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Suzanne McMurphy

University of Windsor, School of Social Work

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Trust, distrust, and trustworthiness in argumentation: Virtues and fallacies

SUZANNE MCMURPHY

*School of Social Work
University of Windsor
Windsor, ON N9B 3P4
Canada
mcmurphy@uwindsor.ca*

ABSTRACT: What is trust? How does it function as a primary virtue for persuasive arguments? How does its presumption contribute to the effectiveness of an argument's persuasiveness? This presentation will explore these questions and the controversy among scholars regarding how trust is generated and under what conditions it is lost. We will also discuss whether inauthentic trustworthiness is a manipulation used for gaining a fallacious advantage in argumentation.

KEYWORDS: distrust, interpersonal trust, trust, trustworthiness

1. INTRODUCTION

What is trust? Researchers have yet to arrive at a consensus as to whether trust is an emotion, a behavior, a rationale decision, a 'leap of faith', a neurobiological expression or some combination of all of the above. Currently, we know more about what trust *does* than what trust *is* (Castaldo, Premazzi, & Zerbini, 2010, p. 657). We do know that it is a human phenomenon that plays a critical role in our personal lives (Govier, 1998; Hardin, 2006), in the fabric of society (Govier, 1997; Rothstein, 2005), in the stability of financial markets (Audi, 2008) and the strength of governments (Fukuyama, 1995). People with higher levels of trust are happier (Dolan, Peasgood, & White, 2008), healthier (Gilson, 2003), and live longer (Barefoot, et al., 1998). Children who fail to develop trust are more likely to engage in criminal behavior, substance abuse and self-harm, including suicide (Langille, Asbridge, Kisely, & Rasic, 2012). When people lose trust in legal and judicial institutions they are less likely to be compliant with laws and regulations (Tyler, 1994). When citizens lose trust in political leaders and government structures, civil unrest and the deterioration of the social fabric can occur (Sullivan & Transue, 1999). The loss of trust between global financial institutions can contribute to events such as the recent fiscal crises that we see across industrial countries (Earle, 2009). When governments lose trust in each other, the world can become very insecure (Rothstein, 2005), evidenced by events such as the cold war, the gulf wars, the stand-off between North and South Korea, Israel and Syria, and so on. Thus trust, a concept in which we know very little about, can have devastating consequences when it is broken, betrayed, lost or absent (Currall & Epstein, 2003). In fact, one author has noted that we need trust "in order to live at all" (Hosking, 2006, p. 95).

Perhaps one of the reasons that we still have little consensus on the nature of trust is that each discipline has focused on the role of trust exclusively as it functions within their field of study (Rodgers, 2009). The recent explosion of interest in trust has resulted in a range of definitions and discussions regarding the nature of the construct, but mainly within discipline boundaries. For example, a systematic review on the role of trust in business management identified 96 different definitions of trust across 50 years of research (Castaldo et al., 2010, p. 659). Moreover, based on the heterogeneity and complexity of their findings, they raise concerns about the use of a few simple definitions for a very complex topic (Castaldo et al., 2010, p. 662).

2. TRUST DOMAINS

For the past seven years I have been conducting a systematic review of the literature on trust, distrust and trustworthiness across disciplines. To organize this research, I have created the following five domain classifications--interpersonal, social, institutional, political and meta trust. Here is a quick summary of the types of discussions that are organized into each of these domains as an illustration of the breadth of interest in trust.

In the interpersonal trust domain, research focuses on trust between individuals whether in familial or close relationships, among friends, acquaintances, between strangers, as well as within the types of interactions between individuals where trust is a necessary condition (as opposed to confidence, reliance, or familiarity—distinctions that I summarize in later parts of this paper). Most of the current research on trust can be found within this domain, which will also be the primary focus of my presentation today as it corresponds most closely to issues relevant to argumentation.

