Abstract: Trust is frequently described as a fundamental ingredient in the creation and maintenance of successful exchange relationships (Morgan and Hunt 1994) and is a core component or foundation for interaction between organisational members (Fichman 2003). The causes and consequences of these interactions between organisational members are at the heart of an organisation's culture (Frank and Fahrback 1999). Therefore, trust and organisational culture are interdependent phenomena that interact and adapt to one another within an organisation. The purpose of this paper is to introduce a preliminary model to examine the dynamic nature of internal trust and how it interacts with and adapts to an organisation and its culture.

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An Integrated Model of Internal Trust and Organisational Culture

Catherine Dodd
Charles Sturt University
cdodd@csu.edu.au

ABSTRACT

Trust is frequently described as a fundamental ingredient in the creation and maintenance of successful exchange relationships (Morgan and Hunt 1994) and is a core component or foundation for interaction between organisational members (Fichman 2003). The causes and consequences of these interactions between organisational members are at the heart of an organisation’s culture (Frank and Fahrback 1999). Therefore, trust and organisational culture are interdependent phenomena that interact and adapt to one another within an organisation. The purpose of this paper is to introduce a preliminary model to examine the dynamic nature of internal trust and how it interacts with and adapts to an organisation and its culture.

Key words – trust, complexity theory, organisational culture

INTRODUCTION

The study of trust has spanned almost as many decades as it has research disciplines. This has resulted in a vast array of conceptualisations including fiduciary trust, mutual trust, social trust, characteristic-based trust, process-based trust, institutional based trust (Thomas 1998), conditional trust (Jones and George 1998), calculus based trust (Williamson 1993), knowledge based trust (Lewicki and Bunker 1995), identity based trust, as well as trust as a product of expectations, trust as security, and trust on a personal as well as a systemic level (Shapiro, Sheppard and Cheraskin 1992; Lewicki and Bunker 1995). The interest in trust is attributed to the fact that without it, people, organisations and societies could not function, whether they are dealing with other people, processes or inanimate objects (Chanderasekharan 2003). This is because trust has a social function in reducing the complexity of social life (Luhmann 1979) that enables individuals to have a basic assumption and point of departure to expect that the things and systems in their surrounding world are functioning.

There are two defining aspects of organisations – interactions among individuals and the sentiments or behaviours that are affected by those interactions (Frank and Fahrback 1999). A core component or basis for interaction between organisational members is trust (Fichman 2003) and the causes and
consequences of interaction are at the heart of an organisation's culture (Frank and Fahrback 1999).

Prior research into trust has focused on the direct effect that trust has on various organisational phenomenon, such as positive attitudes, higher levels of cooperation and superior levels of performance, across a variety of individual and group relationships (Dirks and Ferrin 2001). However, limited attention has been paid to the dynamic nature and enabling effects of intra-organisational trust (hereby internal trust), how it evolves, interacts and adapts within an organisation.

The purpose of this paper is to introduce a preliminary model to examine the dynamic nature of internal trust and how it interacts with and adapts to an organisation and its culture. The model focuses on the dynamic nature of trust between individual members of an organisation, the factors that contribute to the growth and decline of trust between these individuals and the subsequent effect individual trust levels have on the organisation and its culture. In addition, the adaptation of individual trust levels to the organisation and its culture are considered. This follows from Polo, Carroll, Hannon and Pell (1998) who suggested that forms and populations coevolve, in that forms (trust) define populations (organisational culture), but populations affect identities (individuals) which in turn define the form (trust). Following is a brief overview of the extant literature on trust and organisational culture. Complex Systems Theory is introduced and the integrated model of internal trust and organisational culture is described.

INTERNAL TRUST

Trust is a lens through which we can view much of organisational life (Fichman 2003). No partnership will work without trust, however it is one of the most difficult things to achieve (Child 2001) and it is even more difficult to sustain. This is because the dimensions of trust are subject to change when individuals make new experiences and trust may or may not increase through the course of interaction (Noteboom 2003; Lewicki and Bunker 1995). This implies that trust is an internal
process contained within the individual members of an organisation (Rosana and Velilla 2003). A fluctuating internal state or bandwidth that goes up or down depending on the situation and people involved (Chandrasekharan 2003). It is similar to other moral resources in that it grows with use and decays with disuse (Dasgupta 1990). It is also dynamic and non-monotonic in that additional evidence or experience at a later time may increase or decrease the level of trust one has in another.

