Consensus on Conceptualizations and Definitions of Trust: Are We There Yet?

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> *A science without definitions of basic constructs would be chaotic. Definitions identify fields of inquiry by setting their boundaries and distinguishing their questions from questions that deal with other phenomena. Precise definitions also foster valid measurement. They provide a framework that enhances theory development and empirical research in a community of scientists.*
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> —Eagly and Chaiken (2007, p. 583)

To prepare for the 2014 Nebraska Symposium Workshop on Trust and Confidence, the organizers sent a list of ten topics to workshop participants and asked them to rank their top three choices of topics for breakout sessions. The topic receiving the highest average ranking was *definitions*, so perhaps it is no surprise that definitions were a major theme of both the workshop (e.g., see Hamm et al., 2016; Jackson & Gau, 2016) and the Nebraska Symposium on Motivation that preceded the workshop (see especially Li, 2015; Schoorman, Wood, & Breuer, 2015).

The above quote from Eagly and Chaiken (2007) suggests this attentiveness to definitions is warranted. Definitions facilitate advances in research by clarifying constructs, promoting the careful and precise use of terms, setting boundaries around what is and is not being studied, helping to avoid misunderstandings, and providing a guide for appropriate operationalization and measurement (e.g., Cao, 2015; Dietz & Den Hartog, 2006; Fink, Harms, & Möllering, 2010; Locke, 2003). Beyond such benefits, another reason workshop participants were likely interested in trust definitions is that consensus appears to be lacking: Complaints about the

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lack of an agreed upon definition or even conceptualization[1] of trust have been widespread, recurrent, and long standing (e.g., Andaleeb, 1992; Castaldo, Premazzi, & Zerbini, 2010; Golembiewski & McConkie, 1975; Hosmer, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998; Vigoda-Gadot & Mizrahi, 2014).

Of course, coming up with precise definitions is hard work—so hard, in fact, that people occasionally question whether the construct of "definition" even exists (Fodor, Garrett, Walker, & Parkes, 1980). This may account for similarly long-standing complaints about the lack of consensus around definitions of many common psychological constructs, such as norms (Cancian, 1975; Gibbs, 1965; Interis, 2011), attitudes (Eagly & Chaiken, 2007; Gawronski, 2007), motivation and goals (Elliot & Niesta, 2009; Hasan & Hynds, 2014; Kleinginna & Kleinginna, 1981b; Winter, John, Stewart, Klohnen, & Duncan, 1998), and emotion and affect (Izard, 2010; Kleinginna & Kleinginna, 1981a; Russell, 2012; Russell & Barrett, 1999), as well as other constructs commonly referenced in trust definitions, such as vulnerability and risk (Aven, 2014; Haimes, 2006, 2009; Scholz, Blumer, & Brand, 2012; Schroeder & Gefenas, 2009). In our view, trust is not any worse off than these other constructs. In fact, a lot of work has already gone into attempting to clarify conceptualizations and definitions of trust, as reflected in the number of comprehensive and disciplinary or multidisciplinary reviews that have been conducted and will be discussed in this chapter (see also Bornstein & Tomkins, 2015).

In the present chapter, we began by asking "are we there yet?" when it comes to the field potentially agreeing on a conceptualization and definition of trust. Trust researchers are more commonly stating that a consensus may be emerging around trust as a psychological state of willingness to be vulnerable based on the trustor's positive expectations of the trustee (see, e.g., Hamm et al., 2016; Möllering, 2005; Rousseau et al., 1998; Schoorman et al., 2015). To assess whether we, as a field, have achieved consensus, we sought to understand the consensus (or lack of consensus) based on the reasons researchers gave for differing definitions and conceptualizations. To that end, we reviewed a number of existing reviews of trust definitions and conceptualizations from different fields.

We describe the themes gleaned from our "review of reviews" and discuss the most common "essences" of trust conceptualizations, some of the disagreements that have occurred around the precise definitional boundaries delineating what is and is not trust, as well as the potential reasons for those disagreements. We also briefly review a number of proposed solutions to the "problem" of variability in trust conceptualizations and definitions. We then return to our original question: "Are we there yet?" when it comes to agreeing on the conceptualization and definition of trust. We argue that despite the disagreements we review, we think we might

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[1] Conceptualizations and definitions are not the same thing; however, they have similar purposes in that they both serve to help researchers consider what something is and is not. Therefore, in this chapter we are interested in both conceptualizations—the general ideas about the central "essence" of trust—as well as definitions—the specific and precise boundaries that delineate what is or is not trust. Because distinguishing between definitions and constructs is not the main point of this chapter, we use the terms relatively interchangeably.

