Trust in Social Relations

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Abstract

Trust is key to understanding the dynamics of social relations, to the extent that it is often viewed as the glue that holds society together. We review the mounting sociological literature to help answer what trust is and where it comes from. To this end, we identify two research streams—on particularized trust and generalized trust, respectively—and propose an integrative framework that bridges these lines of research while also enhancing conceptual precision. This framework provides the springboard for identifying several important avenues for future research, including new investigations into the radius of trust, the intermediate form of categorical trust, and the interrelationships between different forms of trust. This article also calls for more scholarship focusing on the consequences (vs. antecedents) of trust, addressing more fully the trustee side of the relation, and employing new empirical methods. Such novel approaches will ensure that trust research will continue to provide important insights into the functioning of modern society in the years to come.

INTRODUCTION

Social scientists have long insisted that without trust, society as we know it could not exist (Arrow 1974, Blau 1964, Fukuyama 1995, Putnam 1995, Simmel 1978). It is thus unsurprising that trust is at the heart of sociological inquiry (Lewis & Weigert 1985) and that the list of scholars elaborating on its critical importance reads like a "who's who" of sociology, including foundational theorists such as Durkheim (1984), Weber (1951 [1915]), Parsons (1937), Simmel (1950), and Blau (1964). Today, the study of trust remains at the forefront of sociology, often motivated by the argument that trust underlies a variety of key societal outcomes, such as reciprocity (Hayashi et al 1999), collective action (Ostrom 1998), solidarity (Molm et al 2007a), equality (Smith 2010), social order (Cook 2005), and democracy itself (Choi & David 2012).

If it appears straightforward that trust is important and significant in many social relations, what is nonetheless so intriguing about this topic? One answer to this question relates to the paradox that trust is often not entirely rational ex ante but is very effective ex post (Berg et al 1995). If incentives are such that it is attractive for partners to abuse trust and act opportunistically, people should not take risks with these partners. However, studies consistently show that trust is a pervasive reality of social life. In that sense, research on trust is intriguing because trust may help reduce the complexities of social interactions (Luhmann 1979), symbolize the fabric of our day-to-day living (Rotter 1980), and represent a glue that binds social systems together (Paxton 2007).

It is likely that the importance of trust will only continue to grow. In the 21st century, remote collaboration with both unknown and known counterparts is increasing (in part due to the recent global pandemic), and much of economic life is now happening outside the boundaries of organizations, regions, and nations, making trust a ubiquitous concern. Max Weber was among

the first to raise concerns that a lack of universal trust could endanger social functioning in modern society (Weber 1951 [1915]). Similarly, Niklas Luhmann (1979) related trust to accommodating the growing complexities, uncertainties, and risks that pervade modern society. In today's world, power relations within organizations have been increasingly replaced by trust relations in markets (Blau 2002, Cook & Hardin 2001). The obligations involved in larger networks of associations are not prescribed by norms to the same extent as in smaller groups but are instead more diffuse and uncertain, bringing the problem of trust to the fore (Cook 2005). Because it is more difficult to apply formal controls in today's interdependent, uncertain, and global settings (Bijlsma-Frankema & Costa 2005), trust has evolved as an important alternative to govern social relations (Misztal 1996, Sztompka 1999) and undergird significant societal institutions.

The growing relevance of trust in society has been accompanied by an increasing amount of scholarly work in this area. As concerns surrounding peacemaking, stability, sustainability, and justice are becoming more and more urgent in today's world, sociological investigations will surely continue to shed light on trust in the years to come (Cook et al 2005a, Lewis & Weigert 2012, Mizrachi et al 2007). In addition to representing a bedrock of sociological theorizing and inquiries, trust research has also been growing in other major disciplines in the social sciences and beyond, including psychology (Messick et al 1983), economics (Fehr 2009), biochemistry (Kosfeld et al 2005), neuroscience (Krueger et al 2007), and genetics (Cesarini et al 2008), as well as many professional disciplines such as marketing (Morgan & Hunt 1994), management and organizations (Mayer et al 1995), and management information systems (Pavlou & Gefen 2004).

WHAT IS TRUST?

We define trust as the willingness of an entity (i.e., the trustor) to become vulnerable to another entity (i.e., the trustee). In taking this risk, the trustor presumes that the trustee will act in a way that is conducive to the trustor's welfare despite the trustee's actions being outside the trustor's control. This understanding is consistent with those of Mayer et al (1995), Rousseau et al (1998), and other contemporary conceptualizations. Across social science disciplines, important similarities exist in terms of how trust is viewed (Rousseau et al 1998). Scholars that view trust from the perspectives of psychology (e.g., Lewicki et al 1998) and economics (e.g., Bhattacharya et al 1998) would agree that trust broadly refers to one's willingness to be vulnerable to another actor. However, while consensus has been emerging on what trust is (Foddy & Yamagishi 2009), notable compartmentalization of the study of trust remains. For instance, sociologists seem to be divided in their interest in either particularized or generalized trust, which may produce overly fragmented views on the topic. As with many other constructs that are used by a variety of scholars with different backgrounds, central ideas often get lost and micro-communities emerge, impeding cumulative progress in our understanding of the phenomenon.

To address this issue, in this review we attempt to synthesize the mounting sociological literature by (i) summarizing the state of the field of trust in social relations, (ii) reviewing two (only ostensibly separate) approaches to trust—particularized versus generalized—based on extant literature, and (iii) proposing an integrative theoretical framework that allows for a better understanding of trust. This review focuses on work in which trust represents a key analytical concept and in which the focal setting concerns social relations represented by at least two human actors. It is beyond the scope of this review to address trust in non-human actors (such as pets or objects) or trust in oneself (Avnet et al 2012). This review is also primarily concerned

with trust research in sociology, although we will identify some of the relevant work by other social scientists at several points in this article.

TRUST IN SOCIAL RELATIONS

Trust plays a key role in classical sociological theories (Blau 1964, Luhmann 1979) and has been studied empirically in the context of a wide array of social relations, such as those between people in the workplace (Burt & Knez 1995), sellers and buyers (Kollock 1994), investors and banks (Yenkey 2018), organizations (Powell 1996), criminals (Smith & Papachristos 2016), citizens and governments (Choi & David 2012), scientists (Zucker et al 1996), firefighters (Pratt et al 2019), doctors and patients (Schnittker 2004), family members (Li & Tan 2013), and married couples (Burke & Stets 1999). Given the breadth of applications across a variety of contexts, trust is central to a number of subfields of sociology, including economic sociology (Granovetter 1985); social psychology (Simpson & Willer 2015); demography (Larzelere & Huston 1980); race, gender, and class (Smith 2010); morality (Hitlin & Vaisey 2010); education (Bryk & Schneider 2002); medical sociology (Stepanikova et al 2006); and immigration (Portes 1995), among others.

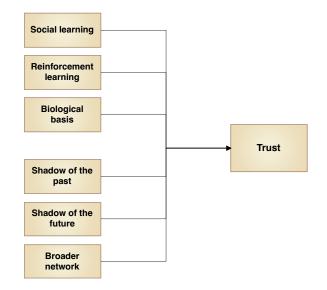
In conceptual treatises and empirical investigations, trust has been related to many other social processes, some of which can be considered conceptually distinct while others are relatively close correlates. For instance, trust is different from, yet related to, the construct of *social uncertainty* in the sense that the uncertainty inherent in social relations is a crucial precondition for the development of trust (as we will discuss further later on). Trust is also different from *risk* (Sztompka 1999); for example, risk aversion among Airbnb users was found to have an inverse relationship with trust when the Airbnb host had a high reputation (Abrahao et

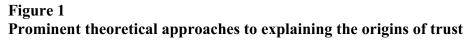
al 2017). Trust can also be distinguished from *commitment*; for example, trust levels vary by level of commitment in romantic relations, being lower for ex-partners and higher for engaged couples, newlyweds, and couples married for more than 20 years (Larzelere & Huston 1980). Further, trust is different from *trustworthiness* (Cheshire et al 2010), which denotes the partner's level of reciprocity. Other constructs often associated with trust are *social capital* (Lin et al 2001, Portes 1998), *cooperation* (Cook & Cooper 2003), *embeddedness* (Granovetter 1985), *distrust* (Reimann et al 2017), and *liking* (McAllister 1995). While the definition of trust presented in the previous section highlights what is unique about the construct, to make trust measurable it is reasonable for empirical research to operationalize trust in terms of related proxies (e.g., trust games often approximate trust through cooperation, assuming that it represents the behavioral manifestation of the willingness to make oneself vulnerable).