It is vital to recognise the dynamic nature of trust. It can begin on a very limited and partial basis and then evolve, either strengthening or breaking down through time (Child 2001). Therefore, trust cannot be reduced to a simple and opaque index of probability because individuals’ decisions and behaviour depend on specific, qualitative evaluations and mental components (Castelfranchi and Falcone 2001). In addition, trust and distrust cannot be captured by disjunct theoretical models that assume either a world of conflict or a world of harmony. Which of the two situations prevails depends on the dynamic interplay of many factors (Schwarz and Ewaldt 1999).

Despite the number of definitions of trust arising from the different disciplines there is general agreement that the underlying conditions for trust are interdependence, risk and uncertainty and its critical components are positive expectations and a willingness to be vulnerable (Rousseau, Sitkin, Burt and Camerer 1998). Given the extreme conceptual diversity of trust, a construct that incorporates the relevant complexities presented by the various extant perspectives is likely to be cognitively overwhelming. However, a conceptualisation that omits these complexities in favour of a more abstract definition is likely to be too obscure to suggest a specific array of concrete data to be collected in empirical investigations (adapted from Osigweh in Bigley and Pearce 1998). Rather than debating which definition is more correct, it is important to recognise that trust is a multifaceted collective attribute comprising cognitive, emotional and behavioural elements (Lewis and Weigert 1985; Cummings and Bromiley 1996) and to identify which definition is most relevant to the particular study (McElivy, Perrone and Zaheer 2003).
In this study trust is considered to be cognitive, in that, trust in somebody basically is (or at least includes and is based upon) a rich and complex theory of them and their mind (Castelfranchi and Falcone 2001). Trust is defined as a “belief, confidence or expectation about an exchange partner’s trustworthiness that results from the partner’s expertise, reliability or intentionality” (Blau 1964; Larzelere and Huston 1980; Ganesan 1994; Doney and Cannon 1997). This definition is based upon two key components of trust, benevolence and credibility.

Benevolence is the belief that one party is genuinely interested in the welfare of the other party and is motivated to seek mutually beneficial gains (Doney and Cannon 1997; Atuahene-Gima and Li 2002). Benevolence includes the qualities, intentions and characteristics attributed to a partner rather than their specific behaviours (Rempel, Holmes and Zanna 1985) and is comprised of shared values, intentionality and goodwill. Credibility is based on the extent to which the trustor believes that the trustee has the required expertise to perform both effectively and reliably (Ganesan 1994) and may decomposed into competence-based and honesty-based credibility. Competence-based credibility arises from the trustor’s confidence in the trustee’s knowledge and skill related to a specific task, the trustee’s ability, and the expectation that the trustee is capable of performing and will perform as expected (Cook and Wall 1980). Honesty-based credibility is the belief that a party is reliable, stands by their word and fulfils promised role obligations (Ganesan 1994) and is built through repeated interactions characterised by information sharing and truthfulness.

Trust between individuals is built incrementally and is updated through a continuous re-evaluation by the trustor of the trustee’s behaviour (Lorenz 1993). Trust grows as a cognition function through the experience of positive or negative outcomes as a result of interactions between the trustor and trustee (Doney et al. 1998). Trust consists of beliefs, evaluations and expectations about a partner’s capabilities, self-confidence, responsibility, willingness, integrity, persistence, reliability, morality, motivations, goals and beliefs (Scott and Gable 1997; Castelfranhci and Falcone 2001). Therefore, it is important to recognise that despite the selection of a cognitive view of trust, behavioural and emotional dimensions are embedded within the cognitive evaluations that inform an individual’s
decision to trust or not trust. As stated by Lewis and Weigert (1985) “these dimensions are interpenetrating and mutually supporting aspects of one unitary experience and social imperative that we simply call trust”.