The next domain is social trust which includes trust between individuals and groups or within and across groups. Here is where I locate discussions of social capital, such as discussions of trust within bridging and bonding social capital—Coleman (1990) and Putnam (2000)—as well as empowerment social capital as described by Stanton-Salazar (2011). This is also where discussions regarding the influence of discrimination and stigmatization have on trust (Rothstein, 2005), and where I have placed Dr. Govier's discussion of rhetorical disadvantage (Govier, 1993) as well as her discussion on trust in social communities (Govier, 1997).

The next domain is institutional trust which includes trust between individuals and professionals, such as patient-physician trust (Hupcey, Penrod, Morse & Mitcham, 2001), organizations such as the health care system (Gilson, 2003; Mechanic, 1998), child welfare system (Bessant, Hil, & Watts, 2005), businesses and financial institutions (McEvily & Tortoriello, 2011). Research on the role of institutional trust in business, organizational management, financial markets, and on-line systems has been one of the fastest growing areas and is also one of the few places where the impact of distrust has been most fully explored (Schoorman, Mayer, & Davis, 2007).

The next domain is political trust where I organize research on trust between individuals and systems of governance, within and between governments and

government agencies such as trust in the police, legislatures/parliaments and judicial systems (Kramer & Cook, 2004). In this domain, research on trust explores how it manifests itself between citizens and political systems, including politicians and governmental agents such as regulatory bodies (McDermott, 2012). Discussions in this domain also explore how trust influences the relationships both within and between governments (Audi, 2008; Fukuyama, 1995). In this domain, I also include the role of trust promoting civil democracy as the foundation for the ‘common good’ or ‘common weal’ and the space where discussions of the public good and social welfare contributes to the advancement of society (Bellah, Madsen, Sullivan, Swindler, Tipton, 1985; Hauser & Benoit-Barne, 2002). Within this domain, the connection between trust and argumentation research can make a substantial contribution to the discussion of contributive democracy and the process by which ‘good arguments’ are made and delivered to contribute to civil society (Newton, 2001).

The last domain I call meta-trust which includes research on the biochemistry of trust, such as the use of oxytocin to increase trust (Kosfeld, Heinrichs, Zak, Fischbacher, & Fehr, 2005), the location of trust and distrust in the brain using fMRI studies (Dimoka, 2010), and trust as a human phenomenon that transcends the confinement of definition (Buford, 2009). I think this area is also relevant to argumentation theory as discussions in this domain include the individual propensity for trust and ways that trust may be able to be manipulated to gain advantage. An excellent paper explores the possibility that these new areas of trust research may represent potentially fallacious arguments (Gibbons, 2007).

Regarding my presentation today, I will focus on research within two of these domains and summarize selected findings as they may contribute to argumentation theory—interpersonal trust and meta-trust. First let me begin with an overview of my particular approach to the dynamics of trust, distrust and trustworthiness as a context for my later discussions on the role of trust in argumentation within the interpersonal and meta-trust domains.

3. TRUST, DISTRUST AND TRUSTWORTHINESS FRAMEWORK

Based on the systematic review that I have been conducting, I illustrate the dynamics between trust, distrust and trustworthiness into a framework I call my ‘trust triangle’ (See Figure 1, below). Embedded within this framework are three sets of assumptions, which are also relevant to argumentation discussions: assumption 1) each of the three constructs within the trust relationship—trust, distrust and trustworthiness—embodies characteristics that are unique and independent of the trust relationship or interaction, i.e. that these constructs can be examined in their own fundamental nature and are not dependent upon a relationship for their manifestation; assumption 2) there is a relational dynamic between trust and trustworthiness and distrust and trustworthiness that will influence the expression of these constructs within a relationship; assumption 3) that distrust is a distinct construct that is separate from trust (not the opposite of) and has different characteristics from that of trust as well as a different relational dynamic with trustworthiness. These assumptions are expressed within each of the

three components of the trust triangle: trust, distrust and trustworthiness. I will examine how they manifest in two domains—interpersonal trust and meta-trust in this presentation.