be closer than the long-standing complaints make it seem—but that consensus is not quite complete. While there does seem to be considerable support for conceptualizing trust as a psychological state (e.g., as defined by Mayer, Davis, & Schoorman, 1995; Rousseau et al., 1998), there also exists an alternative consensus around the need for a "set" of trust definitions. Indeed, most proposed solutions to trust's conceptual and definitional issues involve arguing that the field would benefit from considering trust as a process (trust-as-process) that encompasses multiple "trusting" concepts (e.g., trusting dispositions, attitudes, beliefs, expectations, intentions, choices, behaviors, and so on). We argue that whether or not the field eventually declares consensus around one definition of trust, the field would still benefit from greater attention to definitional distinctions between specific trust concepts that are part of trust-as-process.

Trust: Common Essences and Variable Boundaries

If one peruses past complaints about the definition and conceptualization of trust, the most frequent complaints include lack of consensus and vagueness or imprecision. It has been frequently mentioned that "To date, we have had no universally accepted scholarly definition of trust" (Rousseau et al., 1998, p. 394) (see also, e.g., Bijlsma-Frankema & Costa, 2005, p. 261; McEvily, 2011, p. 1266). Regarding messy imprecision, Metlay (1999) notes, "…the notion of trust comes in so many flavors, packages, and subspecies that it seems to have been swallowed up in a conceptual quagmire" (p. 100; see also Castelfranchi & Falcone, 2010; Dietz & Den Hartog, 2006, p. 558). Complaints about the "elusive notion of trust" (Gambetta, 1988a, p. ix) continue in contemporary work. For example, Vigoda-Gadot and Mizrahi (2014) write, "It is hard to find a generally accepted working definition of trust and its measurement" and, "trust is a concept that is widely used in the academic and popular discourse on politics, economics and society, but it is plagued by conceptual vagueness" (p. 3; see Li, 2015 for similar complaints).

In an attempt to understand, clarify, and potentially resolve disagreements about the nature and definition of trust, a number of reviews have been conducted within business, management, and organizational science (e.g., Bigley & Pearce, 1998; Burke, Sims, Lazzara, & Salas, 2007; Castaldo et al., 2010; Dietz & Den Hartog, 2006; Fulmer & Gelfand, 2012; Hosmer, 1995; Kramer, 1999; Lane, 1998; Lewicki, McAllister, & Bies, 1998; Mayer et al., 1995; Möllering, Bachmann, & Hee Lee, 2004); psychology and sociology (e.g., Bijlsma-Frankema & Costa, 2005; Frederiksen, 2012; Khodyakov, 2007; Lewis & Weigert, 2012); political science (e.g., Bouckaert, Van de Walle, Maddens, & Kampen, 2002; Hardin, 2006; Kong, 2014; Levi & Stoker, 2000; Nannestad, 2008) and economics (e.g., Bachmann, 2011; Williamson, 1993); other areas such as cognitive and computer science (e.g., Castelfranchi & Falcone, 2010; McKnight & Chervany, 2001a) and risk management (e.g., Earle, 2010); as well as from explicitly interdisciplinary perspectives (e.g., Cao, 2015; Earle, Siegrist, & Gutscher, 2007; Gambetta, 1988b; Li, 2007;

Table 1 Examples of "essences" of trust within a sampling of reviews of trust definitions and conceptualizations

