant individual differences research is that personality traits and perceptions of others appear not to be significant predictors of trusting behavior whereas reciprocal trust from the other party is. His view is therefore, in essence, a reiteration of Rotter's view above in that trustworthiness appears to beget trust and vice versa.

So if trust and trustworthiness have not been found to vary as a function of anything but each other has it then been a case of perhaps not measuring the right

things? In other words, there might be some other factors that, as yet, have been overlooked as possible correlates, antecedents or consequences of trust. The other, rather different explanation is that constructive quantifications of trust may well be attainable but not with the tools presently available i.e. the thing being incorrectly measured would be trust itself. Thereby, current trust scales might not be sensitive enough for reaching the level of individual differences. But how about group differences then, one might ask?

Johnson-George and Swap (1982) found their adult female participants consistently making more trusting ratings of their partners. Rotenberg (1984) on the other hand failed to obtain a similar gender difference in children. He did however find that there was a same sex pattern in children's trust in their peers in that girls trusted girls more than boys and boys trusted boys more than they trusted girls. Goddard et al. (2001) on the other hand, found teachers' trust in students varying as a function of the students' socio-economic status (SES). In other words, some evidence exists of the amount of trust varying at least between some distinct groups and in reference to certain targets.

Consequently, the search for both individual as well as group differences in trusting was made a central part of the current study along with hopefully identifying other correlates of trust apart from trustworthiness. The chosen contenders for such factors are self-esteem (Rosenberg, 1965) and emotional intelligence (Schutte et al., 1998) and psychosomatic health/stress. The presently chosen sample population also consists of school-aged children or, more precisely, adolescents as it was thought that to them issues of trust might be especially salient and topical as they are negotiated along with concerns relating to bullying, self-esteem, emotional intelligence, etc. As alluded to above, the present study has therefore two specific hypotheses. The first

one asserts that the level of trust and distrust, as measured by the two scales (Couch et al., 1996: Trust Inventory and Macdonald et al.: 1972: Self-Report Trust Scale) independently, will differ significantly as a function of the participants' nationality, age and/or gender (and possibly as a function of some of the individual differences measures). The second hypothesis to be affirmed or rejected attests that levels of trust and distrust can be predicted from one or more of the following factors: somatic stress, general health, experiences of bullying, emotional intelligence, self-esteem as well as gender, age and nationality.

METHOD

Participants

The participants of this study consisted of two separate opportunity samples. The first sample of 137 participants consisted of 12 to 15 year-old male and female pupils attending a co-educational secondary school in the South of England whereas the second sample consisted of 122 participants of 12 to 16 year-old pupils of the equivalent educational level in a co-educational secondary school in Finland. The combined sample was therefore a total of 259 participants. Of the British sample, 48.9% were female and 44.5% male (6.6 % refused to disclose their gender). Of the Finnish sample, 57.4% were female and 42.6% were male. So thereby of the whole sample, 52.9% were female and 43.6% were male whilst 3.5% failed to make their gender known.

At the time of testing the ages of the UK participants were scattered as follows: 13.9% were 12, 32.8% were 13, 35.8% were 14 and 16.8% were 15 years old and one girl did not indicate her age. Whereas the ages of the Finnish sample were spread out so that: 6.6% were 12, 28.7% were 13, 26.2% were 14, 31.1% were 15 and 7.4% were 16 years old. Thus, of the entire sample, 10.4% were 12, 30.9% were 13, 31.3% were 14, 23.6% were 15, 3.5% were 16 years old and the one (0.4%) did not indicate her age.

Materials

Every participant was given a set of papers consisting of: an informed consent form, a set of questionnaires and a debriefing form. These are attached as appendices A, B to F and G respectively.

Development of the set of questionnaires used

It was decided that for one of the purposes of the current study, i.e. the possibility of connections between psychosomatic stress and trust, a new assessment tool was needed (see Appendix B). This new questionnaire was construed entirely by the Finnish research team and then translated by the researcher for use with the British sample. Items were constructed to reflect the range of age-appropriate physical as well as psychological stress symptoms. Health measures included a 20-item somatic symptom checklist (Aro, 1988), nine items taken from the General Health Questionnaire (GHQ-12; Goldberg, 1972), four items measuring emotional burnout based on the Maslach Burnout Inventory (Maslach & Jackson, 1986), and the question, "How was your health during the last year?" The two questions relating to bullying and being bullied -"How often have you taken part in bullying others in this school term?" and "How often have you been bullied in this school term?"- were taken from Olweus (1993). The rest of the items were loosely based on related work done previously by the Finnish research team with adults.