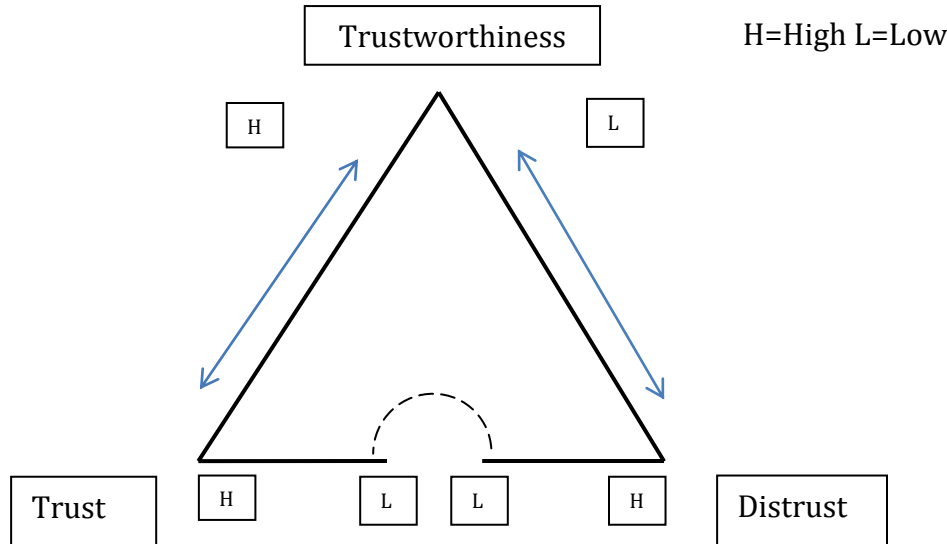


Figure 1: Trust Triangle

3.1 Trust

Let's begin with the perspective of the person or entity engaging in trust—the trustor. Since the 1960s, the majority of trust research has focused on the individual, group, etc who is doing the 'trusting' and how and when the decision to trust occurs from this perspective. Historically, discussions of trust have not always focused on the person *doing* the trusting, but the characteristics of the person or object *being trusted*, e.g. 'trustworthiness'. For example, some of the earliest writings on the characteristics of trustworthy individuals and institutions can be found in Aristotle's 'Ethos' and in his virtue ethics discussions. In these writings, the focus is on the behaviors, characteristics and principles that we should observe or expect from someone or an object that is to be considered as 'trustworthy'. However, after much of these early writings on trustworthiness, trust moved into the background and was considered as an ancillary construct in discussions on relationships.

Trust emerged again as a construct of interest in the 1960s when psychologists identified trust as an indicator of healthy child development and stable adult relationships (Rotter, 1971). A psychologist and social learning theorist developed and tested the first empirically validated scale to measure interpersonal trust focusing on attributes of affective-based trust (Rotter, 1967). With this re-emergence of trust as a construct worth independent exploration, the focus shifted from the target of trust—and the assessment of their trustworthiness—to the trustor and their propensity or personality attributes conducive to being a 'trusting person' as evidence of a healthy personality. As a result, the majority of trust research and discussion focuses on how trust is gained and sustained rather than on

what it means to be trustworthy and the responsibilities placed upon the object of trust. Several researchers have recently argued that discussions of trust have been dominated by an optimistic bias that trust is always a “positive virtue” (Gargiulo & Ertug, 2006, p. 165) and a “catch-all panacea” for solving interpersonal and institutional problems (McAllister, 1997). This has led to a number of very recent discussions on the ‘dark side of trust’ and the potential negative role that trust might play in relationships for both the trustor and the object of trust (Skinner, Dietz, & Weibel, 2013).