Review	Actors: trustor/trustee interdependence	Context: trustor goals, vulnerability, risk	Experience: intrinsic volition/agency	Other essences: forms and bases
Castelfranchi and Falcone (2010) (computational cognitive science)	Trust is relational and exists between a trustor and trustee	Trustor has a goal; there exists risk that the trustee will act inconsistent with goal	Behaviors and decisions are *intentional*	*Mental state* toward trustee is positive and forms the basis of trust as a *decision*, which is the basis for trust as *action*
Castaldo et al. (2010) (business relationships)	Trustor relies upon trustee	Trustor has objectives and context includes uncertainty, risk, and vulnerability	"…trustor…*voluntarily* puts himself in a vulnerable situation" (p. 663, emphases added)	Discusses the 'conceptual nature of trust' involving trust as "a *reliance*, a *belief*, a *willingness*, an *expectation*, a *confidence*, and an *attitude*" (p. 663)
Dietz and Den Hartog (2006) (organizations and management)	Trust has a target, although the precise target and its measurement vary	Vulnerability is evoked while defining trust, and risk is required as part of the definition (p. 563)	"Genuine state" of trust requires *intention* to act (p. 559)	Forms include trust as *belief, decision,* and *action*; the five sources/bases also include trustor *dispositions* and macro (e.g., institutional) factors
Fink et al. (2010) (business, organizations)	Both corridors of trust definitions involve an "interaction partner"	One "corridor" of trust definitions emphasizes risk and uncertainty as conditions for trust	Intrinsic volition is implied rather than explicated	One "corridor" of definitions emphasizes positive confident *expectations* as a mechanism; review also references *actions, attitudes*
Levi and Stoker (2000) (political science)	Trust is relational and involves a trustor and trustee	Trust involves vulnerability	Intrinsic volition is implied rather than explicated	Trust is a positive *judgment* that may be graded or dichotomous
Li (2007) (management)	Trust involves both a trustor and trustee in relationship; "trust is related only to the special risk of depending on others" (p. 426)	Trustor uncertainty and vulnerability are two of the quintessential dimensions in trust definitions and are conditions of trust	"Willingness" includes a *desire* or *intention* to place trust, and trust-as-choice is not due to extrinsic controls	Both positive expectation (attitude) and willingness/intention/choice are involved in trust as a process and are functions of trust

Mayer et al. (1995) (organizations)	A trustor trusts a trustee, thus depends upon the trustee	Risk is part of the behavioral manifestation of trust	"*Willingness*" to be vulnerable implies intrinsic volition	Trust is a *psychological state* based on positive *expectations* of the trustee; there also exist *behavioral manifestations*; and *dispositional* trust is a source
McKnight and Chervany (1996) (computer science, online transactions)	Dependence is upon trustee, beliefs are about trustee; but trustee varies depending on type of trust (institutional, interpersonal, dispositional trust)	Trust is a general willingness to depend, rather than an action in a specific situation; but trust still acknowledges "negative consequences are possible" (p. 34)	"*Willingness*" to depend implies intrinsic volition	Trust has been defined as a disposition, structure, belief/expectancy, affect/attitude, intention, and behavior
Rousseau et al. (1998) (economics, psychology, sociology)	Conditions for trust to arise include interdependence of trustor and trustee	Conditions for trust to arise include a context of risk	Critical components of trust include "*willingness*" to be vulnerable	Critical components of trust include positive confident *expectations* as well as *willingness* to be vulnerable

Table 2 Variations in (sometimes conflicting) proposed "boundaries" on the essential essences of trust

Actors: trustor/trustee interdependence	Context: trustor goals, vulnerability, risk	Experience: intrinsic volition/agency	Other essences: forms and bases
• Reciprocal trust is not required for the phenomenon to be "trust" (Schoorman et al., 2015)	• Risk only applies to trust-as-behavior; there is no "risk" in trust-as-belief or even trust-as-willingness (Hardin, 2002; Mayer et al., 1995)	• Volition and choice apply only to trust-as-behavior, not to trust-as-belief—you cannot choose how the evidence compels you (Hardin, 2002)	• Trust should be conceptualized as an underlying psychological construct (e.g., willingness, evaluations, expectations, knowledge, beliefs, intentions) (Hardin, 2002; Mayer et al., 1995; Rousseau et al., 1998)
• Reciprocal trust is inherent to "trust building" (Li, 2015), or trust is inherently reciprocal (Lewis & Weigert, 1985)	• Risk must be consciously perceived and other options considered or the phenomenon is not trust (it is confidence) (Giddens, 1996; Luhmann, 1988; Mayer et al., 1995)	• The trustor must experience an internally generated (intrinsic) sense of "willingness" to rely upon the trustee, or it is not trust (see Table 1)	• Trust should be conceptualized as an overt choice, action, or behavior (Hassell, 2005; Li, 2015)
• Shallow interdependence that involves "deterrence-based" or completely "calculative" trust does not really involve trust (Dietz & Den Hartog, 2006; Li, 2015)	• Risk must exist in the situation at some minimum level, or reliance on the trustor is not trust. At the very least, risk must be in the situation prior to or separate from any reductions in risk due to characteristics of the trustee and reliance upon the trustee (Mayer et al., 1995)	• The trustee must be perceived by the trustor as acting volitionally; otherwise, the trustor is trusting external constraints, *not* the so-called trustee (Rousseau et al., 1998; Sitkin & Roth, 1993)	• Trust is primarily or solely cognitive (Hardin, 2006)
• Evaluation of a target's general characteristics (e.g., ability, integrity) is not relationship specific and thus not relational enough (Li, 2015)	• Decreasing risk is not the same as increasing trust. Decreasing risk simply removes the need for trust (Schoorman et al., 2015)	• "Trust should be reframed as a leap of hope to enhance transaction value by taking advantage of vulnerability," which makes trust an active, two-way, opportunity, rather than a passive, one-way mechanism for reducing vulnerability (Li, 2015)	• Trust is sometimes or always affective or emotional (McAllister, 1995; Möllering, 2006)

