

Trust building actions: a relational signalling approach

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Abstract

The purpose of this study is to investigate what actions build trust, why and how. We take a ‘relational signalling’ approach, according to which people view the world and chose actions on the basis of alternative mental frames. People interpret actions as relational signals, on the basis of which they attribute a mental frame to others, and select their own frame as a basis for action. We distinguish between an other-directed ‘solidarity’ frame and a self-interested frame. A trustful dyadic relationship is stable if both sides are in a stable solidarity frame. We derive two main types of trust building actions. The first type is ‘express solidarity’, demonstrating that ego is in a solidarity frame. The second type is ‘stimulate solidarity’, aimed at triggering or maintaining the solidarity frame of alter. Both have several subtypes, yielding a total of five classes of actions. 21 possible actions are collected from the literature. On the basis of a survey among clients of an international firm that provides training and consulting services, considerable support for the five classes is found. We discuss the implications for research and practice.

Key words: Relational signals, mental framing, trust, trust building actions.

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Biography Frédérique Six

Frédérique Six is lecturer of governance and organization at VU Amsterdam and has been a management consultant for some 15 years with McKinsey & Company and KPMG. Her research interests centre around trust and integrity in the public and private sector. She focuses on interpersonal work relationships and relationships between organizations and individual stakeholders, such as citizens or clients; the influence of institutional arrangements on those relationships; and the dynamics of trust building within those relationships. Recent books include *The trouble with trust* (Edward Elgar 2005) and *The trust process in organizations* (Edward Elgar 2003; with Bart Nooteboom).

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Introduction

Many people – scholars and practitioners alike – have argued that trust is important, because it enhances and enables successful cooperation. A literature that is too large to review here is dedicated to theoretical analysis and empirical measurement of antecedents and consequences of trust (for a survey and attempt at synthesis, see Nooteboom 2002). While some work has been done on the underlying process in which trust is built up or broken down, this is still a relatively neglected area.

Shapiro (1987: 625) proposed that: ‘Typically social exchange relations evolve in a slow process, starting with minor transactions in which little trust is required because little risk is involved and in which partners can prove their trustworthiness, enabling them to expand their relation and engage in major transactions’. This view was later repeated and extended by many others (for example, Ring and van de Ven 1992, 1994). McAllister (1995) proposed two stages of trust development: cognition- or knowledge-based trust followed by affect-based trust. As noted earlier by Simmel (1950), as a relationship develops it acquires a characteristic of faithfulness that may stabilize the relationship and may transcend the reasons why it was first started. Lewicki and Bunker (1996) proposed three stages of calculus based, knowledge based and identification based trust. First, trust is based on the calculation of mutual advantage. Then, empathy may develop, by which the people involved are able to put themselves into each others’ shoes, enabling them to understand each others’ weaknesses and fears, as a basis for taking actions so as to prevent breakdown. Next, empathy may develop into identification, where people not only understand how the other thinks, but share his ways of thought, and even, to some extent, his goals. As noted earlier by Luhmann (1979), when people start to cooperate, they get the chance to adopt each other’s perspectives. In identification, the relationship increasingly assumes intrinsic value, next to its instrumental value that earlier dominated the relationship, and itself becomes part of goals. These insights are very valuable, but there is little research that explains how these processes take place, in terms of specific actions, and how people interpret actions and arrive at conclusions and actions.

In empirical research, Zand (1972, 1997) showed the importance of actions in building trust. Clearly, trust is related to vulnerability to other people’s actions, so that, naturally, trust depends on observed actions. By acting trustingly, the individual makes himself vulnerable to abuse by the other individual *and* communicates his intention to trust and his own trustworthiness. Therefore, studying trust building actions is relevant for improving our theoretical understanding of how trust works. It also has important practical implications, because of the direct role that these actions play in actually building trust and, thus, realizing successful cooperation. So far, research on trust building actions has been inductive, identifying actions that in practice were found to build trust (for example, Deutsch 1973; Gabarro 1978; Johnson and Johnson 1995; Ryan and Oestreich 1998; Zand 1972, 1997). There is little theoretical research that provides explanations of why and how these actions build trust. This study aims to fill that gap.

The study focuses on interpersonal trust building in work relations within organizations, because this is the most basic form of trust building and thus enables the study of the basic dynamics before going to aggregate behaviour in inter-

organizational relationships. The theoretical framework used is relational signalling theory (Lindenberg 1997, 1998, 2000; Wittek 1999), because the concept of relational signals has deep implications for a theory of interpersonal trust building (Nooteboom and Six 2003; Six 2005). People will look for signs in the behaviour of the other individual whether he is still committed to the relationship (the relational signal). Positive relational signals indicate an interest to maintain a mutually rewarding relationship (Wittek 1999), which is the cornerstone of trust (Hardin 2002). We develop a model with two main categories of trust building actions, with five sub-categories, and test these empirically. This study builds on research conducted by Six (2005) within two professional services firms, in which she found support for the hypothesis predicting that the more frequently people perform the proposed actions, the higher trust levels become.

This article proceeds as follows. The first part highlights some key relevant features of trust, gives a brief overview of relational signalling theory and how this theory can provide the foundations for a theory of interpersonal trust building, and derives a typology of trust building actions. The second part presents the empirical study with the overall results; the detailed results of the analyses can be found in the Appendix. In the third and final part we discuss the implications for theory and practice.

Trust and relational signalling

Trust

The notion of trust has many complexities, as recognized in the voluminous literature on the subject. This section summarizes the most relevant aspects, to be used in the derivation of trust building actions. To begin with, trust is a four-place predicate: a trustor (1) trusts a trustee (2; an individual, organization or institution), in some respect of behaviour (3; competence, resources, intentions), depending on circumstances (4) (Nooteboom, 2002). The distinction between trustor and trustee highlights the essentially interactive nature of trust. The distinction between people and organizations as trustors and trustees was discussed by Zaheer, McEvily & Perrone (1998). The present paper analyses interpersonal trust. The fourth dimension of trust, its circumstances, indicates that trust has its limits. This point will be analysed later.