Within the interpersonal trust domain, a commonly cited definition is “*a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another*” (Rousseau, Sitkin, Burt & Camerer, 1998, p. 395). Three elements in the ‘trustor’s’ perspective are important here: 1) the willingness to take a risk or be vulnerable; 2) in the face of uncertainty or uncertain outcome; 3) regarding the positive expectations of another. The characteristic that differentiates trust from other elements of relationships—such as confidence, reliance, belief, etc—is the willingness to take a risk or be vulnerable to another. This risk has been described in various ways such as a ‘leap of faith’ (Möllering, 2006) or a ‘suspension of disbelief’ (Holton, 1994) on the part of the trustor toward the person or object of their trust and has a long legacy in trust discussions (Möllering, 2001). The inherent risk component of trust differentiates it from confidence and reliability; we can develop an expectation of future fulfillment of an agreement or confidence in the actions of another without also incurring vulnerability. When we must make a ‘leap of faith’ to assume a specific outcome, we have incurred trust. The risk or vulnerability characteristic of trust can also be seen when our expectations are not met: when someone has betrayed our confidence or found to be unreliable, our typical response is to be disappointed (Luhmann, 2000). However, when our trust is betrayed, we feel a greater emotional sense of violation, based upon the risk and vulnerability that we assumed in the trust relationship. Not only do we feel betrayed, but we also feel regret that we trusted in the first place, or even at all (Luhman, 2000). Inherent in our response to trust violations is both an external sense of betrayal by the other, but also an internal betrayal by our own senses. As a result, once trust is lost, we may never regain it—or may only regain it with great time or effort (Lewicki, 2006). On the other hand, when we are disappointed in someone, we may be able to rebuild our confidence based upon future interactions, or their demonstrated reliability, but violated trust requires a reparation in both the external relationship and the internal experience (Luhman, 2000). As a result, there has been quite a bit of concern among trust researchers that trust is being conflated with concepts such as confidence and reliability, which diminishes the greater consequences of trust betrayal and regret (Baier, 1986; Brownlie, 2008; Luhman, 2000).

One of the current trends within research on interpersonal trust is to classify different types or forms of trust. Three of the most common classifications are *affective-based trust*, *cognitive-based trust* and *morality-based trust* (Lahno, 2001; McAllister, 1995; Olekalns & Smith, 2009). *Affective-based trust* is emotionally based (Lahno, 2001) and focuses on the positive expectations by the trustor that their object of trust will *act in their best interests*, will *act benevolently* toward them, that

they will not act in any way that would bring harm to the trustor (Möllering, 2008). *Cognitive-based trust* is rationality-based (Hardin, 2002, 2006) and focuses on the positive assessment by the trustor that the object of trust will be *competent*, *have integrity* as well as be *transparent* and *consistent* in their actions (Hupcey, et al., 2001). *Morality-based trust* can be either emotional or rational and focuses on the positive assessment or experience by the trustor that their object of trust shares their *moral standards*, *principals* and *ethics* (Lahno, 2001; Siegrist, Earle & Gutscher, 2007).

Interpersonal trust can range from high to low, involve very small to very large risks, emerge instantaneously through a first impression, or be gained over a long period of time through the course of a relationship or series of interactions. We may be consciously aware of our trust as in cognitive-based trust or we may not be aware of entering into a trusting relationship as is more common in affective-based trust. Different forms of trust may also be more common in certain types of relationships, such as with a professional or skilled tradesman (trust you might have with your doctor or for your plumber versus your spouse) based upon the characteristics of the relationship or the trustworthy characteristics of person or object of trust.

3.2 Trustworthiness

The second element in my trust triangle are the *characteristics of the person or object of trust*—their ‘trustworthiness’—these are qualities or expressions by the ‘trustee’ or ‘trusted object’. This object of trust does not need to be another person, it can also be a organization, institution, etc. (Brownlie, 2008; Gilson, 2003). As mentioned earlier, original discussions on trust focused on the characteristics of trustworthiness and what behaviors or attributes could be considered ‘trustworthy’ and would warrant the placement of trust. Characteristics of trustworthiness can include behaviors such as authentic or accurate portrayals or claims of expertise, competence, honesty, integrity, transparency and consistency (Rodgers, 2009). They can also include intention to be trustworthy—such as the intent to act in good faith, to act compassionately, or with benevolence (Mayer, Davis, & Schoorman, 1995; McKnight & Chervany, 2002).