TWO APPROACHES TO TRUST? EXTANT FINDINGS

A prevalent method of structuring the landscape of sociological trust research rests on the binary distinction between scholarship on generalized vs. particularized trust (e.g., Gilson 2003, Yamagishi 2011). Various terms have been used quasi-synonymously when referring to each of these notions; for *generalized trust*, these include social trust (Hardin 2002), abstract trust (Paxton 1999), general trust (Yamagishi 2001), dispositional/interpersonal trust (Rotter 1980), propensity to trust (Mayer et al 1995), and trusting stance (McKnight et al 1998), while for *particularized trust* they include personalized trust (Marschall & Stolle 2004), dyadic trust (Larzelere & Huston 1980), knowledge-based trust (Yamagishi & Yamagishi 1994), and relational trust (Cook 2005). Generalized trust typically involves a relatively large circle of unfamiliar others, a societal level of analysis, and/or a wide array of activities for which trust can

exist, whereas particularized trust commonly refers to a rather narrow circle of familiar others, a more micro level of analysis, and/or a specific domain in which trust exists. While particularized trust identifies variance, generalized trust typically assumes it away. Scholars regularly point to differences between these two approaches to trust research in terms of their respective assumptions, methods, and citation networks (Sturgis & Smith 2010, Wu & Wilkes 2016). In this review, we will briefly adopt this institutionalized dichotomy when presenting our summary of extant sociological trust scholarship before highlighting problems with this dichotomy and the need to better integrate trust research across the generalized–particularized divide. Figure 1 provides an overview of frequently employed theoretical approaches to studying the sources of trust, which will serve as the structure of our ensuing discussion of extant findings.





Generalized Trust

The term *generalized trust* typically describes actors placing a certain level of trust independent of the identity of the trustee and the nature of the situation (Cook et al 2005a). The concept refers

to dispositional tendencies to trust others (Rotter 1971), confidence in people's goodwill (Kosugi & Yamagishi 1998), a default belief in the benign nature of mankind (Yamagishi & Yamagishi 1994), or a moral obligation to assume that others are trustworthy (Uslaner 2002). While this stream of research can be traced back to studies in psychology that treated generalized trust as a kind of personality trait, some studies in sociology and political science conceptualize generalized trust at the cultural level, proposing national or regional differences in the tendency to trust others.

Much of the research in this vein uses archival survey information, such as the General Social Surveys or the Social Trust Survey, to identify time trends or cross-country differences in generalized trust. In support of Putnam's (1995) provocative claim that trust is declining in the United States, Paxton (1999) and Robinson and Jackson (2001), for example, find empirical support for a degeneration of generalized trust in individuals. While in 1960 the majority (55 percent) of Americans agreed that "most people can be trusted," this number dropped to just 35 percent in 1988 (Putnam 2000). In terms of cross-country differences, Bjørnskov (2008) provides a synthetic overview of generalized trust levels around the world. Among the more consistent findings in this research are that Scandinavian countries have the highest levels of generalized trust, followed by several other Western European nations.

To tackle the question of where such variations in generalized trust may originate, theorizing often adopts a social learning perspective (Hardin 2002, Paxton & Glanville 2015, Stolle 2001). According to this view, actors extrapolate from early life experiences (Erikson 1964) as well as ongoing encounters (Hardin 2002) in order to form a general expectancy of others' trustworthiness. In other words, people learn to what extent others can be trusted. A particular focus is on early life experiences with family members, which are thought to be especially formative. For example, Rotenberg (1995) finds a positive relationship between mothers' fulfillment of promises to their children and their children's trust, as well as a positive relationship between a mother's and her children's trust beliefs. However, trust can also be learned and altered much later in life. In Cao and Galinsky's (2020) study, for instance, social interactions are shown to alter people's levels of generalized trust (also see Paxton & Glanville 2015), pointing to its malleability (rather than absolute rigidness).

Another attempt to identify the sources of generalized trust is based on reinforcement learning, or learning about oneself (Kuwabara 2015, Macy & Sato 2002). Instead of discerning the trustworthiness of others (as in social learning), the focus of reinforcement learning is on getting to know one's own identity and comfort level and categorizing oneself as either a naturally low or high trustor. As people observe their own actions, they come to form a selfperception of themselves as trusting or non-trusting.

A third, more recent line of work has identified a biological component of generalized trust. Rather than assuming trust to be solely a product of socialization, this research points to genetic influences predisposing an individual toward certain levels of generalized trust (Cesarini et al 2008, Reimann et al 2017, Sturgis et al 2010). Consistent with the broader stream of research into the genetic origins of social processes (see Freese & Shostak 2009), the reasons for people's willingness to trust appear to be, at least in part, biologically based.

In summary, generalized trust research assumes that some people are consistently more trusting than others. Thus, there are "high trustors" and "low trustors" in society, either because people are born this way or because they learn their trusting disposition as a result of their experiences.

Using these and other theoretical models as their springboard, a considerable number of empirical studies has investigated the antecedents to generalized trust. Among the most widely studied antecedents are race and ethnic diversity (Dinesen & Sønderskov 2015, Rydgren et al 2013, Ziller 2015); religious orientation and church attendance (Delhey & Newton 2005, DiPrete et al 2011, Welch et al 2007); social embeddedness (Glanville et al 2013, Li et al 2005, Paxton 2007); national and regional (cultural) differences (Gheorghiu et al 2009, Simpson 2006, Yamagishi & Yamagishi 1994); economic conditions (Abascal & Baldassarri 2015, Delhey & Newton 2003, Ross et al 2001); age (Li et al 2005, Robinson & Jackson 2001); and education (DiPrete et al 2011, Welch et al 2007). Although some extant findings are far from conclusive, the majority of these studies find generalized trust to be higher among whites (vs. non-whites), in ethnically less diverse environments (but see Rydgren et al 2013), among Protestants (vs. non-Protestants) and frequent church-goers, when people are socially embedded, in Western (vs. Asian) countries, in the Southern (vs. non-Southern) US, under prosperous economic conditions, among older people, and among the highly educated. While the list of factors studied in prior research is impressive, there is clearly room for more studies, both to examine additional antecedents and to sort out the complex interrelationships between previously identified ones.

Particularized Trust

Research on particularized trust assumes that the locus of trust is a specific situation or a specific relationship rather than an actor's disposition (Cook 2015, Kollock 1994). Particularized trust is relational in nature; it is directed toward a particular target and a particular action. Among the different approaches to studying particularized trust, the encapsulated interest conception of trust (Cook et al 2005a, Hardin 2002, Hardin 2006) is probably the most theoretically advanced.

Adopting a rational-choice perspective, the encapsulated interest account assumes that trustors attempt to predict whether it will pay off for the trustee to encapsulate their interests and be high in trustworthiness. That is, a precondition for trust to be placed is that the trustor has reason to believe the trustee will be motivated not to behave opportunistically and to instead honor that trust. A key reason for the trustee to do so is a desire to not spoil the relationship, leading the trustee to care about—or "encapsulate"—the trustor's interests in the relation. Of course, making such predictions about the trustee's motivations and trustworthiness is non-trivial (and this is why trust necessarily remains risky), but there are important pieces of information that can serve as a basis for making reasonable predictions. In particular, the encapsulated interest account emphasizes three sources of information on which the trustor may rely: (1) past interactions, (2) future interactions, and (3) broader networks.

First, a partner's trustworthiness can be inferred from past interactions, a process sometimes referred to as the 'shadow of the past' (Poppo et al 2008, Swärd 2016). This view considers trustworthiness perceptions to be the result of prior exchanges between the parties (Blau 1964). Accumulated relationship experience from the past offers important cues to the kind of behavior to be expected from the trustee in the situation at hand (Larson 1992, Luhmann 1979). In a way, the partner's past behavior serves as a proxy for his or her expected future behavior; trust is dependent on the prior exchange history, which functions as a social institution shaping expectations and behaviors. Following a logic of path dependency, a new relationship may start with relatively insignificant exchanges; as these smaller obligations are honored and more substantial exchanges are undertaken, trust in the partner grows. Thus, a trustee's earlier trustworthy behavior engenders trust. However, "(w)here people have little history together, or

an erratic history of cooperation mixed with exploitation, or a consistent history of failure to cooperate, people will distrust one another" (Burt 2001, p. 33).

Second, trustworthiness can be inferred from how much the partner is likely to value the relationship and to want to maintain it, a process called the 'shadow of the future' (Axelrod 1985, Molm et al 2000, Poppo et al 2008). From this viewpoint, trust is the result of a forward-thinking assessment of the costs and benefits of trustworthy behavior for the partner. When the expected payoffs from a series of future exchanges are larger than the gains from opportunism in the present (with opportunism likely resulting in the trustor dissolving the relationship and the trustee losing the stream of returns from future interactions), it makes economic sense for the trustee to be trustworthy. However, when short-term benefits from defection outweigh anticipated long-term gains, trustworthy behavior may be rather unlikely. Therefore, key considerations include the trustee's short-term gains from exploiting trust vs. the net present value of the future relationship, which is a function of its remaining length and the value generated in each transaction (Telser 1980). As such, ceteris paribus, trust tends to be lower when the relationship will naturally expire soon and when payoffs from the few remaining interactions are likely to be negligible.