The third dimension, the distinction between trust in competence or resources and trust in intentions, recognized by many, is especially important for the present paper, because of the *causal ambiguity* (Nelson and Winter 1982: 123; Nooteboom 2002), that it yields. Expectations may be disappointed due to a variety of causes, such as mishaps, a gap in competence, lack of commitment or outright opportunism. When an expectation is disappointed, it is not directly clear which cause is at work. There is room for misinterpretation of events that can have tragic consequences. A relationship may break down because ego infers opportunism of alter while in fact the cause of disappointment was a mishap, or a gap in competence. How such mistaken inference comes about is crucial for understanding breakdown and repair of relationships. A key problem here is that especially an opportunist will claim an accident, rather than admitting opportunism. Even when in fact the problem was a gap in competence, alter is tempted not to reveal that problem, but when disappointment of expectations later emerges ego will tend not to believe the belated excuse of incompetence, and is

tempted to infer opportunism, because if incompetence were the cause, why was it not reported earlier, when the problem might have still been redressed?

This indicates the crucial importance for trust of honesty and openness, as recognized in the trust literature (Zand 1972). This is related to the notion of 'voice' versus 'exit' in relationships. In exit one walks out or sells out in case of dissatisfaction, while in voice one indicates one's discontent with the aim to 'work things out' (Hirschman 1970; Helper 1990). Now, exit and voice are not necessarily mutually exclusive, in the sense that the one implies absence of the other. If voice does not work one may have to fall back on exit, and this eventuality, though generally not voiced, lurks in the background. This principle of 'lurking in the background' is an important one and will re-appear in the analysis of mental frames and switching between them.

Another crucial point that has been recognized in the trust literature is that trustworthiness may be based on self-interest, but also on benevolence, solidarity or loyalty. Transaction cost economics appears to deny the latter possibility (Williamson 1993), but it is widely recognized elsewhere (in sociology and the management literature). This is related to two definitions of trust. According to one definition, trust entails dependence of the trustor on possibly harmful actions of the trustee, with the expectation that, for whatever reason, such harm will not be done. The reasons for this expectation may include control, in which the trustee refrains from opportunism either because he has no opportunity for it, due to contractual or hierarchical constraints, or no incentives for it, since he is dependent on the trustor or wishes to protect his reputation. For this general notion of trust, which includes safeguards on the basis of control, Nooteboom (2002) proposed not to use the term 'trust' but the more general term of 'reliance'. Reasons for trustworthiness may also include motives that go beyond (narrow) self-interest and control, such as the wish to behave appropriately, according to social or moral norms or values, or feelings of friendship, solidarity or identification with the trustor (McAllister 1995; Lewicki and Bunker 1996). In the literature, this has been called 'benevolence' or 'goodwill trust' (see e.g. Lane and Bachmann 1998). That is what people mostly mean by the term 'trust'. In trust, one expects people to conform to expectations even if they have both the opportunity and incentives for opportunism (cf. Bradach and Eccles 1984; Chiles and McMackin 1996). This terminology of reliance and trust is adopted here.

As indicated earlier, a fourth dimension of trust is the circumstances under which it arises. Trust should not be, and mostly is not in fact, blind in the sense of being unconditional. While counter to Williamson (1993) trust can go beyond calculative self-interest, it does have its limits, depending on the trustee's resistance to temptations and pressures towards opportunism, which depend on situational contingencies of 'golden opportunities' and threat to survival (cf. Pettit 1995). This indicates another important contingency for the breakdown of relationships: perceived threats to survival due to, for example, threat of dismissal or personal bankruptcy. In our analysis of mental framing the urge of survival will clearly play a prominent role, as a possible destroyer of trust.

Deutsch (1973) argued the importance of self-confidence for trust. In view of causal ambiguity and possible threat to survival, lack of self-confidence can make people prone to infer and expect the worst, attributing opportunism where there is none, and reverting to a defensive frame of self-preservation where there is, in fact, little threat.

Yet another complexity that has emerged from the trust literature is that of rational, reflexive and emotional, automatic response. According to Herbert Simon (1983),

bounded rationality makes it rational to employ behavioural routines, so that scarce capacity can be saved for rational evaluation of unfamiliar situations. He recognized that one may need emotions, such as fear, to break out of routinized behaviour where that turns out to be inappropriate. In sum, emotions may generate impulsive behaviour and they may trigger a break of routinized behaviour. A question then is whether the latter automatically triggers an automatic response, or whether an emotionally triggered break with routine can lead on to a rational deliberation of response. For that, the emotion would have to be somehow neutralized, controlled, supplemented, or transformed for the sake of deliberation. This is of particular importance in view of the causal ambiguity discussed before. If a relationship has been going well for some time, trust and trustworthiness may be taken for granted, in routinized behaviour. A jolt of possible danger from exceptional events may be needed to break out of the routine, but in view of the causal ambiguity of what went wrong, one may need to give the trustee the benefit of the doubt, allowing for mishaps or lack of competence, rather than jumping to the conclusion of opportunism. When does this happen and when does it not? Relational signals, we argue, play a key role.

Relational signalling

In constructing our typology of trust building actions, we build on Lindenberg's relational signalling theory (1997, 1998; see also Mühlau 2000 and Wittek 1999). Two basic assumptions are made in relational signalling. First, while human behaviour is goal directed, rationality is strongly bounded by the fact that at any moment in time the various potential goals are not equally in consideration. The second basic assumption is that human behaviour is context dependent and guided by the social context in which the individual operates. An individual is generally able to pursue one goal in any given action situation, bringing this main goal into the foreground of the individual's attention. This main goal structures ('frames') the definition of the situation, while other potential goals are in the background and have an indirect effect as they only affect the stability of the main goal and the strength with which it guides evaluation and choice processes. This view is consistent with Polanyi's (1962) distinction between 'focal' awareness (foreground) and 'subsidiary' awareness (background). The frame with which an individual approaches a particular situation consists of the dominant goal, selective attention, and a repertoire of actions that enact the frame, depending on situational conditions. What goal is in the foreground depends on context-specific events, whose perception may trigger a frame switch, often accompanied by emotions that call background goals from subsidiary into focal awareness. Here, we focus on events in the form of 'relational signals'. In connection with the trust literature, note the relation to the attitudes of 'voice' and 'exit', with exit 'lurking in the background' for the eventuality that voice should fail. Also note the connection with Simon's argument for routinized, unreflexive behaviour that may require an emotional jolt to enter the focus of attention and deliberation.