• If trust requires knowing the trustee to have character, moral commitment, or to encapsulate one's interests, then institutions like government are not really trusted (Hardin, 2013)	• Trust must be conceptualized as *more than or "beyond"* the outcome of considerations of trustee trustworthiness and calculative considerations of potential risks and benefits. For example, it may be based on opportunities for enhanced relationships or transactions or leap of faith or hope (Li, 2015; Möllering, 2001)
• Targets of trust must be specific and consistent. Measures must not mix targets (Dietz & Den Hartog, 2006)	• Trust must be based on (caused by, stem from) *positive expectations* of the trusted entity (trustee) (Mayer et al., 1995; Rousseau et al., 1998)
	• Trust is based on assessments of morality and shared values and expectations about the future, not examination of past performance and assessments of competence (the latter is confidence) (Earle & Siegrist, 2006)
	• Trust may also be based on institutional factors (Bachmann, 2011), reputation, and trustor propensities and attitudes (Dietz & Den Hartog, 2006)

Möllering, 2006; Rousseau et al., 1998). While not all of these reviews are solely focused on definitions of trust, all have grappled with the variety of definitions in the literature—typically by looking for evidence of a consensus-based "essence" of trust (e.g., Castaldo et al., 2010; Castelfranchi & Falcone, 2010; Earle et al., 2007; Rousseau et al., 1998) and/or outlining and organizing the variability of trust definitions and conceptualizations (e.g., Dietz & Den Hartog, 2006; Fink et al., 2010).

Examination of consensus-seeking portions of reviews suggests a number of common themes. As shown in Table 1, many or most reviews converge on the idea that trust involves a trustor (subject) and trustee (object) that are somehow interdependent; involves a situation containing risks for the trustor (which also implies the trustor has goals); is experienced by the trustor as voluntary (implying a sense of autonomy, agency, and intrinsic motivation); and includes (or excludes) different types, forms, or sources of trust concepts, some of which may form the bases of others and many of which involve or relate to positive evaluations or expectations. Furthermore, as can be seen in Table 2, within each of these common themes are instances of variability and disagreement over what should represent the "boundaries" of trust. In the following sections, we discuss each of these themes, including their "common essences" and the variations and disagreements about boundaries around those essences, in more detail.

Actors: The Trustor, Trustee, and Their Interdependence

Common essence: Subject, object, and relationship. Just as attitudes always have an object that is evaluated (Eagly & Chaiken, 2007), it is usually explicitly or implicitly noted that trust also requires an object or set of objects to evaluate, form expectations toward, or to be willing to rely upon (e.g., Hardin, 2006). The importance of a trustor having a target *to* trust is illustrated by the frequency with which most definitions include reference to "another," "target," "somebody," "actor," and so on, when defining trust. For example, Castaldo et al. (2010) examined unique definitions of trust in research on marketing relationships and found that the most frequently mentioned terms showed "a recurring focus on the subjects that trust links within a relationship, namely the trustor and trustee" (p. 659). Similarly, many researchers take pains to point out in their definition of trust that trust involves one person relying on another entity (e.g., Bachmann, 2011; Frederiksen, 2012), and/or that evaluations and expectations are directed toward a potential trustee (e.g., Castelfranchi & Falcone, 2010; Fink et al., 2010; Khodyakov, 2007; Rousseau et al., 1998). Even when one is talking about a generalized, dispositional, or propensity to trust, it is presumed that others (e.g., other people or institutions) are targets of trust (Dietz & Den Hartog, 2006), even if trust in them is generalized across "social and relationship-specific information" (Frazier, Johnson, & Fainshmidt, 2013, p. 77).