Third, trustworthiness can be inferred from the broader network in which the trustor and trustee are embedded. Such inferences are likely particularly relevant when actors lack direct experience and are unclear about future interactions. From a network perspective, trust can be the result of reputational concerns and can flow through indirect connections linking actors to one another (Coleman 1990, Dasgupta 1988, Kollock 1999, McEvily et al 2020). If the trustee has a strong reputation, and if reputation is a key success factor in the trustee's field, then the trustee has an incentive to be trustworthy in order to preserve his or her reputation (Schilke et al 2017,

Zucker 1986). In other words, a trust breach is more costly for those who have made significant investments in reputation-building and for whom reputation is a critical resource (Schilke & Cook 2015). Conversely, partners with little concern for their reputation will be trusted to a lesser extent. According to this logic, trust originates in the broader social context in which the focal relationship is embedded; it stems less from the trustee's (past or future) direct tie to the trustor than from the trustee's motivation to maintain ties to third parties who may be of great value (Burt & Knez 1995). Further, trust can be based on less diffuse sources of network information whenever the trustor has a close tie to an actor who in turn is tied to the focal trustee. Such a third party may communicate their perceptions of the trustee to the trustor either explicitly or implicitly through their behavior (Granovetter 1985).

Building on these and other theoretical arguments, sociological research has identified a variety of antecedents to particularized trust. In terms of the shadow of the past, both the duration of the existing relationship and the experiences in prior interactions have important implications for trust. Consistent with predictions from the encapsulated interested account, particularized trust tends to be stronger when there has been a long history of exchange between parties (Kollock 1994) and when the trustee has demonstrated behavioral commitment (Molm et al 2000), shown consistent reciprocity (Cheshire et al 2010, Molm et al 2007b), or even given favors to the trustor (Uzzi 1997). Conversely, particularized trust declines when there has been a trust breach (Robinson 1996), especially when this breach happened early (rather than at a later stage) in the relationship (Kuwabara et al 2014, Schilke et al 2013).

Similarly, the idea of the shadow of the future has found broad support. Particularized trust tends to be higher when actors expect their relationship to extend to future interactions (Cook et al 2005b) or at least consider it likely that their paths will cross again (Macy &

Skvoretz 1998). Following a shadow-of-the-future logic, one would also expect social constraints (such as contracts or regulations) to bolster expectations of trustworthiness; however, results in this area have been mixed. While some scholars find that such constraints do foster trust (Robbins 2016, Schilke & Cook 2015), others find that they may actually *decrease* trust, especially once the constraints are taken away (Irwin et al 2014, Malhotra & Murnighan 2002). To reconcile such contradictory findings, researchers would be well advised to move from the question of *whether* trust and constraints are complements or substitutes to the question of *when* they are (Cao & Lumineau 2015). More work is required to disentangle the intricacies of the trust–control nexus (Bijlsma-Frankema & Costa 2005).

Beyond direct experiences, indirect cues in the form of reputation (Abrahao et al 2017) or observing third-parties' trust decisions (Przepiorka & Aksoy forthcoming) can also significantly affect particularized trust. More generally, trust and distrust can be substantially amplified by the presence of third parties, although the precise effect of these third parties is contingent on their role (Burt & Knez 1995) and the multiplexity of their relationships with the trustor and trustee (Li & Piezunka 2020). Despite these important findings, the broader-networks approach to studying the antecedents of particularized trust has received relatively scant attention to date. We believe the time has come for scholars to move beyond the focal dyad to consider the broader social settings in which this dyad is embedded when studying how trust decisions are made (McEvily et al 2020).

While much extant sociological research on particularized trust can be directly interpreted from an encapsulated interest angle, one antecedent that has received much attention addresses a fundamental precondition for trustworthiness assessments to even come into play: social uncertainty. There is now considerable evidence that social uncertainty is a necessary

condition for trust to emerge. In the absence of uncertainty about the other party's actions, trust is not required and thus is unlikely to be pronounced. Kollock (1994), for instance, reports higher levels of trust in the context of trading experience goods (whose quality can only be evaluated by the buyer after the purchase) vs. search goods (which the buyer can fully evaluate prior to purchase and are thus of certain quality). Further, Guseva and Rona-Tas (2001) suggest that trust is more evident in situations involving uncertainty compared to those involving calculable risk. Expanding on the idea of social uncertainty sowing the seeds for trust, Molm and colleagues (Molm et al 2013, Molm et al 2000, Molm et al 2012) offer convergent evidence that reciprocal exchanges (in which benefits flow unilaterally and sequentially) are more conducive to trust building than are negotiated exchanges (in which benefits flow bilaterally and jointly and thus involve less uncertainty). All of these findings point to one of the central paradoxes in research on particularized trust (Yamagishi 2011): trust is most relevant in situations when uncertainty is high, and it is in exactly those situations that trust is most difficult to produce. Surely this puzzle will continue to spur future trust scholarship on the complicated interrelationship between uncertainty and trust.

TRUST: AN EXTENDED FRAMEWORK

Although frequently evoked in sociological research on trust, we propose that the generalized– particularized divide is over-simplified and needs to be refined in order to reduce confusion regarding how trust can be studied and to eliminate a false dichotomy that may mistakenly imply insurmountable qualitative differences between research streams. In a field of scholarship regularly criticized for its conceptual fuzziness, like that of trust (e.g., Hwang & Burgers 1997, Williamson 1993), it is critical for researchers to use precise terminology rather than umbrella labels that lack sufficient precision. At the same time, we need to eschew a bifurcation of sociological trust research and be careful with categorical labels that may create the mistaken impression that distinct camps of trust scholars might be interested in radically different and unrelated things, when in reality many differences in sociological trust scholarship are more a matter of degree than a matter of kind. Overall, we believe that the conventional generalized– particularized distinction may exaggerate qualitative differences across camps while glossing over relevant differences within them. To overcome this problem, we introduce a more nuanced framework that (1) highlights the gradual nature of just how generalized trust can be and (2) elaborates three unique components of trust whose respective degrees of generality can be orthogonal and thus require individual specification.

First, rather than thinking about generalized and particularized trust as a bipartite distinction, we advocate an approach that conceives of the "radius of trust" as a gradual concept. The idea of a trust radius goes back to Francis Fukuyama (1995) and can be understood as "the width of the circle of people among whom a certain trust level exists" (van Hoorn 2014, p. 1256). The term 'width' unmistakably implies graduality (as opposed to a binary understanding), such that various degrees of width are possible, ranging from very narrow to very wide, with many points in-between. It would thus be misleading and overly restrictive to focus all our attention on the extreme points of highly particularized and highly generalized trust alone. Importantly, we would overlook a plethora of highly relevant intermediate forms—most notably, trust as it pertains to various social categories, or what we will refer to as *categorical* trust. Neither confined to a specific individual or single situation nor abstracted to virtually all people or any circumstance, categorical trust captures many of the social dynamics at the core of sociology. In fact, categorical trust may represent the most realistic middle ground in many

everyday-life trust decisions, where—in the interest of conserving cognitive resources—trust is neither customized to each specific instance nor generalized across virtually all possible situations. A wide variety of categorical forms come to mind with respect to the trust target, including trust in family members, trust in coworkers, trust in organizations, trust in racial categories, trust in people of a certain gender, and trust in strangers, among many others. None of these forms of trust could be accurately termed either particularized or generalized, but they nonetheless—or perhaps for this reason—deserve considerable research attention in order for us to truly understand how trust decisions are formed.

Second, there is an inherent lack of precision built into the generalized-particularized dichotomy because trust, by definition, entails three components, some of which may be rather generalized while others may be rather particularized. Specifically, virtually all contemporary models of trust contain (1) a trustor, (2) a trustee, and (3) a trust object. "A trusts B with respect to issue x" (Cook et al 2005a, p. 7), where A is the trustor (the actor placing trust), B is the trustee (the target of trust), and x is the trust object (the domain or activity in which trust is placed) (also see Gheorghiu et al 2009, Hardin 2002, Rompf 2015). The trust radius of each of these components can vary independently, making it highly ambiguous what generalized (or particularized) trust as a uniform concept means. Many earlier applications of the dichotomous approach either conflate these three components or focus on only one while leaving the other two unspecified. In particular, there appears to be a tendency to prioritize the trustee over the trustor and the trust object. Such an exclusionary focus is usually not justified. We also do not know at what assumed level of generality the trustor and trust object are held constant in such investigations. To remedy these problems, we recommend moving toward radiuses (plural) of trust. The generality of trust can vary and needs to be specified along all three components. First,

the trustee's radius can range from highly particularized (trust in a specific individual) to highly generalized (trust in most people), with a wide variety of intermediate, categorical forms of trust targets, as mentioned above. Second, the trustor's focal unit of analysis can vary on a continuum from a particular individual to a small group to an organization to an entire society.¹ Third, the trust object can be very specific—trust in the context of this particular interaction, but not beyond—but it can also be more broad, such as trust across several interactions within the same domain of activity (e.g., trust with respect to conducting monetary transactions, but not with respect to caring for a child) or even complete trust with respect to all things in life.