Lindenberg (2003) identified three master frames: the hedonic frame (with the main goal to feel good or better right now), the gain frame (with the main goal to improve or guard one's resources) and the normative frame (with the main goal to act appropriately). The first two of these master frames can be called self-interested, since ego is only concerned about his or her own interest, while the third master frame is other-directed as ego will also show concern for alter's interests. For the purpose of this study it suffices to recognize the distinction between the self-interested versus the

other-directed (solidarity) frame; and that without regularly affirming the solidarity frame, its salience will decay and a self-interested goal may become foreground goal and lead to a frame switch. Note, furthermore, that the basic distinction between other-directed, solidarity frames and self-interested frames corresponds well with the basic split in the trust literature, between self-interested motives for reliability and other-directed motives of 'benevolence' or 'goodwill' that go beyond self-interest.

Lindenberg argued that, *a priori*, the self-interested frame would appear more salient than the solidarity frame. As a consequence, individuals who interact with each other appear to be justified in suspecting that the solidarity frame will give way to the self-interested frame. Note the connection with the trust literature, with its recognition of limits to trustworthiness, due to temptations and pressures of survival, in competition, that may overwhelm desires or inclinations towards benevolence and solidarity. People will therefore look for signs in the behaviour of the other individual with regard to the stability of the solidarity frame, in other words, to what degree the other individual is still interested in maintaining the relationship in the future. Relational signals are 'behavioural clues that allow us to make inferences about other people's interest in maintaining a mutually rewarding social relationship with us' (Wittek 1999: 8). A positive relational signal is any behaviour by a first individual that contributes to the well-being of the second individual, usually entails a sacrifice from the first individual and is perceived by the second individual as an indication of the stability of the first individual's solidarity frame. A negative relational signal is any behaviour by a first individual that decreases the well-being of the second individual and who perceives it as an indication of the decay of the first individual's solidarity frame.

The notion of a relational signal reflects the insight that much of human behaviour, and particularly interpersonal interaction and communication, is not only about the exchange of information, but also about defining the nature of the relationship between the individuals involved (Dillard et al. 1996; Wittek 1999). An important point to make is that which types of actions do or do not constitute relational signals is in the eye of the beholder (Wittek 1999) and the same holds for the sign of the relational signal: whether it is perceived as positive or negative. When signals are important in the interaction between two or more individuals, they predominantly include 'expressions given off', which are seemingly involuntary aspects like blushing (Goffman 1959). These are less open to manipulation (Frank 1988; Tannen 1990). This may be important as individuals who have no relational interest can and probably will exploit relational signalling (Deutsch 1973). Luckily, it is difficult for most people to pretend they are in a frame that they are not actually in, as they will nearly always give off signals to the contrary.

Frame attribution and frame selection

Inspired by Zand (1972, 1997) and Gabarro (1978) we conceptualise interpersonal trust building in a work relationship as an interactive process in which two individuals learn about each other's trustworthiness in different situations. This implies, among others, that an individual is simultaneously trustor and trustee. Largely following the growing consensus among trust researchers (among others, Hosmer 1995; Lane; 1998, Mayer et al. 1995; Rousseau et al. 1998), we define trust as a psychological state comprising the intention to accept vulnerability to the actions of another party based upon the expectation that the other will perform a particular action important to you. Since trust is related to the positive expectation that it will not be taken advantage of,

it requires the absence of opportunistic behaviour by the trustee so that the trustor can make himself vulnerable to the action(s) of the trustee. For trust to be possible, the trustor needs to believe that the trustee wants to continue the relationship into the future (Hardin 2002). This requires a stable solidarity frame since opportunistic behaviour is highly likely in the other – self-interested - master frame. Thus, for interpersonal trust to be built in work relationships, both individuals need to have their actions guided by a stable solidarity frame; and one important way to stabilize solidarity frames is for both individuals regularly to perform actions conveying positive relational signals. Hence, the actual behaviour of the two individuals involved in a work relationship is crucial to whether trust can be built within that relationship or not. A trust-enhancing organizational context stimulates and guides behaviour that will help build trust, but cannot guarantee such behaviour. The precarious nature of the solidarity frame implies that positive relational signals need to be sent regularly. Trust needs regular nurturing and will become depleted if not (Pettit 1995; Powell 1996).

In connection with the trust literature, note the problem here of ‘causal ambiguity’, indicated earlier. Expectations may be disappointed as a result of opportunistic conduct, but also as a result of accident, mistake or limits of competence. How does one know how to interpret events? Interpretation depends on what actions, precisely were taken, and how people are disposed to interpret actions.

If mental frames serve to both ‘define a situation’ and to guide actions, how are these two combined? As noted by Luhmann (1995), in interaction people start building expectations of each others’ expectations, on the basis of observed actions. According to the notion of relational signalling (Lindenberg 2000, 2003; Wittek 1999) the actions that a trustee undertakes, triggered by a mental frame, constitute relational signals that are observed and interpreted by the trustor.

Here, the following proposal is made. The trustee selects a frame, which generates actions that function as signals to the trustor, who on the basis of these signals attributes a salient frame to the trustee and selects a frame for his own response, which generates actions taken as signals by the trustee, who attributes a frame to the trustor, and selects his own frame. This yields a cycle of selection and attribution, in ongoing interaction, as illustrated in Figure 1.

Figure 1 about here

Note that while a trustor (trustee) may select the same frame as the one attributed to the trustee (trustor), in what amounts to a ‘tit-for-tat response’, this is not necessarily the case. One may persevere in acting benevolently in the face of opportunism, and one may opportunistically exploit the benevolent.

A central question now is how to categorize relational signals in actions, as a basis for empirical work on their effects on trust. The foregoing analysis enables the derivation of a typology of trust-building actions, that is, actions that establish, maintain or repair the attribution and selection of the solidarity frame. We distinguish between two main classes of action. First, actions that stimulate alter to attribute the solidarity frame to ego (class A), and actions that stimulate alter more directly to select the solidarity frame rather than the self-interested frame (class S).

Each of these main classes can be subdivided into subclasses, as follows. For attribution of the solidarity frame, there are actions that directly express that frame in

actions towards the other (A1) and actions that invite influence from the other (A2). A third subtype of actions (A3) is aimed at preventing misattribution of a self-interested frame that might arise from causal ambiguity, as discussed earlier.

Concerning the stimulation of the other to select the solidarity frame (S), it already is a powerful stimulus if alter attributes the solidarity frame to ego, because an important source of fear is eliminated, and an appeal is made to the instinct of reciprocity.