Procedure

The study was run independently in Finland and in the UK after which the two parties shared datasets with one another. The British sample was collected all in one session under the supervision and with the assistance of several teachers. When the participants were all seated and settled the researcher spoke about the instructions for filling in the questionnaire. It was emphasised that the questionnaire was anonymous and was to be filled in independently. The concept of anonymity was also briefly discussed to ensure that everybody understood that taking part would not have any effect on the participants' grades or anything else at school or outside of it. Before filling in the questionnaires the participants were asked to read through the informed

consent form. The researcher explained how they could consent to the researcher using their responses by signing the informed consent form. The participants were assured that anyone who needed assistance with the questionnaire would be given it on a one-to-one basis. The questionnaire was then administered in relative silence.

Ethical considerations

When dealing with under aged participants one must obviously tread extra carefully and this was to be no exception. In the current study this care is evident in several of the following procedural details. Fully informed consent was obtained from all participants. The meaning of some of the perhaps more unfamiliar words in the consent form like anonymity and consent were briefly discussed with pupils to ensure that everybody understood the terms. The participants were also informed of the expected, rather long (i.e. 45 minutes), duration of the study. Running the study took so long because there were in total eight questionnaires to fill in. This procedure had been previously agreed upon with the Finnish research team and so at the time of running it was not known if all of the responses would be used in the present analyses.

The participants were reminded that they could feel free to respond in complete honesty, as individuals could not be identified from their answers. They were also assured that taking part would not have any adverse (or favourable) effects on their grades. In fact, the school would receive the same summary information that participants received (if they so wished). It was made clear to the participants that they were free to withdraw their participation for any reason and at any point, including after the questionnaires had been handed in. The participants were also given a separate sheet (see Appendix G) to take away providing names and contact information for advice and counselling services if, despite all precautions, the experience of having participated in this study had produced discomfort.

RESULTS

This section is divided into four subsections. The first subsection describes how and why the initial data set was reduced down to the final set of summary indices. The second subsection then summarises the acquired data set by listing Ns, minimums, maximums, means and standard deviations. The third then illustrates the analyses of variance that were employed on the data in order to discover significant group differences. Finally, the fourth subsection describes the process of running multiple hierarchical regression analyses on the data whilst illustrating the results thus unearthed.

DATA REDUCTION

It was necessary to reduce individual questionnaire responses to manageable indices of the experimental variables i.e. trust, self-esteem, emotional intelligence and the various health measures. For this end, means were calculated for each participant and each measure. With the pre-existing measures i.e., self-esteem, emotional intelligence and the two trust scales it was possible to compute both a positive and negative mean score for each participant thus reflecting the two opposing facets of these constructs and enabling a larger range of comparisons. These mean scores were arrived at by first performing principal components analyses with Varimax rotation on the acquired responses in order to ascertain the relevance of the scales' constituent items. These analyses were run first on both samples separately and then with the entire combined data set and only items that loaded similarly throughout and with Eigen values over .5 were used to compute the final scores.

First of all, the self-esteem scale turned out to be extremely robust, with positively worded items loading on one factor and negatively worded items on another. Seven out of the ten items loading positively on the first factor also loaded

negatively on the other. Hence, all items were kept and the individual scores were computed as the mean of responses to positively worded items and the mean of responses to negatively worded items. In the emotional intelligence scale however there were only three negatively worded items to start with but they all loaded on one factor only. The analysis also spread out the positively worded items over several factors but since intelligence can be argued to be such a multifaceted concept and since none of the items loaded significantly on several factors (either positively or negatively), all positively worded items where assumed to mirror one underlying structure. Only item number six did not load on to any factor and was thereby not used in computing the final emotional intelligence sores. The score for trust (SRTS) ended up being the mean of responses to items 1, 6, 7 and 9, whereas distrust (SRTS) was calculated as the mean of responses to items 2, 4 and 5. Items 3, 8 and 10 where thereby excluded, as they did not produce factor loadings in any consistent manner. Finally, the scores for trust (TI) and distrust (TI) were computed as the means of responses to items 3, 6, 17, 18, 19, 20 and 7, 9, 11, 13, 14 respectively. Items 1, 2, 4, 5, 8, 10, 12, 15 and 16 were thus excluded, as again they did not produce factor loadings in a uniform way.