We suggest that these three trust radiuses can be conceptually orthogonal to one another, and while it is ultimately an empirical question whether certain constellations are more prevalent than others (e.g., following a configurational approach à la Ragin 1987), there is evidence that these trust radiuses do not neatly converge into overall correspondence across components. Kuwabara (2015), for instance, studies a rather generalized trust radius with respect to the trustee (i.e., strangers) while taking a rather particularized radius with respect to the trustor (i.e., individuals) and adopting an intermediate radius with respect to the trust object (i.e., online market transactions). By contrast, Dinesen and Sønderskov (2015) study highly generalized trust es ("most people"), rather particularized trustors (individuals), and highly generalized trust objects ("most of the time").

For all these reasons, we urge trust scholars to avoid under-specification of their work and instead clearly position their studies within the three-dimensional space laid out in Figure 2. This expanded trust framework makes it clear that the radius of trust is neither binary nor onedimensional. We propose this framework not to pursue the virtue of nuance for its own sake

¹ In our discussion, we take the individual as the lowest level of analysis, although neuroscientists may drill down to the level of brain regions or even specific neurons where trust can exist (Krueger et al 2007).

(Healy 2017) but because we believe it can be intellectually productive. The framework not only helps to avoid ambiguity and confusion about terms but also underscores the notion that research on particularized and generalized trust should not be thought of as separate. Relevant differences do exist, but they are more gradual than previously assumed. The various forms of trust operate according to a commensurable logic, and we hope that recognizing this fact will bring together the two research streams that have largely existed in isolation (also see Sztompka 1999). Perhaps even more importantly, the framework directs attention to five sets of important research avenues that may have been ignored otherwise.

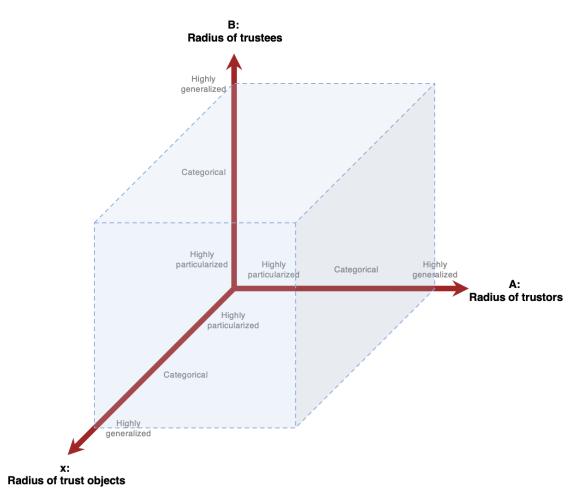


Figure 2 An extended framework of three trust radiuses

First, our framework opens the door for further scholarship on the *radius of trust as a variable* in its own right. Recent research shows that, if left unspecified in the data collection instrument, study participants may form their own assumptions about the pertinent radius of trust (Delhey et al 2011, Sturgis & Smith 2010). So far, however, we know relatively little about why this is the case. Why do some actors intuitively conceive of trust as more versus less generalized, and along which components of trust? In other words, beyond predicting variations in the dominant target of trust, can we also identify predictors of trust objects (the types of interactions people think about when queried about trust) and trustors (the most salient social level of analysis doing the trusting)?

Second, in addition to issues related to measurement invariance (or lack thereof), how much *variation* in trust levels can we observe on each of the three suggested components? In other words, just how particularized is trust in the real world, and when? Considering the trade-off between parsimony and precision that underlies the trust radius spectrum, one could argue that more particularized approaches to conceptualizing trust are only justified to the extent that notable variability exists with regard to how trust is placed. So, how variable (vs. consistent) are the levels of trust that are placed in different trustees, how much do levels of trust differ across trustors within a given social unit, how different are levels of trust placed in one domain vs. another, and can we predict such variations based on relevant contextual variables? One approach to this new stream of trust research could leverage the idea of consensus, which has recently been introduced to the study of legitimacy to identify the conditions conducive to various evaluators agreeing (vs. disagreeing) on the appropriateness of a legitimacy target (Haack et al 2020). Employing an analogous logic, trust researchers could endeavor to measure

and predict the degree of consensus in who is being trusted, across different trustors, and across domains (see de Jong et al 2020 for an initial application of this approach).

Third, we need more research into the *interrelationships* between more particularized and more generalized forms of trust. When reviewing the vast sociological literature on trust for this article, we encountered approximately equal numbers of studies focusing on either end of the trust radius continuum, but investigations capturing more than one form simultaneously and examining their links remain rare (also see Cook 2005). Most of the few studies that have been conducted in this vein propose a positively reinforcing relationship (e.g., Glanville & Paxton 2007, Glanville & Shi 2019), but Yamagishi and Yamagishi (1994) and Kuwabara et al (2007) indicate that trust can also be negatively connected along its radius when they suggest that, in terms of the trust target, Japanese people tend to have low levels of generalized trust but high levels of particularized trust. Similarly, the existence of strong ties in close trust networks—akin to highly particularized trust —has been proposed to constrain the development of more generalized trust (Latusek & Cook 2012).

Fourth, much could be gained from comparative studies *juxtaposing the predictive power* of various trust radiuses. Such studies could help us appreciate under what circumstances it may be sufficient to employ more generalized trust measures to predict relevant outcomes vs. when we need to move toward more particularized forms of trust (see Delhey et al 2011, Kuwabara et al 2014 for initial analyses along those lines). Answering this question would help us appreciate what would be missed were we to only study highly generalized trust to the exclusion of more categorical and particularized trust, and vice versa. Possibly, smaller trust radiuses might be most predictive of individual success outcomes (such as a person's economic well-being), whereas larger trust radiuses might be relatively more predictive of civic outcomes (such as community

engagement or social responsibility) (e.g., Gheorghiu et al 2009). Further, a smaller (larger) trust radius with respect to the trustor might predict behaviors when the partner is known (unknown) (McKnight et al 1998). Comparative positions such as these are more commonly assumed than put to the test. Beyond possible differences in magnitude, one might even expect to see the sign flip for certain effects. For instance, while highly particularized trust may increase relationship commitment, highly generalized trust may conversely decrease relationship commitment (Burke & Stets 1999, Yamagishi et al 1998), presumably because high trustors are more comfortable taking a chance on a new partner.

Finally, there is a need for more research into categorical trust. In an early discussion of categorical trust, Zucker (1986) described it as characteristic-based and pointed to family background, sex, and national origin as relevant social categories in trust production. At least two theoretical approaches speak to the generalization of trust across groups of trustees. The first is based on the idea of homophily (McPherson et al 2001) and posits that perceptions of common group membership and shared identity may underlie many trust judgments. This can be either due to in-group favoritism-which should make trustees behave more cooperatively toward members of their own group, elevating expected trustworthiness (Foddy & Yamagishi 2009)—or because a common background can help align expectations and facilitate coordination between exchange partners, which should foster trust (Lewicki & Bunker 1996). Second, trust can be the result of status ascribed to a particular social group, independent of whether the trustor is a member of this group as well. Often based on stereotypes, members of high-status groups are typically attributed a range of positive qualities (Berger et al 1980), which in turn may be associated with perceptions of elevated trustworthiness (Blue et al 2020). We suggest that future research should not only extend and start to disentangle these lines of theorizing (e.g., Simpson

et al 2007) but also expand the study of categorical trust from the radius of the trustee to that of the trustor and trust objects. What groups of trustors can be meaningfully clustered together, and what types of interactions do people generalize to when making trust decisions?

DISCUSSION

So far, we have highlighted promising research opportunities specifically at the intersection of particularized and generalized trust, but this is only one of many windows into extending sociological trust research. There is much more work to be done in order to truly understand how trust unfolds in social relations. We see at least four additional fruitful avenues for enlarging the sociological research agenda on trust.

First, our review prioritized rational accounts of trust over moralistic or affective trust theories, certainly not because we consider these other theoretical approaches irrelevant but simply because they are not as well-developed in extant sociological inquiry. It is important to acknowledge that the process of placing trust may not be fully rational. Trustors may assume a partner is trustworthy because they believe he or she is morally committed to being so. Trustors may also act on a gut feeling that is based on a variety of emotions and that leads them to believe the partner will be trustworthy. Unfortunately, however, moral and emotional theories of trust are severely undeveloped in sociology. We thus recommend turning to recent advances in adjacent disciplines to further enrich the sociology of trust.