Selection of the solidarity frame is stimulated more directly by actions that prevent disappointment with that frame (S1). Following Deutsch's (1973) analysis of the importance of self-confidence, in avoiding undue fear and feelings of risk we also adopt a second subclass (S2) of actions that bolster alter's self-confidence (if needed).

Trust building actions

For filling out the theoretically deduced classes of action with specific actions, we adopt actions that have been included in earlier research. We collect those actions from the literature, and assign them to the classes we hypothesized. The results are given in Table 1, with between brackets the sources. The allocation of actions to classes was usually, but not always, straightforward. In two cases, in particular, we were uncertain whether actions (2 and 5) should be assigned to class A1 or A2.

INSERT TABLE 1 ABOUT HERE

Concerning the actions for attribution of the solidarity frame (A), the first batch of five actions (A1) directly enact the solidarity frame, in showing and implementing care for alter. The second batch (A2) of six actions turn things around, and allow alter to influence ego. The importance of such opening up to influence from the other was pointed out earlier by Zand (1972, 1997), Johnson and Johnson, (1995) and Ryan and Oestreich (1998). It allows the other to feel less vulnerable, in getting the opportunity to influence his destiny. Also, a powerful way to show your own trustworthiness is by you trusting the other, and thus making yourself vulnerable to the other's actions (Deutsch 1973; Kipnis 1996; Zand 1972, 1997). The third batch implements openness to prevent causal ambiguity. The three batches of actions are highly complementary, and can well be taken together, in mutual support.

Note that several of these actions may be seen as constituting a specification of the older notion of 'voice' (Hirschman 1970). The importance of being open and accepting influence from alter was argued before by Zand (1972), in particular. Note also that these actions can be directed at the partner in a relationship, but may also be directed at others, in building a reputation of benevolence and openness.

Concerning the actions to stimulate alter's adoption of the solidarity frame (S), the first batch (S1) of four actions prevents avoidable disappointment with the solidarity frame, on the basis of realistic and well monitored expectations. Earlier, Gabarro (1978) and Johnson and Johnson (1995) indicated the importance of managing expectations. As indicated, the second batch (S2) of three actions for bolstering self-confidence follows Deutsch (1973). These actions yield a menu of options, which need not all to be taken simultaneously.

In the second part of this article, the trust building actions are put to an empirical test, which consists of two parts. The first question is whether they are indeed positively and significantly correlated with trust. The second question is whether the

actions indeed group themselves into the hypothesized classes. In the third part we discuss the implications for a theory of trust building.

Empirical test

Methodology

A questionnaire survey was used, in which respondents were asked how often each of the 21 actions from Table 1 occurred within their work unit (on a 5-point scale ranging from 1 = never to 5 = always); and how high they rated the level of trust within their work unit (on a 10-point scale ranging from 1 = very low to 10 = very high). By asking how often each action occurred within the work unit, we were collecting perceptions about these actions from the 'receiver-side' (the perceptions of the person observing the actions), rather than perceptions or intentions from the 'sender-side' (the intentions of the person performing the actions). The latter would have been the case if we had asked how often the respondent him- or herself performed each action.

The survey was distributed to more than thousand managers in Europe, in cooperation with Krauthammer International and EIM Stratus. Krauthammer is an international firm that offers management- and sales training, and EIM is the Dutch research institute for small and medium sized business. These two organizations conduct short surveys three to four times a year on issues relevant to Krauthammer's clients, which are middle and top managers in a wide range of organizations. They use two ways of distributing forms, (1) online to a database with 891 (former) clients who have indicated an interest in participating in these regular surveys (response rate 28.3%); (2) in paper form to Krauthammer's training participants handed out by the training manager during training sessions. Whenever a training manager decided to hand out the survey to participants during the training, in principle all completed the survey, thus achieving a response rate of at least 95%. Not all training managers distributed the survey to participants, but that does not create a possible non-response bias. A possible non-response bias could have occurred in the online approach, in the sense that only those interested in the topic of trust would have made the effort to complete the survey. However, we argue this is no different to other surveys sent out by post or e-mail. The data were collected during July-September 2003.

A total of 449 usable responses came from managers in organizations across 14 countries; 45% were online response and 55% were in paper form. Of these 449 responses, 391 completed all 21 questions about the trust building actions. 36% of respondents were located in France, 22% in Switzerland, 21% in the Netherlands and 5% in Spain. The distribution of size of work unit was very even: 27% had less than ten people in their unit, 27% had between 10 and 24 people, 22% had between 25 and 100 and 24% had more than 100 people in their unit. Also, in terms of years work experience of respondent an even distribution was obtained.

We analysed the data in several ways for the investigation of the internal structure of the 21 actions: analysing the correlations between actions and trust level, calculating the reliability and internal consistency of the actions allocated to the five hypothesised categories and conducting confirmatory factor analyses on those categories. A detailed description of the results of the reliability, internal consistency

and confirmatory factor analyses is provided in the Appendix. Below we report the main findings.

Results

The list of trust building actions assumes that these actions help build trust. By examining the correlations between the occurrence of each action in the work unit and the level of trust within the work unit, this assertion was tested. All but two of the 21 actions are significantly and positively correlated to trust level at $p < .05$ (see Table 2). Two actions are not significantly correlated with trust level, ‘make yourself dependent’ and ‘seek counsel’.

INSERT TABLE 2 ABOUT HERE

The reliability and internal consistency analysis showed good results, particularly after deleting two items from class A2, ‘make dependent’ and ‘give responsibility’ (see Appendix). The standardized Cronbach’s α values of the proposed categories were all above the minimum criterion of 0.60 for reliable scales, and two of the categories (A1, S1) were above the preferred criterion of 0.70.

The results of the confirmatory factor analysis provide support for the five proposed classes with all 21 items (Figure 2). The rival models, suggesting no relation between the items, only one factor for all the items, and the two main categories respectively, all show significantly less fit compared to the five-factor model (21 items). The model shows good fit on all but one of the fit indices. The five proposed classes, enact solidarity frame ego (A1), accept influence from alter (A2), prevent misattribution of self-interested frame (A3), prevent disappointments (S1) and bolster self-confidence alter (S2), are shown to be distinct, but correlated constructs. All parameters estimates are significant and, apart from ‘make dependent’ and ‘give responsibility’, reasonable amounts of variance are explained.