There has been a tendency from prior researchers to ignore organisational trust issues beyond the dyadic relationship at focus (Svensson 2001). Coleman (1984) considered trust ‘a relation between two actors’ and that ‘one actors placement of trust in a second may be conditional upon that of a third.’ That is, one person’s trust in a second person may be conditional upon trust in a third person to enforce the earlier contract or agreement. Svensson (2001) supported this contention in his conceptualization of the synchronized trust chain whereby trust in a downstream dyadic business relationship may be affected by the trust in an upstream dyadic business relationship in a marketing channel. Similarly, trust between a team manager and team member may be affected by trust between the team manager and the department manager. Alternately the trust that exists between two functional departments may be affected by the trust in a third department.

The role of trust has been examined in a number of intra-organisational relationships including trust up and down the management hierarchy (Lagace 1991; Davis et al. 2000; Brashear et al. 2003), between co-workers and within teams (Jones and George 1998; Costa, Roe and Taillieu 2001; Ferres, Connell and Travaglione 2004) and across functional departments and network alliances (Newell and Swan 2000). However, trust between individuals in an organisation and the subsequent development of trust within that organisation can not be confined to one dyadic relationship. Many interdependent relationships exist between different organisational members who may exist in different locations, occupy different roles and have different levels of responsibility. As such, it is necessary to broaden the significance of trust to embrace the hierarchical and hetararchical relationships that exist within an organisation in order to examine the dynamic nature of internal trust and its interaction and adaptation with organisational culture.
ORGANISATIONAL CULTURE

“Organizational culture is the pattern of basic assumptions which a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, which have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (Schein 1983 p. 1).

An organisation’s culture is associated with the organisation’s sense of identity, its goals, its core values, its primary ways of working and a set of shared assumptions (Schein 1996). The formation of organisational culture is the product of the interactions between its individual members (Frank and Fahrback 1999) and a function of the skills that individuals have and the norms and rules that individuals use to deal with each other (Richerson, Collins and Genet 2006). It consists of the set of shared, taken for granted implicit assumptions that members of an organisation hold (Schein 1996) and influences how each individual member understands and responds to their environment. In addition, the specific assumptions, norms and values of an organisation’s culture shapes the individual members pattern of interaction (Rousseau 1990) and creates an environment in which certain behaviours are encouraged or discouraged.

An organisation’s culture may indirectly encourage (or discourage) trustworthy behaviour through the general pattern of communication, coordination and decision making (Whitener et al. 1998). The pattern of interaction between individual members of an organisation is indicative of the organisation’s culture, to the extent that interactions are hierarchical, concentrated within cohesive groups or randomly distributed (Frank and Fahrback 1999). A fundamental ingredient underlying these interactions, and thus organisational culture, is the trust that exists between the individual members of the organisation.
Culture, in itself, is a property of a group that shares its own stable history and may exist across an entire organisation or within the sub-groups of an organisation (Schien 1988). In addition, pockets of trust may exist between individuals or business units who have worked closely together and know that the other party will deliver what they promise (Mutch 2003). These pockets of trust may be an organisational stability factor (Herting and Hamon 2003) in that they represent a stable history based on the knowledge that has been derived from the outcomes of past interactions. Therefore, these ‘trust pockets’ may represent the groups’ culture and as the trust between these individuals evolves the culture within the group will evolve as well. However, the trust that exists cannot be expressed in the formal rules of the organisation as it is an internal state that exists within each individual member of the organisation (Rosana and Velilla 2003). Nevertheless, the evolution of trust between individuals and groups will be conditioned by the organisations’ or groups’ culture, and by implication the rules and norms, in which the members are embedded (Fichman 2003).

**COMPLEX SYSTEMS THEORY**

Complex Systems Theory is a “perspective for theorising and modelling dynamic systems” (Morel and Ramanujam 1999 p. 278) that offers an appealing metaphor through which to analyse organisational behaviour (Lewin, Parker and Regine 1998). Schwartz and Ewaldt (1999), considering organisational complexity, argued that organisations need a much higher and more dynamic level of trust if they are to survive the rapid evolution of the business environment. Fundamental to complex systems is the emergence of high-level order from low-level interactions among heterogeneous, autonomous agents, each guided by a few simple rules (Lewin, Parker and Regine 1998). Two commonly observed characteristics of complex systems are: A large number of interacting elements and emergent properties. A large number of interacting elements reside within organisations in that they are made up of individuals, groups and departments that interact with one another by way of feedback.
mechanisms. Emergent properties are independently observable and empirically verifiable patterns that appear due to the collective behaviour of these interacting elements within the organisation (Morel and Ramanujam 1999).