One particularly influential trust model in the field of management scholarship is Mayer et al's (1995) ABI framework. At its core, this model posits that trustworthiness judgments rest on the trustor's perceptions of the trustee's ability, benevolence, and integrity. While benevolence is well-captured through the encapsulated interested account (reviewed in detail

above) and the concept of ability is consistent with Yamagishi and Yamagishi's (1994) careful discussion of confidence in competent role performance (also see Barber 1983, Deutsch 1960, Mizrachi et al 2007, Möllering 2006, Schnittker 2004), the notion of integrity in Mayer et al's (1995) model, and the subsequent management research that it spurred, will prove useful for sociologists to bring moral considerations to the study of trust. According to Mayer et al (1995, p. 719), integrity refers to the "perception that the trustee adheres to a set of principles that the trustor finds acceptable." Adopting a highly particularized approach with respect to the trustor and trustee, this definition stresses the relational nature of morality, in that it is not a fixed set of principles that underlies this trustworthiness dimension but rather one that is acceptable to both parties. A complementary perspective of the moral foundations of trust is offered by the political scientist Eric Uslaner (2002), who follows a more generalized approach and contends that trust may be viewed as a moral value in of itself; that is, we trust because we believe it is right to do so, independent of assessments of our counterpart's trustworthiness.² Such moralistic trust is thus viewed as unconditional and largely stable. No matter which approach is chosen, sociologists would gain much from elucidating the moral dimensions of trust. Two recent exemplars have begun to do just that. While Simpson et al (2013) show that people who make moral judgments subsequently tend to be more trustworthy and elicit greater trust, Robbins (2016) finds that a trustee's goodwill and virtuous dispositions may, in relative terms, produce even greater trust than encapsulated interests and social constraints. These initial findings underline the importance of a moral turn in sociological trust scholarship.

 $^{^{2}}$ Hardin (2002, 2006) makes a forceful argument that, while it may be moral to be trustworthy, it makes less sense to argue that is it moral to trust, since in various circumstances it is too risky to trust, especially in contexts in which distrust is clearly warranted.

Beyond the moral dimension, it may seem fairly obvious that affective processes influence how people evaluate their trust in another party (Burke & Stets 1999, Lewis & Weigert 1985, McAllister 1995), but thus far it is much less clear exactly how and for what types of emotions this influence unfolds (Barbalet 2009). A few recent investigations have started to address this gap. For instance, Irwin et al (2008) show that the relational emotion of sympathy tends to be salient in situations of high interdependence and in turn can foster trust. Moreover, Schilke et al (2015) report that the emotion of hope can be particularly pronounced among power-disadvantaged actors and may lead to elevated perceptions of trustworthiness and increased levels of trust. Along similar lines, Möllering (2001) and Pratt et al (2019) suggest that trust is regularly based on faith (rather than cognitive evaluations), especially in the absence of relevant information about the trustee's record in a given domain.

All these recent insights point to the notion that trust may not be purely cognitive and therefore also not entirely rational. However, although many trust theories are explicit about just how rational they assume actors to be, the situation-specific degree of rationality is rarely treated as a research question in and of itself. This is unfortunate, because Lewis and Weigert (1985) and Kramer (1999) (among others) insist that the rationality of trust can vary systematically in its bandwidth. So, just how calculative is trust, and under what circumstances can we expect (non-)calculative aspects to dominate? For instance, is it truly the case that calculativeness dominates in business transactions, whereas emotional and moralistic components of trust prevail in personal relationships, as assumed by Williamson (1993)? Further, is calculative trust more pronounced early on in a relationship, whereas it declines in importance over repeated interactions as familiarity develops (Lewicki & Bunker 1996, Schilke & Cook 2015)? We see

much potential for future research to address these and other questions pertaining to contextualized variations in the rationality of trust.

Second, another noteworthy insight from our review of the relevant research is that the vast majority of sociologists study trust as a dependent variable, while very few have investigated the consequences of trust (see Aassve et al 2016, Berigan & Irwin 2011, Kiyonari et al 2006 for such noteworthy exceptions). Scholars usually talk about the various virtues of trust in the introduction section, solely to justify the need to study its origins. There are two problems with this common practice (which we readily admit appears in some of our own investigations). First, some of the benefits are merely assumed and not underpinned by rigorous empirical research that could offer convergent evidence. Second, the bias of one-sidedly focusing on the benefits of trust conceals the fact that trust can also have a dark side (Gargiulo & Ertug 2006, Neal et al 2015, Portes 1998, Skinner et al 2014, Sztompka 1999). In fact, trust may have a variety of negative consequences. From the trustor's perspective, trust can be exploited, leading to emotional and economic harm. From the trustee's perspective, trust can be undesirable, as it often comes with unwelcome obligations to reciprocate. From a societal perspective, trust can be associated with exaggerated optimism and a lack of vigilance among citizens. As such, it often seems less desirable to maximize trust than to calibrate it to an optimal level (Schilke & Huang 2018). To this end, we need greater knowledge of the contingent effects of trust—both positive and negative.

Third, while much has been said about the trustor's trust, relatively less is known with regard to the trustee's trustworthiness (Hardin 2002). This is a significant omission, because trust tends to be closely linked to estimates of trustworthiness. Much would be gained from studies that switch vantage points and treat the trustee as their focal unit of analysis and study his or her

perceptions of the interaction and the trustor, which have been under-appreciated in extant sociological research.³ The insights obtained would in turn allow for comparisons between the trustors' predictions and the trustee's actual trustworthiness behavior, which could be used to assess trust accuracy (Fetchenhauer & Dunning 2010, Schilke & Huang 2018, Yamagishi 2001).

Fourth, in terms of empirical methods, there appears to be a near-perfect correspondence between studying highly generalized trust and using archival surveys on the one hand and focusing on highly particularized trust and running experiments on the other. Not only do we suggest abandoning this bifurcation in trust research—as discussed in detail above—but we also hope to see a greater number of trust studies employing more unconventional methods. Since methods and theory co-evolve, methodological innovations often go hand in hand with novel theoretical findings. For instance, we encourage more research on highly generalized components of trust adopting experiments (e.g., Hayashi et al 1999) and, vice versa, studies on highly particularized forms of trust leveraging the strengths of survey research (e.g., Burt & Knez 1995). The proliferation of the Internet has led to much change within each of these methodological domains, with lab-in-the-field experiments opening up entirely new research opportunities (Abrahao et al 2017, Parigi et al 2017) and primary surveys being more affordable to administer than ever before (Couper 2017). Research on trust is particularly well-suited to leverage these developments. In addition to these traditional approaches, we see real merit in the greater use of qualitative methods, which are surprisingly rare in sociological trust research (but see the important qualitative contributions by Guseva & Rona-Tas 2001, Khodyakov 2007, Li & Piezunka 2020, Mizrachi et al 2007, Uzzi 1997). Rounding off the methodological repertoire, we

³ See Kiyonari et al (2006), Simpson et al (2013), and Robbins (2016) for noteworthy exceptions. Also note that relevant work on the trustee's perspective and his/her trustworthiness has started to appear in economics (e.g., Ashraf et al 2006, Sutter & Kocher 2007) and political science (Levi & Stoker 2000).

also recommend greater use of simulations (Macy & Sato 2002, Macy & Skvoretz 1998), conversation analysis (Lindström 1994), and multi-method inquiries (Burke & Stets 1999, Gulati & Westphal 1999).

CONCLUSION

In this article, we have synthesized much of the burgeoning sociological literature on trust. Our contribution is threefold. First, we offer a comprehensive synopsis of the trust concept, its history, and its antecedents. This analysis shows that the study of trust can be traced back to the roots of sociology and is now essential to many of its subfields. Although there is much convergence in how trust is conceptualized in contemporary research, we also underscore the need for greater integration of scholarship on the more generalized and the more particularized components of trust. Moving forward, we need to build bridges across these research streams to share insights, avoid fragmentation, and ensure that work on trust maintains its important position in the sociological analysis of modern society. Second, we have proposed an integrated framework to further this pursuit. This framework builds on the notion of trust radiuses and acknowledges the gradual character of the generality of trust, the critical importance of intermediate forms of categorical trust, and the three-dimensional nature of trust along its key components—the trustor, the trustee, and the trust object. This framework should help avoid under-specification in future trust research while also pointing scholars to new research opportunities, including trust radius as a variable in its own right, the variability of trust across its components, the interrelationships and relative predictive power of more particularized and more generalized forms of trust, and categorical forms of trust. Finally, our review aims to spark interest in several other issues related to trust that have been largely neglected in extant

sociological scholarship. Specifically, we call for future research on the moral and affective aspects of trust, the positive and negative consequences of trust, the trustee and his or her trustworthiness as the focal object of study, and a variety of other topics. We also recommend using novel methods to approach these studies, which will direct researchers to uncover questions that escape more conventional approaches. Given that trust has become even more important in many ways during the recent global pandemic (i.e., trust in strangers, trust in family members and friends, trust in colleagues and fellow employees, trust in science, trust in local and national government, trust in the media, etc.), we hope that our review article stimulates future research on the many domains in which trust is significant and impactful in our lives.