INSERT FIGURE 2 ABOUT HERE

Conclusions and further research

The purpose of this study was to investigate what actions build trust, why and how. We used a perspective of mental framing, where a trusting and trust-enhancing frame of ‘acting appropriately’, in a ‘solidarity frame’, may have to compete with a self-interested frame oriented at self-preservation, at ‘guarding one’s resources’, and at instant gratification. Trust-building actions then are seen as actions that demonstrate and enhance the frame of acting appropriately, in attribution and selection of that frame. Here, we focused on relational signals, that is, actions that signal stability of the solidarity frame. We constructed two main categories with five subclasses of trust building actions, based on the type of relational signal, for 21 trust building actions found in the literature. The proposed model was tested on the basis of 391 responses to a questionnaire survey among managers from 14 countries.

Overall, the results confirm the hypothesized classes of trust-building actions. The first research question was whether the actions identified did indeed correlate

positively and significantly with trust. 19 of the 21 actions did. One of the items that did not, 'make dependent', proved problematic in other analyses as well. The second research question was whether the actions indeed grouped themselves as hypothesized. The results of the confirmatory factor analysis provided support for the five proposed classes. The rival models, suggesting no relation between the items, only one factor for all the items, and the two main categories respectively, all showed significantly less fit compared to the five-factor model (21 items). The model showed good fit on all but one of the fit indices. The five proposed classes, enact solidarity frame ego (A1), accept influence from alter (A2), prevent misattribution of self-interested frame (A3), prevent disappointments (S1) and bolster self-confidence alter (S2), were shown to be distinct, but correlated constructs. Thus, overall considerable support was found for a five-factor model, along the lines hypothesized.

Several limitations to the study can be identified. First, it may be that not all effective and possible trust building actions have been identified. Further research may identify further actions. It is expected that most newly identified actions will fit the five proposed classes, but it is not inconceivable that some may not fit. Any new class must pass the test of forming a new way of conveying positive relational signals. Future, more detailed, analysis may include situational conditions that may modify the signaling function of actions. For example, under some conditions a public compliment, or an offer of help, may be seen as patronizing, hypocritical or manipulative, and have an adverse effect on perceived trustworthiness. Under some conditions openness concerning motives may be perceived as threatening. Seeking counsel and help from others may be perceived as a sign of weakness rather than as a signal of accepting influence.

Further research is suggested on three fronts. First, research is suggested to investigate the impact of situational conditions, such as organizational culture, national culture, gender, years in the work unit, type of education, level of interpersonal skills, type of job, type of industry, and so on. Second, research is suggested in which respondents are asked to indicate how often a particular person performs each action, rather than the question used in this study inquiring about behaviour in general. This may indicate a potential difference in occurrence of the relational signal between actions such as 'seek counsel' and 'accept counsel'. Also, respondents may be asked more explicitly about the nature and strength of the relational signal in each action. Finally, further research is suggested regarding a possible sequence and relative impact of the classes of trust building actions. For example, do actions that prevent misattribution of self-interested frame (A3) affect level of trust more than actions in which Ego accepts influence of Alter (A2)? Or, which class of actions occurs most frequently and why? Overall, in spite of its limitations, the main conclusion of this study is that relational signalling theory helps to classify trust building actions and to understand why and how they work. Thus, this study provides further support for a theory of interpersonal trust building based on relational signalling.

The study also has important practical implications. If individuals want to improve the level of trust in their work relations, or organizations want to stimulate higher trust in their intra- and interorganizational relations, raising awareness of the importance of regularly performing trust building actions is a crucial first step. Improving interpersonal communications skills increases the likelihood that the positive relational signals are perceived as intended and enhances the chance that the more risky actions, with the stronger relational signals, are performed more often. The actions that were found to operate, and the classes in which they were found to

cluster, suggest instruments for management. To what extent do organizational culture and procedures enable and support such trust-building actions? Six (2005) showed that organizational culture plays an important role in furthering these actions.

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Table 1 A classification of trust building actions

Express solidarity frame ego

A1. Enact solidarity frame:

1. Show care and concern for the other person (Deutsch, 1973)
2. Recognize the legitimacy of the each other's interests (Deutsch, 1973)*
3. Give help and assistance (Deutsch, 1973; Johnson & Johnson, 1995; Ryan & Oestreich, 1998)
4. Take responsibility (don't pass the blame) (Ryan & Oestreich, 1998)
5. Show a bias to see the other person's actions as well intended (Deutsch, 1973)*

A2. Accept influence from the other:

6. Initiate and accept changes to your decisions (Zand, 1972, 1997; Johnson & Johnson, 1995; Ryan & Oestreich, 1998)
7. Seek the counsel of others (Zand, 1972, 1997; Gabarro, 1978; Ryan & Oestreich, 1998)
8. Accept and value the counsel of others (Zand, 1972, 1997; Gabarro, 1978; Ryan & Oestreich, 1998)
9. Receive help and assistance (Deutsch, 1973; Johnson & Johnson, 1995; Ryan & Oestreich, 1998)
10. Make yourself dependent on the other person's actions (Zand, 1972, 1997)
11. Give responsibility to the other person (Zand, 1972, 1997; Deutsch, 1973)

A3. Prevent misattribution of a self-interested frame due to causal ambiguity:

12. Be open and direct about task problems (Deutsch, 1973; Gabarro, 1978; Ghoshal & Bartlett, 1997)
13. Be honest and open about your motives (Deering & Murphy, 1998)
14. Disclose information in an accurate and timely fashion (Zand, 1972, 1997; Deutsch, 1973; Ryan & Oestreich, 1998; Ellinor & Gerard, 1998)

S. Stimulate solidarity frame alter

S1. For maintenance of the solidarity frame, prevent disappointments:

15. Clarify general expectations early on in a new relationship (Gabarro, 1978; Johnson & Johnson, 1995)
16. Explore specific expectations in detail as the relationship develops (Gabarro, 1978; Johnson & Johnson, 1995)
17. Surface and settle differences in expectations (Gabarro, 1978)
18. Process and evaluate how effectively you are working together at regular intervals (Johnson & Johnson, 1995)

S2. Bolster self-confidence of alter (if needed):