Complex Systems Theory captures the complexity of change and can provide significant insights about the interactions of organisations and why new forms emerge overtime (Jarratt and Bossomaier 2005). However, the majority of research applying Complex Systems Theory to organisations has focused on organisation level adaptation and evolution rather than the adaptation and evolution of individuals within the organisation and the corresponding adaptation and evolution of the organisation to its individual members. The micro-coevolution of internal trust and organisational culture differs from traditional theories of co-evolution as the focus is on the interplay between forces internal and external to individuals within the organisation rather than to the organisation itself. Focusing on trust as an internal phenomenon and organisational culture as the external environment necessitates an individual, rather than a firm, level of analysis. Following an individual level of analysis, each member of the organisation is considered to be an actor reacting to the influences of other members, but also choosing which other members they interact with and, resultantly, those members who define their context (Frank and Fahrback 1999).

Generally research utilising Complex Systems Theory is analysed through mathematical modelling requiring significant assumptions and restrictions to examine the nature of the problem. However, prior to the development of these mathematical models, especially those to be utilised in scenario planning, it is necessary to qualify the nature of the elements, to assess how they interact with one another and to propose the patterns that emerge from the interaction between these elements. Therefore, Complex Systems Theory is a useful vehicle through which to understand the dynamic nature of internal trust and how it interacts with and adapts to an organisation and its culture.
INTEGRATED MODEL OF INTERNAL TRUST AND ORGANISATIONAL CULTURE

The integrated model of internal trust and organisational culture is intended to capture the dynamic nature and evolution of trust between individual members of an organisation and the subsequent adaptation of individual trust levels to the organisation and its culture. The model represents the trust that may exist between individuals within an organisation and dictates that trust is developed through a sequence of calculus, knowledge and identification based trust building processes. The proposed model is an adaptation of the Bews and Martins (2002) model that examined the facilitators for trustworthiness. The Bews and Martins (2002) model is adapted to examine the evolution of trust within an organisation and the process through which individual trust levels interact and adapt within the confines of the organisation and affect the organisation and its culture.

The development and evolution of trust is explained through the interaction between the individuals within the organisation and the outcomes that are experienced as a result of these interactions. Prior to any interaction between individual members of an organisation there are a number of pre-trust conditions that affect each individual’s decision to trust or not trust specific others. After making an assessment of these pre-trust conditions individuals decide to trust or not trust others. The decision to trust results in an interaction between two individuals within the organisation and the consequence of this decision is the experience of positive or negative outcomes. After each outcome is experienced individuals will organise their trust level. These trust levels will then adapt or adjust as a result of the individual’s interaction with other individuals, processes or procedures that make up the organisation and its culture. The adaptation of individual trust levels to the organisation and its culture may then cause a reorganisation of the individuals trust or distrust in specific others within the organisation. This process is contained in Figure 1 and explained in the subsequent sections.
Pre-Trust Conditions

The first stage occurs prior to any interaction between two individual members of an organisation. At this stage there are several pre-trust conditions that will affect an individuals’ decision to trust or not trust others. The first, disposition to trust, is the extent to which one displays a consistent tendency to be willing to depend on others across a broad spectrum of situations and persons (McKnight and Chervany 2001). As expectancies are generalized from one social agent to another people acquire a kind of diffuse expectancy for trust of others that eventually assumes the form of a relatively stable personality characteristic (Rotter 1971; 1980).

Dispositional trust can be thought of as a representation of an individual’s belief regarding political cynicism, structural assurances, and reliable role performance (Jeffries and Reed 2000). Some of the personality traits that may predispose a person to trust include an individual’s faith in humanity, risk propensity and culture (Brashear et al. 2003). As stated previously an organisations culture may
indirectly encourage (or discourage) trustworthy behaviour in its individual members and, therefore, predispose members to trust (or not trust) other members.