With the specifically designed health questionnaire this process was rather simpler as no factor analyses were required. Apart from the four items: 1.6, 1.11.1, 1.11.2 and 3.1, responses to the health-related questions were recoded. Responses to questions 1.8.1 - 1.8.4 reflecting tiredness were tallied so that only responses 5 and 6 were regarded as indications of considerable tiredness. From the participants' responses to questions 3.2.1 - 3.2.20 only responses 4 and 5 were counted as indicators of significant somatic stress. Finally, of the responses the participants gave to the general health questions 3.3.1 – 3.3.9 only responses 3 and 4 were considered

indicative of serious health problems. Responses to questions 1.2 to1.5, 1.7, 1.9.1 to1.9.9, 1.10.1 to 1.10.13 and 2, were consequently left out of analyses completely because they were designed according to the research interests and needs of the Finnish research team and so were deemed not to have significant import upon these particular analyses.

ANALYSES

Descriptives

Table 1: A summary of the entire set of measures used for analyses

	N	Min	Max	Mean	SD
Days spent off school due to illness during the last 12 months	254	0	60	5,74	7,50
Count of tiredness indicators	259	0	4	0,66	1,00
Self-reported frequency of having been bullied at school during this semester	259	1	4	1,43	0,73
Self-reported frequency of taking part in bullying others at school during this semester	259	1	4	1,47	0,71
Self-reported state of health during the last six months	258	2	5	4,02	0,78
Count of somatic stress symptoms	259	0	12	2,32	2,68
Count of general health symptoms	259	0	9	1,82	2,24
Score for good emotional intelligence	258	1,00	5,00	3,56	0,52
Score for bad emotional intelligence	258	1,00	5,00	2,65	0,71
Score for good self esteem	257	1,20	5,00	3,93	0,78
Score for bad self esteem	257	1,00	5,00	2,75	0,96
Score for trust (Self-report trust scale)	258	1,00	5,00	3,61	0,62
Score for distrust (Self-report trust scale)	258	1,00	5,00	2,80	0,79
Score for trust (Trust Inventory)	258	2,00	5,00	3,75	0,58
Score for distrust (Trust Inventory)	258	1,00	5,00	2,88	0,72

Some of the results provided in Table 1 above are now clarified so as to save the reader from having to refer to the Appendices for deciphering their meaning. Self-reported frequency of having been bullied and of having taken part in bullying others at school were both measured on a four point scale. For both questions the response scale ranged from (1) "not at all" to (2) "rarely" and then to (3) "about once a week" and finally to (4) "several times a week". The means obtained therefore denote a relative rarity of occurrence both in being the victim and perpetrator of bullying. The attained mean score for self-reported state of health during the last six months on the other hand corresponds closely with response option number four (on a five-point scale ranging from "very bad" to "very good") i.e. "quite good". The remaining figures should however be decipherable with the aid of the previous subsection.

Analyses of variance

A series of ANOVAS were conducted on the data to establish whether the participants' scores on the various measures differed significantly as a function of nationality, gender or age. With reference to nationality it was found that Finnish participants (Mean = 3.89, SD = 0.53) scored significantly higher on trust (TI) than the British participants (Mean = 3.62, SD = 0.60) did, $F(1,235) = 10.4$, $p = 0.001$, $Eta^2 = 0.042$. A similar result was obtained when the Finnish participants (Mean = 3.77, SD = 0.55) were found to score significantly higher than the British participants (Mean = 3.46, SD = 0.65) also on trust (SRTS), $F(1,235) = 16.676$, $p < 0.001$, $Eta^2 = 0.066$. The two nationalities differed also in respect to distrust (TI) so that the British participants (Mean = 3.03, SD = 0.74) scored significantly higher than Finnish participants (Mean = 2.71, SD = 0.68), $F(1,235) = 6.687$, $p = 0.01$, $Eta^2 = 0.028$. There was however, no significant difference between the two regarding distrust (SRTS).

The two samples also differed significantly regarding self-reported health with Finnish participants (Mean = 4.14, SD = 0. 7) scoring significantly higher than the British participants (Mean = 3.91, SD = 0.83) did, $F(1, 256) = 5.626$, $p = 0.018$, $Eta^2 = 0.022$. The final difference between the two nationalities shows Finnish Participants (Mean = 2.97, SD = 0.97) scoring significantly higher on bad self-esteem than the British participants (Mean = 2.55, SD = 0.9) did, $F(1, 255) = 12.477$, $p < 0.001$, $Eta^2 = 0.047$.