In addition to the requirement that trust has both a trustor and trustee, it is nearly ubiquitous for researchers to argue that trust requires the trustor and trustee have some form of interdependence or relationship (e.g., Lane, 1998; Rousseau et al.,

1998). As Levi and Stoker (2000) note, "trust is relational" (p. 476). Although there have been complaints that the relational aspects of trust are not explicated well enough (e.g., Li, 2015), dependence or interdependence between the trustor and trustee is usually at least implied or assumed. In some cases, the relational aspect of trust is explicated by mentioning "dependence" (Hosmer, 1995; Lane, 1998); describing the trustor as being willing to rely upon, give control to, support, or otherwise "be vulnerable to" the trustee (Bachmann, 2011; Schoorman et al., 2015); or describing the "reciprocal" (Lewis & Weigert, 1985; Li, 2015) or "reflexive" (Möllering, 2006) nature of trust.

Variations and Disagreements

What is the required extent and type of dependence or interdependence? While there is general agreement that trust involves a trustor and target who share some form of relationship, different perspectives exist regarding the types of dependence or interdependence forming the basis of trust that may be acceptable when considering something as in the realm of "trust." For example, Schoorman et al. (2015) explicitly argue that while trust is relational, it need not be reciprocal. In other words, trustor A's trust in B can be independent of B's trust in A. Conversely, Li (2015) argues that reciprocity plays a central role in dynamic trust-building processes that involve what he calls trust-as-choice. Trust-building processes may not be successful if A and B do not reciprocate each other's trust. Others, too, argue for an inherently reciprocal or interactive and reflexive nature of trust (e.g., Lewis & Weigert, 1985; Möllering, 2006).

In a different vein, Sheppard and Sherman (1998) describe how different types of relationships—ranging from more detached and shallow to deeper, more personal, and interdependent relationships—can impact the forms and levels of risk and trust (see also Dietz & Den Hartog, 2006; Frederiksen, 2012). To the extent that shallow and detached relationships primarily or solely involve either "deterrence-based" trust that relies upon external sanctions, or "calculative" trust that is fully determined by a weighing of the potential evidence, some have argued that the relationships do not really involve trust because they do not involve a "leap of hope/faith" (Dietz & Den Hartog, 2006; Li, 2015; Möllering, 2001, 2006; Williamson, 1993). In addition, Frederiksen's (2012) observation of a certain type of trust in certain close family relationships, in which trusting behavior sometimes is seemingly devoid of positive expectations and occurs *in spite of* expected *un*trustworthiness, does not seem to meet certain definitions of trust based on positive expectations (cf. Dietz, 2011). Also relating to variation in the relational aspects of trust, Li (2015) argues that "trust-as-attitude" conceptualizations are not relational enough because they typically focus on evaluating characteristics of the trustee that are not relationship specific (e.g., referencing the trustee's general benevolence across contexts and relationships, rather than the trustee's benevolence toward the trustor specifically).

The struggles over whether "real" trust must be relational in the sense of being reciprocal and reflexive, relational beyond calculation, or relationship specific seem to stem from opposing tensions between desires to conceptualize trust in a way that makes its boundaries clear and its study manageable and desires to capture both what is most interesting about trust and what it is about trust that requires a need for a construct of trust separate from calculativeness (Möllering, 2014; Williamson, 1993). Both are worthwhile goals. For example, by measuring and studying trust as a psychological state located within the trustor and separable from the psychological state of the trustee, you can choose to focus on the trustor's trust in the trustee and vice versa, *as well as* the relationship between the two. This approach also does not preclude an empirical study of the pros and cons of, for example, asking the trustor whether he/she views the trustee as benevolent in general versus benevolent to the trustor specifically (Li, 2015), and how these potentially different precursors impact trust when it is defined as willingness to be vulnerable. Such an approach also does not preclude investigation of non-calculative reasons (e.g., moral or relational reasons; Korczynski, 2000) for one's trust in another. Indeed, McEvily (2011) has argued that the field should be open to "hybrid" forms of trust rather than taking an either/or approach.