Other pre-trust conditions include the perceived risk or probability of loss associated with the decision to trust, the perceived credibility and benevolence attributed to the trustee and contextual factors that are unique to the organisation. These pre-trust conditions are internal states that exist within each individual member of the organisation and that may adapt as individuals learn about the organisations culture through their interaction with the other people, structures and processes of the organisation. For example, the perceived benevolence and credibility a new employee attributes to their manager may adapt as a result of their interaction with a colleague who discredits the manager.

Trust between individuals is influenced by past experiences and chances of future interactions with one another (Bijlsma and Koopman 2003). If expectations are met or exceeded this should lead to positive expectations in the future and an enhanced level of trust however if expectations are disappointed the level of trust between the parties may fall (Lewicki and Bunker 1995; Gautschi 2002). Lewicki and Bunker (1995) conceptualised three distinctive trust building processes; calculus-based, knowledge-based and identification based trust that are adopted in this paper. Each of these processes or bases represents a different stage in the evolution of trust between the individual members of an organisation.

**Calculus based trust**

Calculus based trust originates from economics (Williamson 1993) and sociology (Coleman 1990) and involves the rational comparison of costs and benefits of behaviour. Relationships built on calculus based trust are considered to be at the lowest and most fragile level (Lewicki and Bunker 1995) whereby even small inconsistencies in performance could have detrimental effects on trust perception. Calculus based trust is relevant when individuals have a lack of personalised knowledge about other members of the organisation, or reasonable grounds for conferring trust on them (Dirks and Ferrin 2001). As such, they need to identify proxies for trust and the trust in these proxies is then transferred
to the trust target (Doney et al. 1998). The proxies that are used will differ depending on the individual and their position within the organisation. For example, managers will be inclined to trust in the professional credentials (education, association membership, previous employment) of new employees and transfer this trust to trust in the new employee. Whereas new employees may trust in the reputation of the organisation, the professionalism of the recruitment process and the reputation of and role occupied by other employees and transfer this trust to individual members of the organisation.

As individuals increase their level of interaction with other members of the organisation and also with the organisational structures and processes their trust may develop from calculus based trust to knowledge based trust through the realisation of positive outcomes from past interaction (Lewicki and Bunker 1995). However, it is important to note, that interactions between some organisational members are infrequent or only occur over a discrete range of circumstances so that the outcomes experienced from those interactions only serve to sustain calculus based trust.

**Knowledge based trust**

Knowledge based trust develops as individuals or parties interact, share experiences, regularly communicate and observe one another over a range of situations as a result of the predictability and understanding which derives from shared experience (Albrecht 2002). Interactional histories play a formative role in the development of knowledge based trust in two ways. Firstly, expectations regarding trustworthiness are generally anchored in *a priori* expectations about others’ behaviour and, secondly, those expectations change in response to the extent to which subsequent experience either validates or discredits those expectations (Kramer 1999). As a result, history that is shared and knowledge that is gained between individual members of the organisation becomes a basis for calibrating and updating trust-related expectations.

Although knowledge based trust implies a higher or deeper level of trust than calculus based trust it also indicates that individuals have knowledge of the situations in which they may or may not trust specific others. Trust between individuals may be restricted to specific exchange situations or guarded
where there is uncertainty about one another’s real intentions or ultimate goals (Dasgupta 1988). This may be exhibited through the pattern of interaction between the individual members and groups within the organisation and through the delegation of duties and new opportunities throughout the organisation. In this case, new opportunities would be given to those individual or groups who have demonstrated their ability to be trusted over a range of circumstances. Whereas, process based work may be given to those individuals or groups who have demonstrated that they can only be trusted with specific responsibilities.

Through knowledge based trust individuals learn about one another’s values, interests and intentions (Albrecht 2002) and depending on the degree of similarity between one another’s values and interests knowledge based trust may be sustained, fall or grow. Minor discrepancies may cause some interactions to result in negative outcomes and the level of trust to be sustained at the knowledge basis. Major discrepancies, such as differences in moral integrity, resulting in numerous negative outcomes may cause the level of trust to fall and the level of interaction between members to subside. In contrast, individuals who share similar backgrounds and motivations are likely to experience positive outcomes as a result of their interaction and this may cause the frequency of interaction to increase and the level of trust to grow.