Hardin’s book on *Trust and Trustworthiness* (2002) is excellent, however, there are few other current discussions on the role of trustworthiness outside of the organizational context (Elsbach, 2004) and emerging discussions within the professional ethics context reviving Aristotle’s discussion of virtue ethics (Lovat & Gray, 2008). Some discussion on trustworthiness of data and methods can be seen within the constructivist epistemological paradigm as a consideration for assessing the rigor of a qualitative research study (Graneheim & Lundman, 2004) and within the journalism profession regarding the role of the undercover journalist in investigative reporting (Wasik, 2008). However, little of this discussion focuses on the relational aspects of trustworthiness and the emerging definitions of trust. In other words, what are the characteristics of trustworthiness, which warrant the risk or vulnerability of the trustor? Current discussions of trust have not explored questions of trustworthiness in alignment with the discussions of the behavior of

the trustor. We don't teach our professionals to think in terms of how can I be a trustworthy professional? Our government officials aren't asking the question, how do I act in a trustworthy way, or how do we build societal structures that are trustworthy?. Instead discussions continue to focus on how do I gain the trust of a client, of a constituent, of a voter or a consumer—which I think is the wrong question. So I think there is much work to be done in this area in which argumentation theorists could contribute.

3.3 Distrust

Distrust is the third element in this three part triangle as a small body of research has identified distrust as a distinct construct which has differential attributes as well as a distinct influence on the context of relationships from that of trust (Lewicki, McAllister and Bies, 1998). Early research on trust assumed that distrust was merely the opposite end of the continuum of trust and that a relationship could move back and forth on a continuum of trust/distrust or suspicion (Deutsch, 1958). Both trust and distrust still embody the defining characteristics of vulnerability and risk, but there are separate expectations in the face of an uncertainty—in the trust continuum the 'trustor' takes an optimistic expectation of a positive outcome while in the distrust continuum, the 'trustor' expects to experience harm and injurious behavior along with negative self-interest from the object of their distrust (Cho, 2006). These different etiological points change both the behavior of the trustor and his or her interpretation of the intentions and behavior of the person or object of trust—or distrust—which in turn critically alters the dynamics of the relationship (Nickel, 2007; Rodgers, 2009).

The fragility of trust and the movement into distrust is also a concern; it is possible that once trust has been betrayed, or a previous trustor has shifted onto the distrust continuum, return to a trusting relationship may not be possible; any ensuing interaction will only result in lower or higher levels of distrust (Lewicki, 2006; Simons, 2002). The consequences of this critical dynamic can be observed in interactions between individuals, groups and institutions, and legal and governmental entities. Once trust is lost, further disintegration within the relationship, social structures and political systems continues until a final dissolution occurs, which can result in relationship terminating, organizational and institutional upheavals changes and political revolutions (Grönlund & Setälä, 2012; Hauser & Benoit-Barne, 2002).

A second reason to explore trust and distrust as separate constructs is that researchers have found that within interpersonal trust, we can trust and distrust someone simultaneously, combining trust with low levels of distrust (Hardin, 2006). In the cognitive trust context, we trust those with specific expertise, such as professionals, to competently carry out one set of tasks, but not necessarily trust them to carry out other tasks for which they are not trained (Siegrist, Gutscher & Earle, 2005). For example, you might trust your family physician to make an accurate diagnose of your illness, but you wouldn't trust them to conduct surgery, you would expect to see specialist, to carry out that task. You might call in a plumber if you have a leaky faucet, but you would not trust them to cut your hair while they

are there. You might trust a colleague to write a paper with you, but not trust them to manage a sensitive departmental issue, or show up to a meeting on time. In the affective trust context, I may trust someone to house sit and not steal from me while I am on vacation, but I may not trust them to keep a secret or to care for my well-being (Govier, 1998).

4. MUTUAL CONTRIBUTIONS

4.1 Argumentation contributions to trust theory

Dr. Govier's work is an example of the important work that argumentation theorists can contribute to trust research (1993, 1997, 1998). Moreover, argumentation theory is one of the few places where the scholarly dialogue could further the understanding and assessment of trustworthiness. As the origination of an argument and the locus of persuasion originates with the 'trustworthy' entry point into the trust dialogue, the characteristics of the person putting forward the argument and the relational dynamic in the direction of trustworthiness to the 'trustor' has much to add to the current dialogue on trust.