19. Give positive feedback (compliment) in a private meeting (Zand, 1972, 1997; Johnson & Johnson, 1995; Ryan & Oestreich, 1998)
20. Give compliment in a public meeting (Zand, 1972, 1997; Johnson & Johnson, 1995; Ryan & Oestreich, 1998; Six, 2005)
21. Give negative feedback in a constructive manner (Zand, 1972, 1997; Johnson & Johnson, 1995; Ryan & Oestreich, 1998)

* For these items we have some doubt concerning classification. They might also be attributable to A2

Table 2: Mean, standard deviation and correlation with trust level

Action	Mean	SD	Correlation with trust level
Show care and concern for the other person	3.88	0.79	.223**
Recognize the legitimacy of each other's interests	3.74	0.82	.313**
Give help and assistance	4.00	0.72	.197**
Take responsibility (don't pass the blame)	3.91	0.84	.225**
Show a bias to see the other person's actions as well intended	3.52	0.82	.229**
Initiate and accept changes to your decisions	3.57	0.67	.202**
Seek the counsel of others	3.76	0.68	.044
Accept and value counsel of others	3.82	0.61	.202**
Receive help and assistance	3.73	0.73	.216**
Make yourself dependent on the other person's actions	3.24	0.86	.044
Give responsibility to the other person	3.72	0.75	.118*
Be open and direct about task problems	3.76	0.82	.352**
Be honest and open about your motives	3.82	0.78	.272**
Disclose information in an accurate and timely fashion	3.83	0.68	.271**
Clarify general expectations early on in a new relationship	3.64	0.86	.241**
Explore specific expectations in detail as the relationship develops	3.47	0.81	.236**
Surface and settle differences in expectations	3.38	0.82	.250**
Process and evaluate how effectively you are working together at regular intervals	3.29	0.92	.217**
Give positive feedback (=compliment) in a private meeting	3.41	0.82	.307**
Give compliment in a public meeting	3.06	0.88	.255**
Give negative feedback in a constructive manner	3.12	0.81	.204**

*p < .05, **p < .001. N = 391.

Figure 1: Cycles of frame selection and attribution

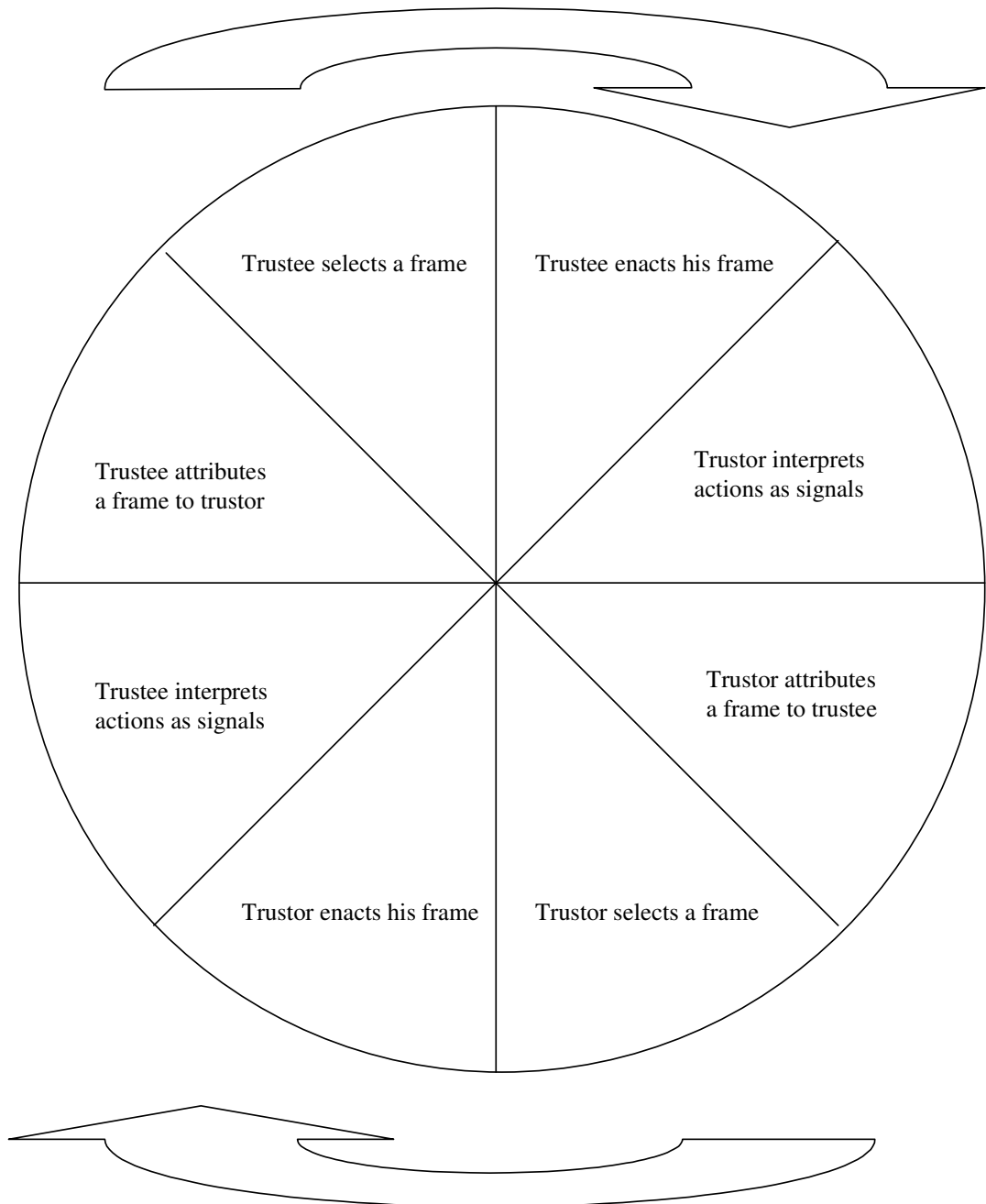
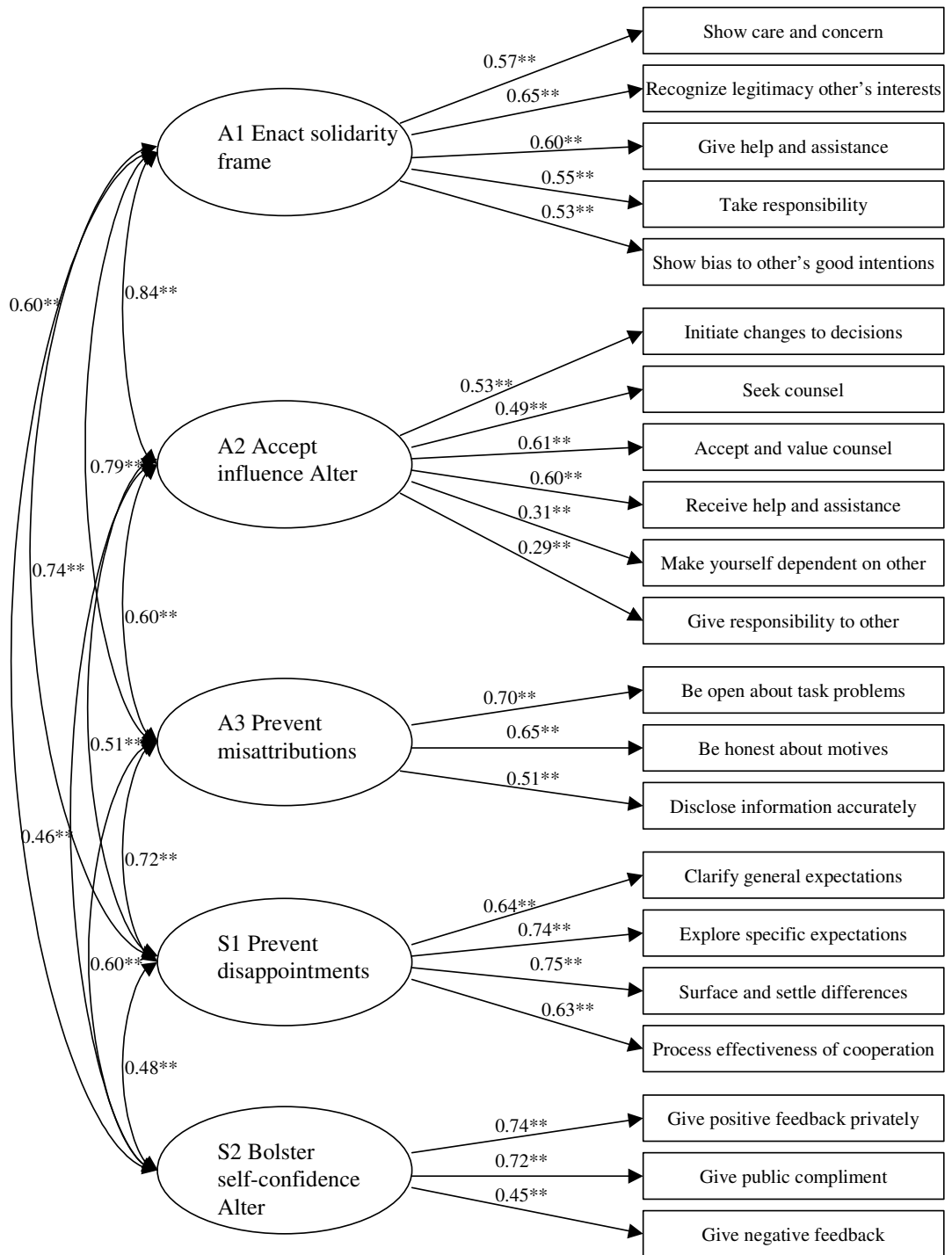