**Identification based trust**

Identification based trust develops when there is congruence between individual members motivations, desires and intentions (Brashear *et al.* 2003). This type of trust is more applicable to individuals in close interpersonal relationships and has been argued as the highest order of trust (Sheppard and Tuchinsky 1995). This type of trust is built on closely identifying with another individual and is more flexible to changing conditions and a more difficult bond to break than is calculus or knowledge based trust (Lewicki and Bunker 1995). Identification based trust may be achieved through the fit or cultural blending of individuals in an organisation and may be assessed through the similarity of individual’s interests, values and goals. However, in terms of organisational culture, value congruence is likely to
be of greater importance in gaining a successful fit between individuals and their organisation (Chatman 1991).

**Distrust**

The conditions that are conducive for the emergence of trust also allow for the abuse of trust or the emergence of distrust (Elangovan and Shapiro 1998). In the same manner that positive outcomes may cause trust to be sustained or grow negative outcomes may stunt trust growth or cause trust to fall. At the extreme, trust violations may be so severe that they result in the complete dissolution of trust into distrust. Distrust is engendered where “the compatibility of an employee’s beliefs and values with the organisations cultural values are called into question” (Sitken and Roth 1993). A central cognitive component underlying distrust is suspicion (Deutsch 1958) and this is described by Fein and Hilton (1994 p.168) as the active entertainment of “multiple, possibly rival, hypotheses about the motives or genuineness of a persons behaviour”. Previous research has suggested that processes such as social categorisation may heighten distrust and suspicion between individuals from groups within an organisation (Kramer 1999).

In terms of the integrated model of internal trust and organisational culture trust is expected to fall when interactions between organisational members result in negative outcomes over a range of circumstances. The extent to which trust dissolves is dependent on the magnitude of the trust violations in combination with the individual’s adaptation to the organisation (Liljander and Roos 2002). In a relationship characterised by identification based trust the dissolution of trust is more complicated than a shift from calculus based trust to distrust. This is because each party has made an emotional investment in the relationship which increases the potential loss that may be experienced should a violation occur (Jones and George 1998).

The key factors that determine the degree to which the state of trust deteriorates are the perceived strength of the violation, the intensity of emotional outbursts and the responses of both parties to these outbursts (Jones and George 1998). The magnitude of the trust violation may be so great that it causes
the immediate and irreparable collapse of trust into distrust. On the other hand minor violations may be forgiven and the present state of trust may be retained as a result of the parties shared values that orient them towards the future and condition the prospective exchange relationship. Consequences of distrust or violations to trust are revenge (Bies and Trip 1996), dissatisfaction (Fitzpatrick, Friend and Costley 2004), and maleficent behaviour.

**FUTURE RESEARCH DIRECTIONS**

The outcomes experienced as a result of interactions with other members of the organisation will cause individuals to organise their trust level with respect to the other members. Individuals trust in each other will then adapt through their interaction with external stimuli in the organisation which may cause a subsequent reorganisation of their trust in each other. Organisational culture, structures and processes will affect this process of adaptation and reorganisation (Frank and Fahrback 1999). It is anticipated that during periods of relative stability trust and organisational culture will change and adapt in the same manner as species evolve, elaborating and reinforcing the existing form (Lewin, Long and Carroll 1999). Changes in the external environment, or the organisations culture, are expected to be accommodated through the incremental adaptation and organisation of the internal form, each individuals trust level. These processes are reinforced with repeated validation feedback. However, as major forces of change begin to converge and the environment becomes more turbulent, individuals can be expected to adapt initially by intensifying their historical patterns of strategic exploitation and exploration.

Exploitation adaptations are directed primarily towards the incremental improvement of existing capabilities and efficiency and exploration adaptations involve searching for, identifying and investing in new opportunities (Marsh 1991). The focus of this ongoing research is to understand how internal trust and organisational culture coevolve and to examine the different exploitation and exploration adaptations that occur under different environmental conditions. It is anticipated that different ‘trust pockets’ will employ different strategies and this will provide greater insight into the evolution of internal trust and it interaction with and adaptation to the organisation and its culture.
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