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The authors are not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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LITERATURE CITED

Aassve A, Billari FC, Pessin L. 2016. Trust and fertility dynamics. Social Forces 95: 663-92

- Abascal M, Baldassarri D. 2015. Love thy neighbor? Ethnoracial diversity and trust reexamined. *American Journal of Sociology* 121: 722-82
- Abrahao B, Parigi P, Gupta A, Cook KS. 2017. Reputation offsets trust judgments based on social biases among Airbnb users. *Proceedings of the National Academy of Sciences* 114: 9848-53
- Arrow KJ. 1974. The limits of organization. New York, NY: W. W. Norton
- Ashraf N, Bohnet I, Piankov N. 2006. Decomposing trust and trustworthiness. *Experimental Economics* 9: 193-208
- Avnet T, Pham MT, Stephen AT. 2012. Consumers' trust in feelings as information. *Journal of Consumer Research* 39: 720-35

Axelrod R. 1985. The evolution of cooperation. New York, NY: Basic Books

Barbalet J. 2009. A characterization of trust, and its consequences. *Theory and Society* 38: 367-82

Barber B. 1983. The logic and limit of trust. New Brunswick, NJ: Rutgers University Press

- Berg J, Dickhaut J, McCabe K. 1995. Trust, reciprocity, and social history. *Games and Economic Behavior* 10: 122-42
- Berger J, Rosenholtz SJ, Zelditch M. 1980. Status organizing processes. *Annual Review of* Sociology 6: 479-508
- Berigan N, Irwin K. 2011. Culture, cooperation, and the general welfare. *Social Psychology Quarterly* 74: 341-60

- Bhattacharya R, Devinney TM, Pillutla MM. 1998. A formal model of trust based on outcomes. Academy of Management Review 23: 459-72
- Bijlsma-Frankema K, Costa AC. 2005. Understanding the trust-control nexus. *International Sociology* 20 259-82
- Bjørnskov C. 2008. Social trust and fractionalization: a possible reinterpretation. *European* Sociological Review 24: 271-83

Blau PM. 1964. Exchange and power in social life. New York,, NY: Wiley

- Blau PM. 2002. Reflections on a career as a theorist. In New directions in contemporary sociological theory, ed. J Berger, M Zelditch, pp. 345-57 Lanham, MD: Rowman & Littlefield
- Blue PR, Hu J, Peng L, Yu H, Liu H, Zhou X. 2020. Whose promises are worth more? How social status affects trust in promises. *European Journal of Social Psychology* 50: 189-206
- Bryk A, Schneider B. 2002. *Trust in schools: a core resource for improvement*. New York, NY: Russell Sage
- Burke PJ, Stets JE. 1999. Trust and commitment through self-verification. *Social Psychology Quarterly* 62: 347-66
- Burt RS. 2001. Bandwidth and echo: trust, information, and gossip in social networks. In *Networks and markets*, ed. JE Rauch, A Casella, pp. 30-74. New York, NY: Russell Sage

Burt RS, Knez M. 1995. Kinds of third-party effects on trust. Rationality and Society 7: 255-92

Cao J, Galinsky AD. 2020. The diversity-uncertainty-valence (DUV) model of generalized trust development. *Organizational Behavior and Human Decision Processes* 161: 49-64

- Cao Z, Lumineau F. 2015. Revisiting the interplay between contractual and relational governance: a qualitative and meta-analytic investigation. *Journal of Operations Management* 33-34: 15-42
- Cesarini D, Dawes CT, Fowler JH, Johannesson M, Lichtenstein P, Wallace B. 2008. Heritability of cooperative behavior in the trust game. *Proceedings of the National Academy of Sciences* 105: 3721-26
- Cheshire C, Gerbasi A, Cook KS. 2010. Trust and transitions in modes of exchange. *Social Psychology Quarterly* 73: 176-95
- Choi SYP, David R. 2012. Lustration systems and trust: evidence from survey experiments in the Czech Republic, Hungary, and Poland. *American Journal of Sociology* 117: 1172-201

Coleman JS. 1990. Foundations of social theory. Cambridge, MA: Harvard University Press

- Cook KS. 2005. Networks, norms, and trust: the social psychology of social capital. *Social Psychology Quarterly* 68: 4-14
- Cook KS. 2015. Institutions, trust, and social order. In *Order on the edge of chaos: social psychology and the problem of social order*, ed. EJ Lawler, S Thye, J Yoon, pp. 125-44. New York, NY: Cambridge University Press
- Cook KS, Cooper RM. 2003. Experimental studies of cooperation, trust and social exchange. In *Trust, reciprocity and gains from association: interdisciplinary lessons from experimental research*, ed. E Ostrom, J Walker, pp. 277-333. New York, NY: Russell Sage Foundation
- Cook KS, Hardin R. 2001. Norms of cooperativeness and networks of trust. In *Social norms*, ed. M Hechter, K-D Opp, pp. 327-47: Russell Sage Foundation

- Cook KS, Hardin R, Levi M. 2005a. *Cooperation without trust?* New York, NY: Russell Sage Foundation
- Cook KS, Yamagishi T, Cheshire C, Cooper R, Matsuda M, Mashima R. 2005b. Trust building via risk taking: a cross-societal experiment. *Social Psychology Quarterly* 68: 121-42
- Couper MP. 2017. New developments in survey data collection. *Annual Review of Sociology* 43: 121-45
- Dasgupta P. 1988. Trust as a commodity. In *Trust: making and breaking cooperative relations*, ed. D Gambetta, pp. 49-72. New York, NY: Blackwell
- de Jong B, Gillespie N, Williamson I, Gill C. 2020. Trust consensus within culturally-diverse teams: a multi-study investigation. *Journal of Management* forthcoming
- Delhey J, Newton K. 2003. Who trusts? The origins of social trust in seven societies. *European* Societies 5: 93-137
- Delhey J, Newton K. 2005. Predicting cross-national levels of social trust: global pattern or nordic exceptionalism? *European Sociological Review* 21: 311-27
- Delhey J, Newton K, Welzel C. 2011. How general is trust in 'most people'? Solving the radius of trust problem. *American Sociological Review* 76: 786-807
- Deutsch M. 1960. The effect of motivational orientation upon trust and suspicion. *Human Relations* 13: 123-39
- Dinesen PT, Sønderskov KM. 2015. Ethnic diversity and social trust: Evidence from the microcontext. *American Sociological Review* 80: 550-73
- DiPrete TA, Gelman A, McCormick T, Teitler J, Zheng T. 2011. Segregation in social networks based on acquaintanceship and trust. *American Journal of Sociology* 116: 1234-83

Durkheim E. 1984. The division of labor in society. New York, NY: Free Press

Erikson EH. 1964. Childhood and society. New York, NY: Norton

- Fehr E. 2009. On the economics and biology of trust. *Journal of the European Economic* Association 7: 235-66
- Fetchenhauer D, Dunning D. 2010. Why so cynical? Asymmetric feedback underlies misguided skepticism regarding the trustworthiness of others. *Psychological Science* 21: 189-93
- Foddy M, Yamagishi T. 2009. Group-based trust. In *Whom can we trust? How groups, networks, and institutions make trust possible*, ed. K Cook, M Levi, R Hardin, pp. 17-41. New York, NY: Russell Sage
- Freese J, Shostak S. 2009. Genetics and social inquiry. Annual Review of Sociology 35: 107-28
- Fukuyama F. 1995. *Trust: the social virtues and the creation of prosperity*. New York, NY: Free Press
- Gargiulo M, Ertug G. 2006. The dark side of trust. In *The handbook of trust research*, ed. R Bachmann, A Zaheer, pp. 165-86. Cheltenham: Edward Elgar
- Gheorghiu MA, Vignoles VL, Smith PB. 2009. Beyond the United States and Japan: testing
 Yamagishi's emancipation theory of trust across 31 nations. *Social Psychology Quarterly*72: 365-83
- Gilson L. 2003. Trust and the development of health care as a social institution. *Social Science & Medicine* 56: 1453-68
- Glanville JL, Andersson MA, Paxton P. 2013. Do social connections create trust? An examination using new longitudinal data. *Social Forces* 92: 545-62
- Glanville JL, Paxton P. 2007. How do we learn to trust? A confirmatory tetrad analysis of the sources of generalized trust. *Social Psychology Quarterly* 70: 230-42