Figure 2: Five-factor model with 21 items



Appendix

In this Appendix we present the detailed results of the analyses that were performed to test whether the actions group themselves into the hypothesized classes.

Tests of reliability and internal consistency. The results of tests of the reliability and the internal consistency of the proposed classes are given in Table A1. The standardized Cronbach's α values of the proposed categories were all above the minimum criterion of 0.60 for reliable scales, and two of the categories were above the preferred criterion of 0.70. Relying solely on Cronbach's α values as a measure of internal consistency has two problems (Cortina, 1993). First, α is partially dependent on the number of items in a scale and second a scale with more than one dimension can have a reasonable α . This is the case in this study as we investigate two main categories with five classes. Therefore, inter-item correlations - correlations between the items within each scale - and item-total correlations - correlations between the items and the scale - are also investigated. Inter-item correlations are generally considered appropriate when higher than 0.30 (Den Hartog et al. 1997). For four of the classes this criterion is met, but not for the class A2 (Accept influence from Alter). When item-total correlations are above 0.20 this is considered as a good indication of internal consistency (Den Hartog et al. 1997). In all five categories all item-total correlations meet this criterion. Class A2 does not meet the criterion of minimum mean inter-item correlation. If the two items with lowest item-total correlation are removed, then it meets all three criteria. These items are 'make dependent' and 'give responsibility'. The results for the modified A2 (A2*) are also given in Table A1.

INSERT TABLE A1 ABOUT HERE

We also analysed the reliability and internal consistency of the two main categories (Table A2). Category A does not meet the criterion of minimum mean inter-item correlation. If the two items with lowest item-total correlation are removed, then it almost meets all three criteria. These items are, again: 'make dependent' and 'give responsibility' (A* in Table A2). Removing more items shows no further improvement.

INSERT TABLE A2 ABOUT HERE

The overall conclusion is that for 19 of the 21 actions the hypothesized classes are sufficiently reliable and internally consistent.

Confirmatory factor analysis. A confirmatory factor analysis (CFA) was used to empirically investigate and test competing hypotheses about the structure of the set of 21 items under investigation (Tabachnik and Fidell, 1996). The confirmatory factor analysis was based on the covariance matrix and used maximum likelihood estimation. The sample size requirements for performing confirmatory factor analyses found in the literature was first, that the minimum ratio of sample size to number of

parameters to be estimated is 5:1 (Bentler and Chou 1987). The model suggested in Table I has 52 parameters to be estimated and the minimum sample size was therefore 260. Other sources of literature suggested that a sample size greater than 100 was the minimum (Kelloway, 1998). With a sample of 391 responses both criteria are met.