Of the remaining analyses that contrasted all the psychosomatic health, emotional intelligence and self-esteem measures with gender the following scores yielded significant differences among the present sample. Females (Mean = 3.82, SD = 0.56) were found to score significantly higher on trust (TI) than Males (Mean = 3.71, SD = 0.59), $F(1,230) = 4.683$, $p = 0.031$, $Eta^2 = 0.02$. Females (Mean = 3.66, SD = 0.43) were also found to score significantly higher than Males (Mean = 3.47, SD = 0.55) in good emotional intelligence, $F(1,230) = 6.778$, $p = 0.1$, $Eta^2 = 0.029$. Quite surprisingly then, Females (Mean = 3.05, SD = 0.94), also scored significantly higher than Males (Mean = 2.39, SD = 0.84), in bad self-esteem, $F(1,229) = 10.183$, $p = 0.002$, $Eta^2 = 0.043$.

Finally, significant age differences were only discovered in relation to bad self-esteem. It was found that 16- (Mean = 3.31, SD = 0.95) 15- (Mean = 2.84, SD = 0.94) and 14-year olds (Mean = 2.95, SD = 0.92) scored significantly higher than 12-year olds (Mean = 2.29, SD = 0.92) and that 16- and 14-year-olds scored significantly higher than 13-year olds (Mean = 2.56, SD = 0.4), $F(4, 251) = 4.249$, $p = 0.002$, $Eta^2 = 0.063$.

Regressions

The purpose of this phase of the analyses was to examine the relationship of the selected psychosomatic health indices (general health, tiredness, psychosomatic stress and bullying) to trust and distrust. Separate hierarchical multiple regression analyses were conducted to examine the unique relationship of the psychosomatic health indices with trust and distrust. For each of the four trust indices (trust and distrust as measured by the TI and the SRTS), the regression analysis consisted of three steps. The first step examined the relationship of age, gender and nationality with one of the trust indices as the dependent variable. The psychosomatic health indices were entered as the second step, whilst the third step added the emotional intelligence and self-esteem measures. The four regression analyses were thus conducted with each trust and distrust score as the dependent variable. The results of the hierarchical regression analyses are presented below for each of the trust variables.

Table 2: Result of hierarchical regression with trust (TI) as dependent variable

	R	R^2	Adj. R^2	Std. Error of the Estimate	Change Statistics				
Step					R^2 Change	F Change	df1	df2	Sig. F Change
1	,226	,051	,040	,57071	,051	4,468	3	249	,004*
2	,390	,152	,117	,54722	,101	4,119	7	242	,000**
3	,667	,444	,412	,44670	,292	31,291	4	238	,000**

* p = 0.05, ** p = 0.001

Table 2 above shows that nationality contributed significantly to trust (as measured by the TI), as did the psychosomatic health measures but that emotional intelligence and self-esteem contributed the most. And it was specifically the scores on good self esteem and good emotional intelligence that contributed significantly. However,

comparison of the Beta values showed that the contribution of emotional intelligence was about three times that of self-esteem. Of the psychosomatic health measures the frequency of having bullied others, self-reported general state of health, count of somatic stress symptoms and count of general health symptoms contributed significantly.

Table 3: Result of hierarchical regression with trust (SRTS) as dependent variable

	R	R^2	Adj. R^2	Std. Error of the Estimate	Change Statistics				
Step					R^2 Change	F Change	df1	df2	Sig. F Change
1	,264	,070	,058	,60310	,070	6,203	3	249	,000**
2	,396	,157	,122	,58226	,088	3,591	7	242	,001**
3	,622	,387	,351	,50085	,230	22,266	4	238	,000**

*$p = 0.05$, ** $p = 0.001$*

Table 3 shows that again age, gender and nationality contributed significantly to trust (as measured by the SRTS), as did the psychosomatic health measures, and that again emotional intelligence and self-esteem contributed the most. Again, only the scores on good self esteem and good emotional intelligence contributed significantly. As with trust (TI) comparison of Beta values showed that the contribution of emotional intelligence was about three times that of self-esteem. Of the psychosomatic health measures the number of days off school due to illness, the frequency of having bullied others and self-reported general state of health contributed significantly.