- Glanville JL, Shi Q. 2019. The extension of particularized trust to generalized and out-group trust: the constraining role of collectivism. *Social Forces* 98: 1801-28
- Granovetter M. 1985. Economic action and social structure: the problem of embeddedness. *American Journal of Sociology* 91: 481-510
- Gulati R, Westphal JD. 1999. Cooperative or controlling? The effects of CEO-board relations and the content of interlocks on the formation of joint ventures. *Administrative Science Quarterly* 44: 473-506
- Guseva A, Rona-Tas A. 2001. Uncertainty, risk, and trust: Russian and American credit card markets compared. *American Sociological Review* 66: 623-46
- Haack P, Schilke O, Zucker LG. 2020. Legitimacy revisited: disentangling propriety, validity, and consensus. *Journal of Management Studies*. forthcoming
- Hardin R. 2002. Trust and trustworthiness. New York, NY: Russell Sage Foundation
- Hardin R. 2006. Trust. Cambridge: Polity
- Hayashi N, Ostrom E, Walker J, Yamagishi T. 1999. Reciprocity, trust, and the sense of control: A cross-societal study. *Rationality and Society* 11: 27-46
- Healy K. 2017. Fuck nuance. Sociological Theory 35: 118-27
- Hitlin S, Vaisey S. 2010. Handbook of the sociology of morality. New York, NY: Springer
- Hwang P, Burgers WP. 1997. Properties of trust: an analytical view. Organizational Behavior and Human Decision Processes 69: 67-73
- Irwin K, Mcgrimmon T, Simpson B. 2008. Sympathy and social order. *Social Psychology Quarterly* 71: 379-97
- Irwin K, Mulder L, Simpson B. 2014. The detrimental effects of sanctions on intragroup trust: comparing punishments and rewards. *Social Psychology Quarterly* 77: 253-72

- Khodyakov DM. 2007. The complexity of trust-control relationships in creative organizations: insights from a qualitative analysis of a conductorless orchestra. *Social Forces* 86: 1-22
- Kiyonari T, Yamagishi T, Cook KS, Cheshire C. 2006. Does trust beget trustworthiness? Trust and trustworthiness in two games and two cultures: a research note. *Social Psychology Quarterly* 69: 270-83
- Kollock P. 1994. The emergence of exchange structures: an experimental study of uncertainty, commitment, and trust. *American Journal of Sociology* 100: 313-45
- Kollock P. 1999. The production of trust in online markets. *Advances in Group Processes* 16: 99-123
- Kosfeld M, Heinrichs M, Zak PJ, Fischbacher U, Fehr E. 2005. Oxytocin increases trust in humans. *Nature* 435: 673-76
- Kosugi M, Yamagishi T. 1998. Generalized trust and judgments of trustworthiness (in Japanese with an English abstract). *Japanese Journal of Psychology* 69: 349-57
- Kramer RM. 1999. Trust and distrust in organizations: emerging perspectives, enduring questions. *Annual Review of Psychology* 50: 569-96
- Krueger F, McCabe K, Moll J, Kriegeskorte N, Zahn R, et al. 2007. Neural correlates of trust. *Proceedings of the National Academy of Sciences* 104: 20084-89
- Kuwabara K. 2015. Do reputation systems undermine trust? Divergent effects of enforcement
 type on generalized trust and trustworthiness. *American Journal of Sociology* 120: 1390428
- Kuwabara K, Vogt S, Watabe M, Komiya A. 2014. Trust, cohesion, and cooperation after early versus late trust violations in two-person exchange: the role of generalized trust in the United States and Japan. *Social Psychology Quarterly* 77: 344-60

- Kuwabara K, Willer R, Macy MW, Mashima R, Terai S, Yamagishi T. 2007. Culture, identity, and structure in social exchange: a web-based trust experiment in the United States and Japan. *Social Psychology Quarterly* 70: 461-79
- Larson A. 1992. Network dyads in entrepreneurial settings: a study of the governance of exchange relationships. *Administrative Science Quarterly* 37: 76-104
- Larzelere RE, Huston TL. 1980. The dyadic trust scale: Toward understanding interpersonal trust in close relationships. *Journal of Marriage and the Family* 42: 595-604

Latusek D, Cook KS. 2012. Trust in transitions. Kyklos 65: 512-25

- Levi M, Stoker L. 2000. Political trust and trustworthiness. *Annual Review of Political Science* 3: 475-507
- Lewicki RJ, Bunker BB. 1996. Developing and maintaining trust in work relationships. In *Trust in organizations: frontiers of theory and research*, ed. RM Kramer, TR Tyler, pp. 114-39. Thousand Oaks, CA: Sage
- Lewicki RJ, McAllister DJ, Bies RJ. 1998. Trust and distrust: new relationships and realities. Academy of Management Review 23: 438-58
- Lewis JD, Weigert A. 1985. Trust as a social reality. Social Forces 63: 967-85
- Lewis JD, Weigert AJ. 2012. The social dynamics of trust: theoretical and empirical research, 1985-2012. *Social Forces* 91: 25-31
- Li AN, Tan HH. 2013. What happens when you trust your supervisor? Mediators of individual performance in trust relationships. *Journal of Organizational Behavior* 34: 407-25
- Li JB, Piezunka H. 2020. The uniplex third: enabling single-domain role transitions in multiplex relationships. *Administrative Science Quarterly* 65: 314-58

- Li Y, Pickles A, Savage M. 2005. Social capital and social trust in Britain. *European* Sociological Review 21: 109-23
- Lin N, Cook KS, Burt RS. 2001. *Social capital: theory and research*. New Brunswick, NJ: Transaction Publishers
- Lindström A. 1994. Identification and recognition in Swedish telephone conversation openings. Language in Society 23: 231-52

Luhmann N. 1979. Trust and power. Chichester: Wiley

- Macy MW, Sato Y. 2002. Trust, cooperation, and market formation in the US and Japan. *Proceedings of the National Academy of Sciences* 99: 7214-20
- Macy MW, Skvoretz J. 1998. The evolution of trust and cooperation between strangers: a computational model. *American Sociological Review* 63: 638-60
- Malhotra D, Murnighan JK. 2002. The effects of contracts on interpersonal trust. *Administrative Science Quarterly* 47: 534-59
- Marschall MJ, Stolle D. 2004. Race and the city: neighborhood context and the development of generalized trust. *Political Behavior* 26: 125-53
- Mayer RC, Davis JH, Schoorman FD. 1995. An integrative model of organizational trust. Academy of Management Review 20: 709-34
- McAllister DJ. 1995. Affect- and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academy of Management Journal* 38: 24-59
- McEvily B, Zaheer A, Soda G. 2020. Network trust. In *Understanding trust in organizations: a multilevel perspective*, ed. N Gillespie, A Fulmer, RJ Lewicki. London: Routledge
- McKnight DH, Cummings LL, Chervany NL. 1998. Initial trust formation in new organizational relationships. *Academy of Management Review* 23: 473-90

- McPherson M, Smith-Lovin L, Cook JM. 2001. Birds of a feather: homophily in social networks. Annual Review of Sociology 27: 415-44
- Messick DM, Wilke H, Brewer MB, Kramer RM, Zemke PE, Lui L. 1983. Individual adaptations and structural change as solutions to social dilemmas. *Journal of personality and social psychology* 44: 294-309

Misztal BA. 1996. Trust in modern societies. Cambridge, United Kingdom: Blackwell

- Mizrachi N, Drori I, Anspach RR. 2007. Repertoires of trust: the practice of trust in a multinational organization amid political conflict. *American Sociological Review* 72: 143-65
- Möllering G. 2001. The nature of trust: from Georg Simmel to a theory of expectation, interpretation and suspension. *Sociology* 35: 403-20

Möllering G. 2006. Trust: reason, routine, reflexivity. Oxford: Elsevier

- Molm LD, Collett JL, Schaefer DR. 2007a. Building solidarity through generalized exchange: a theory of reciprocity. *American Journal of Sociology* 113: 205-42
- Molm LD, Melamed D, Whitham MM. 2013. Behavioral consequences of embeddedness: effects of the underlying forms of exchange. *Social Psychology Quarterly* 76: 73-97
- Molm LD, Schaefer DR, Collett JL. 2007b. The value of reciprocity. *Social Psychology Quarterly* 70: 199-217
- Molm LD, Takahashi N, Peterson G. 2000. Risk and trust in social exchange: an experimental test of a classical proposition. *American Journal of Sociology* 105: 1396-427
- Molm LD, Whitham MM, Melamed D. 2012. Forms of exchange and integrative bonds: effects of history and embeddedness. *American Sociological Review* 77: 141-65

- Morgan RM, Hunt SD. 1994. The commitment-trust theory of relationship marketing. *Journal of Marketing* 58: 20-38
- Neal TMS, Shockley E, Schilke O. 2015. The 'dark side' of institutional trust. In Interdisciplinary perspectives on trust: towards theoretical and methodological integration, ed. E Shockley, TMS Neal, BH Bornstein, LM Pytlik Zillig, pp. 177-91. New York, NY: Springer
- Ostrom E. 1998. A behavioral approach to the rational choice theory of collective action: Presidential address, American Political Science Association, 1997. *American Political Science Review* 92: 1-22
- Parigi P, Santana JJ, Cook KS. 2017. Online field experiments: studying social interactions in context. *Social Psychology Quarterly* 80: 1-19