Table A3 shows the goodness-of-fit statistics used to compare the relative fit of four competing models: an independence (null) model, a one-factor model, a two-factor model (Express solidarity (A) and Stimulate solidarity (S)) and a five-factor model (A1, A2, A3, S1 and S2). The independence model assumes that there are no relationships between the 21 items, thus providing a base line from which to compare the relative fit of all other models (Kelloway 1998). The one-factor model assumes that all items constitute one underlying construct. This model was used to test the rival hypothesis that one factor provides the best fit to the data. After all, it is possible that there is no typology to be made in the relational signals that actions contain. The two-factor and five-factor models test the hypothesis that the items measure two, respectively five, correlated, but distinct constructs with no cross-loadings. Chi-square difference tests indicate that the five-factor model yielded a significantly better fit than the independence model ($\chi^2_{diff}(31) = 5299, p < 0.001$), the one-factor model ($\chi^2_{diff}(10) = 344, p < 0.001$) and the two-factor model ($\chi^2_{diff}(9) = 258, p < 0.001$). The five-factor model yields a good fit to the data for all but one of the indices (CFI). The CFI and GFI indices are just below and just above the recommended value of 0.90 for good model fit respectively (Kelloway, 1998). The RMSEA value is well below the cut off of 0.08 (Browne and Cudeck, 1993). PNFI is an index for parsimonious fit taking into account the complexity of the model in the assessment of goodness of fit. The higher the value the better the parsimonious fit (Kelloway, 1998). The PNFI for the five-factor model is higher than for the one-factor and two-factor models. No meaningful modifications to the models were possible. In sum, the two-factor model shows better fit on all indices than the one-factor model, but not good enough fit. The five factor model shows a better fit on all indices and shows good fit on all but one of the indices.

INSERT TABLE A3 ABOUT HERE

Completely standardized parameter estimates are presented in Figure 1. As shown, model parameters are all significant ($p < .001$). Except for the items ‘make dependent’ ($R^2 = 0.10$) and ‘give responsibility’ ($R^2 = 0.08$), the model explains reasonable amounts of item variance (R^2 range from 0.21 to 0.57).

The above analyses were performed with all 21 items. The reliability and internal consistency (and EFA) analyses suggested removing the items ‘make dependent’ and ‘give responsibility’. Furthermore, in the CFA-five-factor model these two items had the lowest amount of variance explained. Are there theoretical grounds for removing these two items? First we consider ‘make yourself dependent’. At first sight, making oneself dependent on the actions of the other person is exactly what trust is all about, as it implies risk and vulnerability. In doing so the individual makes a clear sacrifice and sends a clear positive relational signal. However, the action is one of only two that does not correlate significantly with the level of trust. We see two possible explanations. One is that making oneself dependent makes oneself more trustworthy to the partner, and provides a basis for trust in the partner only when he reciprocates in making himself dependent. Imbalance of dependence is threatening. In other words,

dependency yields trust only in combinations with other variables. This tells us that making oneself dependent 'works' not as part of only one factor, but when combined with other factors. Note that these considerations do not apply so clearly to other trust building actions, except for 'give responsibility'. Those actions can 'work' without necessarily being reciprocated.

For the second explanation we go back to Luhmann (1979). People do not appear to experience trust as making yourself dependent. They appear actually to do what Luhmann (1979, p. 20) suggested: 'In trusting, one engages in action as though there were only certain possibilities in the future.' We live as if we are not dependent on the other person. Gillespie (2003: 31) found a similar phenomenon in her empirical research: 'In relationships characterized by high levels of trust, the subjective perception of vulnerability is often low, even when the objective level of vulnerability, inherent in the trustor's behaviour in the relationship is high.' Thus, especially in relationships with high levels of trust, high objective risks may be taken, but they will not be experienced as such subjectively. In other words, in trust dependence is ignored, or discounted. How about the second action 'give responsibility'? The arguments are similar to the ones indicated above. Given that it is practically impossible for an individual truly to give responsibility to another person without making himself dependent on the actions of that other person, it makes sense to eliminate this action for the same reason as for 'make yourself dependent'. Hence, there are both empirical as well as theoretical grounds for removing these two items and rerun the tests with a 19-item model. However, repeating the above confirmatory analyses for 19 items showed worse fit (two-factor model $\chi^2 = 719$ and five-factor model $\chi^2 = 460$).

Table A1: Measures of reliability and internal consistency of five hypothesized categories

Category	Measure
A1	5 items
Enact solidarity frame	$\alpha = 0.72$ (standardized) mean of inter-item correlation = 0.34 (variance = 0.003) range of item-total correlations 0.42- 0.54
A2	6 items
Accept influence from Alter	$\alpha = 0.64$ (standardized) mean of inter-item correlation = 0.23 (variance = 0.01) range of item-total correlations 0.24- 0.43
A3	3 items
Prevent misattributions of frame	$\alpha = 0.64$ (standardized) mean of inter-item correlation = 0.37 (variance = 0.02) range of item-total correlations 0.34- 0.52
S1	4 items
Prevent disappointments	$\alpha = 0.78$ (standardized) mean of inter-item correlation = 0.47 (variance = 0.004) range of item-total correlations 0.53- 0.65
S2	3 items
Bolster self-confidence Alter	$\alpha = 0.66$ (standardized) mean of inter-item correlation = 0.39 (variance = 0.02) range of item-total correlations 0.35- 0.55
A2*	4 items
Modified Accept influence from Alter	$\alpha = 0.65$ (standardized) mean of inter-item correlation = 0.32 (variance = 0.002) range of item-total correlations 0.40- 0.48

Table A2: Measures of reliability and internal consistency of two hypothesized main categories

Category	Measure
A	14 items
Express solidarity Ego	$\alpha = 0.82$ (standardized) mean of inter-item correlation = 0.24 (variance = 0.01) range of item-total correlations 0.24- 0.57
S	7 items
Stimulate solidarity Alter	$\alpha = 0.77$ (standardized) mean of inter-item correlation = 0.32 (variance = 0.02) range of item-total correlations 0.33- 0.58
A*	12 items
Modified Express solidarity Ego	$\alpha = 0.82$ (standardized) mean of inter-item correlation = 0.29 (variance = 0.01) range of item-total correlations 0.35- 0.58

Table A3: Comparison of fit indices between CFA models of trust building actions

Models	χ^2	df	$\Delta\chi^2$	Δ df	Sig $\Delta\chi^2$	CFI	GFI	RMSEA	PNFI
Independence model	5703	210							
One-factor model	748	189	4955	21	.00	.76	.84	.087	.63
Two-factor model	662	188	86	1	.00	.79	.86	.080	.65
Five factor model	404	179	258	9	.00	.89	.91	.057	.70

Note: 21 items. N = 391.