Table 4: Result of hierarchical regression with distrust (TI) as dependent variable

	R	R^2	Adj. R^2	Std. Error of the Estimate	Change Statistics				
Step					R^2 Change	F Change	df1	df2	Sig. F Change
1	,227	,051	,040	,71025	,051	4,494	3	249	,004*
2	,322	,104	,067	,70034	,052	2,014	7	242	,054
3	,473	,224	,178	,65706	,120	9,233	4	238	,000**

*$p = 0.05$, **$p = 0.001$*

Table 4 above shows that age, gender and nationality contributed significantly to distrust (as measured by the TI), whereas the psychosomatic health measures did not. Again, emotional intelligence and self-esteem contributed the most. But this time however, scores for both good and bad emotional intelligence as well as self-esteem contributed significantly.

Table 5: Result of hierarchical regression with distrust (SRTS) as dependent variable

	R	R^2	Adj. R^2	Std. Error of the Estimate	Change Statistics				
Step					R^2 Change	F Change	df1	df2	Sig. F Change
1	,165	,027	,015	,78526	,027	2,320	3	249	,076
2	,280	,078	,040	,77533	,051	1,917	7	242	,068
3	,424	,179	,131	,73766	,101	7,338	4	238	,000**

*$p = 0.05$, **$p = 0.001$*

Table 5 shows that neither age, gender or nationality contributed significantly to distrust (as measured by the SRTS), nor did the psychosomatic health measures. Emotional intelligence did however contribute significantly, whereas self-esteem did not. As with distrust (TI), scores for both good and bad emotional intelligence contributed significantly.

DISCUSSION

The two samples obtained for the present study, i.e. British and Finnish adolescents differed significantly with respect to three of the four calculated trust indices. Analyses of variance showed that the Finnish participants scored higher on both trust scores and lower on one of the two distrust scores. Females were also found to score significantly higher than males on one of the two trust scores. Further significant differences were identified with regard to gender, age and the remaining indices. Females were found to score significantly higher than Males in good emotional intelligence and bad self-esteem. With regard to age there was only one significant difference in that the score for bad self-esteem appeared to increase somewhat as a function of age. All effect sizes were however very small. Through hierarchical regression analyses it was found that a significant proportion of the variance in trust scores as measured by two separate scales (the Trust Inventory and the Self-Report Trust Scale) was explainable by variation in emotional intelligence, some indicators of psychosomatic health, self-esteem and finally, nationality. Throughout, emotional intelligence provided the single largest contribution toward explaining the variance in trust scores. Neither the frequency of having been the victim of bullying nor pronounced tiredness however contributed at all toward the variance in any of the trust scores.

In short then, both hypotheses received some support. Within the present sample at least, trust and distrust do seem to vary somewhat as a function of nationality and gender. In addition, some of the variance in trust and distrust scores, again within the present sample, appears to be explainable in part with differences in nationality, and self-esteem but above all, emotional intelligence.

There have been no previous studies as yet linking such factors as psychosomatic health, emotional intelligence and self-esteem with trust. The current study thereby paves the way for more research of the present kind. The attained results offer an insightful contribution toward understanding the formation and operation of interpersonal trust. They show that the ability to understand others' emotions does indeed play a significant role in trusting. A higher emotional intelligence score may therefore reflect a more heightened efficiency in either "extracting" relevant cues of trustworthiness from one's environment, or alternatively in manipulating said cues. What the relative contributions of perception and cognition in this process are remains however to be established. Similarly, the exact nature of the contribution of self-esteem can only be hypothesized about at present. One possibility is that an individual with a superior regard and respect for him- or herself more readily seeks the company of others and thereby has more opportunities for exercising trust.

The failure of the present study to obtain larger group differences might be partly attributable to the chosen method and the assumptions embedded therein. The attained measurements of trust were of generalised trust in hypothetical others rather than trust in one's peers or familiar everyday authority figures (parents, teachers, etc.) for example. Then again, trust in specific individuals and in reference to specific things has thus far only been assessed with a few relational trust scales between adult couples (e.g. Larzelere & Huston, 1980; Rempel et al., 1985) and with children in kindergarten with a method of questionable validity (Rotenberg, 1984). In other words, there exists no generally accepted methodology for investigating trust in specific target individuals outside the romantic relationship context. On the other hand, knowing the infinitesimal effect sizes of the presently achieved group differences and the substantially larger contributions of emotional intelligence and

self-esteem to variance in trust scores (as compared to nationality), such group differences may well be of negligible practical significance. Even significant differences of this magnitude may in any case be mere random situational or procedural artefacts. And even if the presently uncovered group differences were replicated and made even more distinct they would still be, as such, somewhat lacking in usefulness. In other words, there is simply no way of saying how scoring higher on certain trust scales affects Finnish adolescents as opposed to British. Unfortunately, the existence of such group differences in trusting does not tell us anything of who, when, how and why do these groups trust differently.