Parsons T. 1937. The structure of social action. New York, New York: McGraw Hill

- Pavlou PA, Gefen D. 2004. Building effective online marketplaces with institution-based trust. Information Systems Research 15: 37-59
- Paxton P. 1999. Is social capital declining in the United States? A multiple indicator assessment. *American Journal of Sociology* 105: 88-127
- Paxton P. 2007. Association memberships and generalized trust: a multilevel model across 31 countries. *Social Forces* 86: 47-76
- Paxton P, Glanville JL. 2015. Is trust rigid or malleable? A laboratory experiment. *Social Psychology Quarterly* 78: 194-204
- Poppo L, Zhou KZ, Ryu S. 2008. Alternative origins to interorganizational trust: an interdependence perspective on the shadow of the past and the shadow of the future. *Organization Science* 19: 39-55

- Portes A. 1995. The economic sociology of immigration: essays on networks, ethnicity, and entrepreneurship. New York, NY: Russell Sage
- Portes A. 1998. Social capital: its origins and applications in modern sociology. *Annual Review* of Sociology 24: 1-24
- Powell WW. 1996. Trust-based forms of governance. In *Trust in organizations: frontiers of theory and research*, ed. RM Kramer, TR Tyler, pp. 51-67. Thousand Oaks, CA: Sage Publications
- Pratt MG, Lepisto DA, Dane E. 2019. The hidden side of trust: supporting and sustaining leaps of faith among firefighters. *Administrative Science Quarterly* 64: 398-434
- Przepiorka W, Aksoy O. forthcoming. Does herding undermine the trust enhancing effect of reputation? An empirical investigation with online-auction data. *Social Forces*
- Putnam RD. 1995. Bowling alone: America's declining social capital. *Journal of Democracy* 6: 65-78
- Putnam RD. 2000. *Bowling alone: the collapse and revival of American community*. New York, NY: Simon and Schuster
- Ragin CC. 1987. *The comparative method: moving beyond qualitative and quantitative strategies*. Berkeley, CA: University of California Press
- Reimann M, Schilke O, Cook KS. 2017. Trust is heritable, whereas distrust is not. *Proceedings* of the National Academy of Sciences 114: 7007-12
- Robbins BG. 2016. Probing the links between trustworthiness, trust, and emotion: evidence from four survey experiments. *Social Psychology Quarterly* 79: 284-308
- Robinson RV, Jackson EF. 2001. Is trust in others declining in America? An age-period-cohort analysis. *Social Science Research* 30: 117-45

- Robinson SL. 1996. Trust and breach of the psychological contract. *Administrative Science Quarterly* 41 574-99
- Rompf SA. 2015. *Trust and rationality: an integrative framework for trust research*. Wiesbaden: Springer
- Ross CE, Mirowsky J, Pribesh S. 2001. Powerlessness and the amplification of threat: neighborhood disadvantage, disorder, and mistrust. *American Sociological Review* 66: 568-91
- Rotenberg KJ. 1995. The socialisation of trust: parents' and children's interpersonal trust. International Journal of Behavioral Development 18: 713-26
- Rotter JB. 1971. Generalized expectancies for interpersonal trust. *American Psychologist* 26: 443-52
- Rotter JB. 1980. Interpersonal trust, trustworthiness, and gullibility. *American Psychologist* 35: 1-7
- Rousseau DM, Sitkin SB, Burt RS, Camerer C. 1998. Not so different after all: a cross-discipline view of trust. *Academy of Management Review* 23: 393-404
- Rydgren J, Sofi D, Hällsten M. 2013. Interethnic friendship, trust, and tolerance: findings from two north Iraqi cities. *American Journal of Sociology* 118: 1650-94
- Schilke O, Cook KS. 2015. Sources of alliance partner trustworthiness: integrating calculative and relational perspectives. *Strategic Management Journal* 36: 276-97
- Schilke O, Huang L. 2018. Worthy of trust? How brief interpersonal contact affects trust accuracy. *Journal of Applied Psychology* 103: 1181-97
- Schilke O, Reimann M, Cook KS. 2013. Effect of relationship experience on trust recovery following a breach. *Proceedings of the National Academy of Sciences* 110: 15236-41

- Schilke O, Reimann M, Cook KS. 2015. Power decreases trust in social exchange. *Proceedings* of the National Academy of Sciences 112: 12950-55
- Schilke O, Wiedenfels G, Brettel M, Zucker LG. 2017. Interorganizational trust production contingent on product and performance uncertainty. *Socio-Economic Review* 15: 307-30
- Schnittker J. 2004. Social distance in the clinical encounter: interactional and sociodemographic foundations for mistrust in physicians. *Social Psychology Quarterly* 67: 217-35

Simmel G. 1950. The sociology of Georg Simmel. New York, NY: Free Press

Simmel G. 1978. The Philosophy of Money. London, United Kingdom: Routledge & Kegan Paul

- Simpson B. 2006. Social identity and cooperation in social dilemmas. *Rationality and Society* 18: 443-70
- Simpson B, Harrell A, Willer R. 2013. Hidden paths from morality to cooperation: moral judgments promote trust and trustworthiness. *Social Forces* 91: 1529-48
- Simpson B, McGrimmon T, Irwin K. 2007. Are blacks really less trusting than whites? Revisiting the race and trust question. *Social Forces* 86: 525-52
- Simpson B, Willer R. 2015. Beyond altruism: sociological foundations of cooperation and prosocial behavior. *Annual Review of Sociology* 41: 43-63
- Skinner D, Dietz G, Weibel A. 2014. The dark side of trust: when trust becomes a 'poisoned chalice'. *Organization* 21: 206-24
- Smith CM, Papachristos AV. 2016. Trust thy crooked neighbor: multiplexity in Chicago organized crime networks. *American Sociological Review* 81: 644-67

Smith SS. 2010. Race and trust. Annual Review of Sociology 36: 453-75

Stepanikova I, Mollborn S, Cook KS, Thom DH, Kramer RM. 2006. Patients' race, ethnicity, language, and trust in a physician. *Journal of Health and Social Behavior* 47: 390-405

- Stolle D. 2001. Clubs and congregations: the benefits of joining an association. In *Trust in society*, ed. KS Cook, pp. 202-44. New York, NY: Russell Sage
- Sturgis P, Read S, Hatemi PK, Zhu G, Trull T, et al. 2010. A genetic basis for social trust? *Political Behavior* 32: 205-30
- Sturgis P, Smith P. 2010. Assessing the validity of generalized trust questions: what kind of trust are we measuring? *International Journal of Public Opinion Research* 22: 74-92
- Sutter M, Kocher MG. 2007. Trust and trustworthiness across different age groups. *Games and Economic Behavior* 59: 364-82
- Swärd A. 2016. Trust, reciprocity, and actions: the development of trust in temporary interorganizational relations. *Organization Studies* 37: 1841-60
- Sztompka P. 1999. Trust: a sociological theory. Cambridge: Cambridge University Press
- Telser LG. 1980. A theory of self-enforcing agreements. Journal of Business 53: 27-44
- Uslaner EM. 2002. The moral foundation of trust. Cambridge, UK: Cambridge University Press
- Uzzi B. 1997. Social structure and competition in interfirm networks: the paradox of embeddedness. *Administrative Science Quarterly* 42: 35-67
- van Hoorn A. 2014. Trust radius versus trust level: radius of trust as a distinct trust construct. *American Sociological Review* 79: 1256-59
- Weber M. 1951 [1915]. The religion of China. New York, New York: Free Press
- Welch MR, Sikkink D, Loveland MT. 2007. The radius of trust: religion, social embeddedness and trust in strangers. *Social Forces* 86: 23-46
- Williamson OE. 1993. Calculativeness, trust, and economic organization. *Journal of Law and Economics* 36: 453-86

- Wu C, Wilkes R. 2016. Durable power and generalized trust in everyday social exchange. *Proceedings of the National Academy of Sciences* 113: E1417
- Yamagishi T. 2001. Trust as a form of social intelligence. In *Trust in society*, ed. KS Cook, pp. 121-47. New York, NY: Russell Sage Foundation

Yamagishi T. 2011. Trust: the evolutionary game of mind and society. Tokyo: Springer

- Yamagishi T, Cook KS, Watabe M. 1998. Uncertainty, trust, and commitment formation in the United States and Japan. *American Journal of Sociology* 104: 165-94
- Yamagishi T, Yamagishi M. 1994. Trust and commitment in the United States and Japan. *Motivation and Emotion* 18: 129-66
- Yenkey CB. 2018. Fraud and market participation: social relations as a moderator of organizational misconduct. *Administrative Science Quarterly* 63: 43-84
- Ziller C. 2015. Ethnic diversity, economic and cultural contexts, and social trust: cross-sectional and longitudinal evidence from European regions, 2002–2010. *Social Forces* 93: 1211-40
- Zucker LG. 1986. Production of trust: institutional sources of economic structure, 1840-1920. *Research in Organizational Behavior* 8: 53-111
- Zucker LG, Darby MR, Brewer MB, Peng Y. 1996. Collaboration structure and information dilemmas in biotechnology: organizational boundaries as trust production. In *Trust in organizations: frontiers of theory and research*, ed. RM Kramer, TR Tyler, pp. 90-113. Thousand Oaks, CA: Sage