In particular, questions on when violations of trust, or the expression of false trustworthiness, in order to persuade or manipulate a situation, become a key consideration in evaluating arguments. For example, a discussion on undercover journalism was recently repeated on National Public Radio which discussed the role of undercover journalism, especially in wake of difficult situations where trust is manipulated for the purpose of gathering information or research data. When the true situation is exposed, it will almost inevitably result in the betrayal and violation of trust. In this radio segment, a discussion of how an undercover journalist decides how and when to disclose their deception and face the inevitable loss of trust was discussed (Gladstone, 2013). An undercover journalist describes his decision to leave the job that he had taken in a meatpacking factory just prior to being discovered as a journalist and, therefore, revealed as deceptive to his friends and co-workers at the factory. He describes his angst at inevitably betraying their trust, and exposing himself as untrustworthy, as his decision to leave (Wasik, 2008). In assessing his qualities as an undercover journalist and the related ethical dilemmas, a colleague described him as having the "right amount of agony" over the process of deception in order to persuade his colleagues of his trustworthiness, and the potential loss of trust as a result of his exposure. It was his angst in reflecting on his lack of trustworthiness, and the potential impact on the trust of his colleagues that made his deception 'acceptable.' (Gladstone, 2013).

Another consideration within the current dialogue in trust and distrust is the concept of 'agency', and whether or not the 'trustor' has the autonomy to willingly accept the vulnerability and risk inherent in entering into a trusting relationship. For example, does 'encapsulated self-interest' as described by Hardin, drive the manifestation of trust in the rational trust model (Hardin, 2002). If so, then interactions that would reduce the agency of the trustor to enter into a trusting relationship, such as power or manipulation, would constitute a violation of trust and potentially alter the interaction into one of distrust, with potentially more lost

than gained. On the other hand, many argue that we make decisions to trust more frequently based upon incomplete information and make 'leaps of faith' to engage in a trust relationship, in which case, we may introduce a moral responsibility on the person making the argument to protect the vulnerability, or the well-being, of the person within the interaction.

Similarly, attitudes of discrimination and stigma can influence the trust relationship, both within the specific construct of distrust—as a dimension within the construct of the 'distrustor'—as well as within the dynamic between distrust and trustworthiness. Here is where Dr. Govier's discussions on rhetorical disadvantage may be relevant to research on distrust, where some groups, based on their character or attributes, are considered more trustworthy, while others are 'disadvantaged' in situations where their voices are necessary, yet their arguments are considered inherently unpersuasive because they have characteristics which make them assessed as untrustworthy, such as gender, race/ethnicity or societal position such as socio-economic status, group affiliation and so on.

4.2 Trust research contributions to the study of argumentation

For purposes of applying trust research to discussions in argumentation, I am going to cover just a couple studies from the fields of negotiation and organizational management whose results may be most interesting to argumentation theorists.

Within the field of negotiation, the development and use of interpersonal trust has been associated with positive outcomes and greater joint gains among the parties. Even though it would seem logical that negotiators would engage in rational-based strategies, negotiators often listened to their internal affective experience and acted upon feelings of interpersonal trust. The findings from a large study of the role of trust in negotiation found that as negotiators experienced more trust from their constituents, they acted with greater flexibility and exhibited less defensive strategies (Turner, 1990, p. 61). However, when negotiators experienced less trust from constituents, they engaged more 'disruptive' behaviors and adopted a more 'win-lose' strategy which resulted in fewer mutual benefits (Turner, 1990, p. 61).

However, the results from this study have been contradicted by another, which specifically explored the use of power and deception to gain advantage in negotiations and how trust might influence behavior in these situations (Olekalns & Smith, 2009). When all other issues within the context were equal, negotiators would preference their own affective states when deciding to deceive or set up a situation where they would take advantage. Negotiators used deception when they thought the other party would exploit them and if they were distrustful of the other party. Negotiators who felt anxious were also more likely to deceive as they paid more attention to their affective states and the role of interpersonal trust, than the actual context, (Olekalns & Smith, 2009, p. 360).