Within psychological trust research such problems have often been cleverly circumvented by dramatically restricting the explanatory scope of the theories explaining the attained measurements. Rotter (1971) for example asserts that his scale is most accurate in highly ambiguous, novel, or unstructured situations. Johnson-George and Swap (1982) on the other hand assert that although "…real-life experiences of trust are undoubtedly associated with such feelings as love, liking, respect and mutuality" (p. 1315) trust as measured by their scale does not. What this means is that such results as have been uncovered through various measurements of trust may well have an extremely restricted range of application or that they do not actually reflect reality (as we know it). Surely no one in their right mind would admit to leading a life mainly characterised by highly ambiguous or unstructured situations.

One must therefore remember that although such instruments remain in wide use they still retain the baggage of the unresolved definition issue. In other words, they may still contain items that are not entirely justified, either in the sense of invoking nebulous concepts or of imploring about certain (supposedly crucial) behaviours from which trust is then inferred. For example, both the Trust Inventory

and the Self-report Trust Scale contain items (alongside ones that directly address trusting and not trusting) that implore about the respondents' *faith* or *belief* in the truthfulness of other people and their actions. What this implies is that trust is a cognitive construct of some sort with (maybe) added bits of emotional and moral flavour. Secondly, such items as "I make friends easily" from the Trust Inventory (Couch et al., 1996) can, in actual fact, tap into a range of things. This example could, for instance, be said to reflect trust itself (as a personality attribute) of which making friends easily is a part of, a functional consequence of trust i.e. "people trust me and thereby want to be my friends" or a behavioural antecedent to trust in that "making friends easily leads to people trusting me". Thus, it should come as no real surprise that within the present study it was precisely these rather vague items that had to be dropped from analyses. Research will always be guided by various assumptions, but what research on trust desperately needs is for these assumptions to be made explicit.

It should also be noted that only measuring people's perceptions of trust-related phenomena secures the focus of measurement entirely into the cognitive domain. Thereby, implicit in the use of questionnaires is the assumption that the focal phenomenon can be brought under the cognitive magnifying glass of accurate introspection. This limitation has been taken up -mainly by sociologists- as ammunition against the sole use of questionnaires in the measurement trust. According to Guido Möllering (2001): "[Such] positivist methods (quantitative methods and most types of survey or experiment) are limited, because they predict a singular model of human interpretation" (p. 416). This is in agreement with Lewis and Weigert's (1985) view in that psychologists try to: "…reduce trust to its cognitive content through psychometric scaling techniques or to its behavioural expressions in laboratory settings" (p. 967).

In the case of trust being the object of study, this age-old struggle between quantitative and qualitative methods is especially pertinent as it, yet again, leads us back to the difficulty of providing a clear-cut and unproblematic definition of trust. Consequently, the supremacy of one approach or methodology over another simply cannot be justified for good without proper clarification of whether one should study trust as an intra- or interpersonal or a social/system level/cybernetic phenomenon. And even if trust manifests in all of these domains then does it do so through a cognitive, emotional or behavioural medium or some combination of these? Conversely, this lack of consensus might also be seen as reason enough for employing more qualitative methods. One might contend that if even the researcher cannot put his or her finger on what trust is supposed to be then he or she should let the participant do this. But why then are the participants' own formulations of trust not being employed more frequently within trust research? The prevailing consensus seems to rest on not assigning subjective views any value whatsoever when a supposedly universal formulation will suffice. In Johnson-George and Swap's (1982) terms, the majority of research does not "…explicitly acknowledge…the situation- and target specific nature of interpersonal trust as well as the variety of connotations the word *trust* possesses" (p. 1306 original emphasis).