However, the most surprising results came from the situation where the constituents showed high level of affective trust for the negotiator. In this situation, the negotiators employed deception, even when the stakes were low and when there was little to gain (Olekalns & Smith, 2009, p. 359). The authors concluded that when the negotiators detected that affective trust was high, the negotiator would

take advantage of this situation and use their trust to the negotiator's advantage, even when the gains were small. Negotiators felt they had "greater latitude" in their behavior and that they would be more likely to be "forgiven" by "nice" opponents and "seized the opportunity" to improve their outcomes or increase their gains through deception (Olekalns & Smith, 2009, p. 359).

Finally, there is a broad area of research on how people decide to trust and how trust influences their behavior when engaging in financial transactions. These studies use an exchange process outlined in a commonly used 'trust game' that manipulate situations where two individuals exchange money based on rules which allow for the examination of trust and trustworthy behavior. This 'trust game' has been played with varying levels of sophistication and complicated interactions (Burnham, McCabe, Smith, 2000). However, in one study, individuals engaged in this 'trust game' where they are unable to see each other and were interviewed as to their 'strategy' for playing the game (Hotz, 2005; King-Casas, et al., 2005). In one interview, two women were participants in a study where they were playing on-line across two universities in separate parts of the US (Hotz, 2005). One of the participants, in the role of the 'trustor' described how their strategy involved trusting the other person to do the right thing and intended to follow-through all the way to the end. The second person, the one in the 'trustworthy' position, articulated that they intended to act in a trustworthy way all the way to the end, and then in the final play, they would betray the other person and take all the money. The article describes each of the turns of play as each described their strategy (Hotz, 2005). In the end, the person in the 'trustworthy' position did not betray the other person, and her behavior surprised even herself, as she could not really say why she had acted in a trustworthy way.

This leads us to explore elements of the propensity to trust or be trustworthy, as described by research in what I have labeled, 'meta'-trust.

5. META-TRUST

Meta-trust includes explorations of the etiology of trust that is specific to the physical, chemical or emotional contributions to the nature of 'trusting' or being a 'trusting' or 'trustful' person. In this domain, I will cover these trust antecedents, such as biochemical trust and the neurobiology of trust.

Within biochemistry, a hormone has been identified as having an influence on trust called oxytocin (Kosfeld, et al., 2005; Nowakowski, Vaillancourt, & Schmidt, 2010). Studies of these chemicals have found that when experimental subjects were administered these hormones, they exhibited increased trust. In these experiments trust was defined as exhibiting greater willingness to take risks in exchange situations where they had the potential to be exploited (Kosfeld, et al., 2005). In studies of the influence of oxytocin on behavior, participants who were administered the hormone showed an increase in positive emotional feelings, which in turn lowered their inhibitions for taking risks. However, they did not engage in just any form of risk-taking, but only "social risks in relation to interpersonal interactions" (Kosfeld, et al., 2005, p. 673). Since risk-taking is a component of trust, the behaviors that exhibit the evidence of trust appear to be increased, as well as the

positive expectations that accompany the affective forms of trust. The hormones that accompany these changes in emotions are related to the same types of hormones that are activated with dopamine (Hotz, 2005). Quite literally, it feels good to experience ‘trust’.

In neurobiology, researchers are working to find the area of the brain where trust resides. A new field called ‘neuro-economics’ is exploring the biological contributions to economic behavior including the physical role of trust. In the largest brain-imaging study on economics in the US, researchers at Baylor University explore the brain responses to decision-making when engaging in financial decision making (King-Casas, et al., 2005). As players interact, their brain activity is monitored to identify changes based on their decision-making patterns and levels of trust. In these studies, as well as others that examine brain imaging and trust, researchers have identified specific areas of the brain that activate when individuals are experience trust and distrust as well as assessments of trustworthiness (Boudreau, McCubbins & Coulson, 2009; Dimoka, 2010; Krueger, et al., 2007).

Similar to conceptual discussions that identify different behaviors associated with trust and distrust, neurobiology shows there are different areas of the brain associated with these two constructs as well. Trust activated areas of the brain connected with reward and predictability, while distrust was more closely associated with emotion and fear of loss (Dimoka, 2010, p. 16). In two separate studies, researchers compared the brain activity of older and younger individuals and found that the assessment of facial distinctions associated with trustworthy or untrustworthy cues decreased with age (Castle, et al., 2012). The authors concluded that this decreased brain activity related to the assessment of facial cues contributed to the vulnerability of elderly individuals to fraud and abuse (Castle, et al., 2012). Similar risks might also be associated with individuals that have a natural propensity for decreased activity in this brain area, and might also make them more vulnerable to deception and manipulation.

From an argumentation perspective, science discussions in the popular press—not necessarily the scholarly articles—may constitute fallacious arguments (Gibbons, 2007). Gibbons indicates that informal science descriptions of complex processes do not provide sufficient technical details that allow the reader to assess the credibility of the argument. Furthermore, the way in which the argument is “framed” reduces the participation of the reader in the critical thinking necessary to conduct a thorough assessment of the grounds for the argument or an evaluation of the implications (Gibbons, 2007, p. 185). Therefore, this type of popular argument does not meet the standards of a ‘good argument’ and may do more harm than good in educating the public.

It is exactly this type of analysis and critique that argumentation theorists can contribute to a vastly expanding dialogue on the use and misuses of trust. You can remind of us of the need to focus on the responsibility and consequences of trustworthy behavior within the trust dynamic and how to identify when we are heading down erroneous paths. Help us to explore the question of when we ask someone to engage in trust with us—to ‘trust us’—what are we really asking them to do? And what are our responsibilities when we take on the role of the object of

trust—for example as the argumentor—in the expectation of risk and vulnerability that we ask the ‘trustor’ to engage in?

6. CONCLUSION

So I leave you with a series of questions regarding the implications of current trust research for the study of argumentation.

6.1 Question 1

How much does the existence and level of trust or distrust in a relationship influence the context and process of an argument? If trust is manipulated to gain an advantage in an argument, could this be considered a fallacious argument? Or do all arguments rely on the manipulation of trust—i.e. that asking someone to trust us always requires that person to take a ‘leap of faith’ or ‘risk’ to trust us? Is this an inherent mechanism for persuasion, either consciously or unconsciously?

6.2 Question 2

Do we need to trust the individual who puts forth an argument, or can we separate the content of the argument from the person putting forth the argument, such that the person making the argument does not need to be ‘trustworthy’ but only that the content meet standard expectations of arguments?

6.3 Question 3

Should the preservation of trust, or the avoidance of the creation of distrust, be included as a goal of argumentation or within the assessment of a ‘good’ argument?

6.4 Question 4

Given that trust is based upon risk-taking in the face of uncertainty, do we need to evaluate arguments based upon their potential harm, or impact on the wellbeing of the trustor or the person to whom the argument is being made? Does self-respect and autonomy become important elements? If an argument requires that the ‘trustor’ give up elements of their autonomy or agency in order to engage in the dialogue, what is the responsibility of the person putting forth the argument for assuring that they consider their influence and ‘power’ over the person they are engaging in a trust relationship? Situations of high trust may result in the acceptance of arguments without sufficient dialogue or critique, for example.

6.5 Question 5

Is trust always an element in arguments or can arguments be made where the risk and vulnerability are sufficiently low that trust is not an element?

6.6 Question 6

If part of the role of the 'arguer' is to engage their audience in such a way as to gain their trust (Tindale, 2004), what is being requested of those in the 'trustor' position? Should more discussion focus on the types of trust that one should engage in (i.e. competence and integrity) and perhaps types of trust that one should not engage in (benevolence or 'best interests') so that there is less risk of betrayal?

6.7 Question 7

If factors in the production of trust can be reduced to individual characteristics of physical chemistry, if you can purchase a nasal spray with oxytocin, how might this influence the role and responsibility of the person in the argument?

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