But how should one gauge trust if not with questionnaires? For achieving those all-important measurements, this would have to involve a marriage, of sorts, of the qualitative and quantitative approaches. The qualitative element might however mean that it might be especially difficult to stop participants from making any number of digressions into any number of things related to the operation of trust whilst not necessarily describing the "thing" that is trust. One solution for this particular hindrance would be to seek circumstances in which establishing and maintaining trust

between people was especially salient. Some success has, in fact, already been achieved in studying naturally occurring trust within an ethnographic framework. Fine and Holyfield (1996) for example, explored the functioning of a mushrooming society where initiates trust their lives in the hands of people who, to them, appear to be expert in discerning edible mushrooms from toxic ones. Equally, one might investigate how circus performers, executing elaborate death-defying stunts in teams, establish and maintain such a level of trust in their colleagues that they can perform without being in constant mortal fear. Both examples are extreme but still they are cases of noncontrived trust i.e. they do not place people in unnatural game-playing situations or reduce people's trust to its cognitive content. And yet, the unavoidable problem also faced by trust research seeking to use naturally occurring instances of trust is the necessity of inferring trust from behaviour. This is the exact same hurdle at which the non-zero sum games-paradigm fails to deliver. It can never achieve widespread acceptance by claiming that co-operative behaviour is essentially the same as trust. And yet, the problems of such an approach should not be used as vindication of questionnaires as a lesser evil.

To sum up then, because of the abundance of trust-related phenomena including (but not limited to) what it is based on and what its consequences are, research on trust has to impose some kind of a framework upon people within which they can explore the phenomenon and produce some description of its workings as it relates to them. And it is precisely because of this reason that the questionnaire approach currently remains the most potent of paradigms. Qualitative methods do however have a lot of promise for the advancement of trust research but they still require extensive development in order to catch up with the questionnaire tactic in terms of usefulness.

Future directions

The present findings should now be placed in a larger context. This could be achieved, at least in part, by employing a larger battery of trust measures and a wider variety of emotion-related scales to assess the role of affect in the negotiation of trust. Looking at the presently achieved results and particularly the fact that so many of the trust scales' items had to be dropped from analyses, it might also be constructive to try and combine pre-existing trust scales into (a) more robust one(s). Of the presently "fashionable" emotion structures, alexithymia (e.g. Bagby, Parker & Taylor, 1994) and the need for affect (e.g. Maio & Esses, 2001) might prove interesting when gauged in conjunction with trust.

In a similar vein, the role and contribution of cognition to the equation that is trust needs also to be clarified. And even though many, e.g. Lewis and Weigert (1985), are of the opinion that one should avoid seeing trust as being: "…produced by rational machinations of autonomous, calculating individuals" (p. 976) it is most curious that the relationship between intelligence and trust remains completely unexplored. The two should be studied in concert even if only to show that no connection exists between them. The development of methodology should also be continued instead of taking the (especially ecological) validity of presently available scales completely for granted. If, for example, specific others are to be used, as referents of trust, instead of hypothetical others then a method should be established for deciding upon who in each case should be included as such. Advances in theory should also help in providing a more lucid framework for conducting qualitative studies in. In other words, there are numerous ways in which psychological trust research can and should now be developed. Only the lack of imagination might stand in the way.

Conclusion

Now, the present findings should not be too difficult to summarise, whilst keeping the limitations previously mentioned in mind. It was found that emotional intelligence and, to some degree, self-esteem as well appear to play a significant role in the development of trust. This discovery should now be expanded upon with all available methods whilst ensuring and enhancing their validity. Trust is fascinating subject matter for psychological enquiry and it will surely continue to bear much enlightening fruit for years to come. For now though, what better way to conclude than with Rotter's (1980) slightly melancholy but nonetheless buoyant closing words:

> Finally, what does this mean for us as teachers, parents, educators, psychologists? We cannot control the forces at work in society by ourselves but within our own smaller circles of influence, we can model and encourage a little more trust. The consequences can be beneficial, the risks do not seem too great, and a younger generation may be a little more ready for a better world – just in case there is one coming. (p. 6)

GENERAL DISCUSSION

Now then, what have we learned through these twin endeavours of exploring trust? The two main parts of this thesis can be understood as two opposing means of trying to influence the ongoing research effort. The theoretical approach (Part I) is obviously more of a head on assault as it aims to give adequate reason for starting completely new lines of research or for at least dramatically diverting current ones. The empirical approach (Part II) on the other hand describes a more subtle way of effecting change, from the inside out as it were. Both have their possibilities and their limitations relative to one another and the field as a whole. Thus, an overview of these merits and drawbacks is at this point, most appropriate.

The principal gain of Part I is that it offers some relief from the soliptical synonym over-use involved in explaining trust *only* with reference to such terms as reliability, faith/belief(s), dependability, predictability, confidence, honesty etc. (cf. Couch & Jones, 1997; Deutsch, 1960; Goddard, Tschannen-Moran & Hoy, 2001; Larzelere & Huston, 1980; Rempel, Holmes & Zanna, 1985; Rotter, 1971, 1980). The proposed theoretical model describes trust as a contractual event with a logical sequence of constituent elements and thereby it is anchored firmly in observable reality. Merely conceptual musings on the other hand can easily falter when the explanatory power of the terminology employed is somewhat taken for granted. By doing so one may easily fail to recognize the potentially circular nature of explanations thus produced.

This is not to say that the model proposed in Part I is entirely free of ambiguity. Since it is only the primary iteration of work in progress it is necessarily a bit sketchy at parts but gladly Part II can help to make up for some of this imprecision. For example, whereas Part I is deliberately vague when it comes to the

"information" that trust is supposedly based on, Part II clearly shows that at least emotional intelligence and self-esteem are part of this structure (or process). They also highlight the significantly greater contribution of inter- versus intrapersonal factors to trust. On the other hand, Part I places the attained empirical results of part II in a larger context by showing that they only pertain to specific segments of the equation that is trust. This is true both in terms of the history of trust research as well as the proposed model describing the trust event. Firstly, the achieved results belong to the cognitive/ introspective listing-reasons-for-trusting-in-a-hypothetical-situation type of trust research. Thereby, they add at least emotional intelligence to the hypothetical set of variables to be considered before the start of the actual trust condition (see Figure 1, p. 24). Secondly, they add to the complexity of things since it should *not* be assumed at this stage that emotional intelligence and self-esteem do not affect the whole process of negotiating the trust contract. Part II therefore points toward the potential value of exploring the relative contributions of cognition and affect to trust further.

Hopefully then, this portrayal of two separately conducted enquiries has also underscored the importance of integrating theory with practice, especially within psychological trust measurement. Variety in approaches is of course equally necessary in this field, as in any other, but only when it is justified. Diversification for its own sake only leads to more confusion, which has already been noted and addressed by several academics interested in trust (see Part I). Thus, although integration and synthesis of theory and practice may be the more difficult and controversial phases of research, when it comes to trust, they should be eagerly embraced and implemented with gusto.

PERSONAL REFLECTIONS CONCERNING THE MSC

Now that the reader has been inundated with all things trust-related -both in theory as well as practice- it is time to ask the simplest of questions: what does it all mean then? First of all, the MSc has meant that for a whole year I have not had to think ahead about what to do next. But still, I would not think that 'liberating' was the best word for describing the endless hours of working alone, that this year involved. The surprisingly few lectures offered only occasional momentary relief from the reading and writing, reading and writing... Thus, what the exact contribution of the actual course to my future career -as opposed to solitary study- will be remains to be seen. Gladly, through my collaboration with Dr Marja Kokkonen I have now secured myself some actual paid work of a similar kind. As to the scientific value of the present work is concerned I am now slightly sceptical. It has been mostly my own persistence in the fact that I have been on the trail of something extremely important all along which has at times perhaps lead me to forget that this is still only an MSc thesis. But indeed, if my work does gather interest beyond merely achieving a passing grade from the powers that be then that is just great. Here, I was actually going to launch into the politics of the how and why we do science as we do it and maybe we should do it differently, but after all the work that has gone into the thesis proper I seem to be somewhat lacking in enthusiasm. Furthermore, this would not be a really effective forum for heated commentary about wasting the taxpayers' money on useless research etc. anyway. I think my take-home message would be that the social nature and context of research should be taken into account more. This should be done both in terms of less isolation when studying as well as in deciding upon what kinds of research can actually bear valuable fruit even if only conducted by a student on an MSc thesis level.

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NOTES

[1] Although one can easily imagine diverse arrangements regarding the time of resolution being made either totally explicit or only implied, the trustee has to have some conception of the time frame involved. This can vary between say: "I will return this book in two weeks" and "I will return this book when I have read it".

[2] It should be noted that the term 'information', as used in this context, should be understood rather loosely. The intention is by no means to reduce, for example, emotions and self-appraisals to purely conscious and cognitively manipulable entities.