What targets (trustees) are acceptable? What constitutes an appropriate target of trust has also provided some disagreement among trust researchers. For example, Hardin (2013) argues that one cannot really trust an institution because one cannot really know institutions and institutions cannot truly "care" or "intend"—only the persons within institutions can do that. Drawing from writings by Hardin (1998), Luhmann (1988), and Seligman (1997), Cao (2015) asserts that confidence is about system trust, suggesting that one has *trust* in one's banker but *confidence* in one's bank. Note that here system trust (a.k.a., confidence)—which is also sometimes called institutional or institution-based trust—is distinguished by the target of the trust being a system or institution rather than a person (see also Campos-Castillo et al., 2016).[2] Finally, Dietz and Den Hartog (2006) also point out that some measures inappropriately vary the targets of trust. Some measures focus very generally on trust in or between groups of people, describe vague targets that leave one unsure of the precise referent, or vary the targets of trust assessed within the same measure. If, as they and others argue (e.g., Mayer et al., 1995; Schoorman et al., 2015), trust requires clear, specific, unchanging targets, then these measures do not adequately operationalize and assess trust.

The field is still ambivalent about the appropriateness of institutions as targets of trust. If trust and confidence are distinct constructs rather than points along a con-

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[2] This is not always the case. The terms system trust and institutional trust (or institution-based or institutional-based trust) have also been used to refer to the nature of the *context* of trustor–trustee relationships. That is, sometimes institutional or system trust refers to institutional factors (e.g., safeguards, policies, cultures) that provide a context in which trustors are more likely (than in other contexts) to trust persons who are trustees, rather than distinguishing persons or institutions as targets of the trust (Bachmann, 2011; Pennington, Wilcox, & Grover, 2003; Rousseau et al., 1998). Unfortunately, the boundary between institutions being the object of trust and institutions providing a context of trust is also blurry (e.g., McKnight & Chervany, 2001b; Möllering, 2006).

tinum, and if the target should determine which construct is relevant, then system trust should be called system confidence, and the companion to the present volume (Bornstein & Tomkins, 2015) should have referenced the role of "institutional confidence" rather than the role of "institutional trust." The debates over the appropriate targets of trust appear to be related to debates over the relational nature of trust. If trust must involve certain relational features such as reciprocity or non-calculative moral and relational "reasons" (or bases), then trust arguably would only apply to relationships that can include those relational features. This may result in exclusion of "trust" in institutions, by definition. On the other hand, to the extent that trust is psychological, then one should consider, from a psychological point of view, that people have a powerful tendency to anthropomorphize (Waytz, Epley, & Cacioppo, 2010). This may result in remarkably similar psychological experiences across trustee targets, whether those targets are actual people or institutions—making purely definitional exclusions not terribly useful. Indeed, similar dimensions of trustworthiness have been applied whether the target is a person, institution, or even a piece of technology (Campos-Castillo, 2010; Li, Hess, & Valacich, 2008; Smith, 2011). Thus, many (including our team) have chosen to use the term trust for what is viewed as a common phenomenon (or set of phenomena) directed toward persons (interpersonal trust) or institutions (institutional trust).

Context: Risk, Goals, and Vulnerability

Common essence: Potential negative outcome and uncertainty. In addition to an object that must be evaluated, most conceptualizations of trust require some element of risk to the trustor (e.g., Castaldo et al., 2010; Rousseau et al., 1998).[3] Risk—or "the probability and severity of adverse effects" (Aven, 2011, p. 511)—includes both a potential negative outcome and some amount of uncertainty inherent in the imperfect probability of its occurrence. Further, inherent in the potential negative outcome component of risk is the idea of desired and undesired goal states. The goals of the trustor are not always or even often explicitly labeled as such, but are implied by the potential for a negative outcome from the perspective of the trustor (for an exception see Castelfranchi & Falcone, 2010). That is, if the trustor has no desires (goals) in the situation, then there could be no risk of a negative outcome. Along with goals, vulnerability also influences the potential negative outcome and its uncertainty. Here, we define *vulnerability* as a "state" of the trustor "that can be exploited to adversely affect (cause harm or damage to) that [trustor]" (Haimes, 2006, p. 293). Thus, vulnerability is a component of risk (Haimes, 2006, 2009); it is

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[3] Occasionally, but not often, writers will also require that the trustee takes risks. For example, Cao (2015) states that "The declaration that I trust a person means that the individual in question is aware of my needs and is willing to take some risk regarding his/her own welfare to protect my interests" (pp. 241–242). This characterization again suggests that trust is only relevant to certain relationships and not others.

the combination of the trustor's vulnerability with external threats that could lead to some level of adverse effects that gives rise to and comprises "risk" (i.e., the probability and severity of the adverse effects).[4]

Disagreements and Variations

Is risk inherent to all trust concepts (conceptualizations)? While risk is commonly associated with and said to be required for trust to exist, some have proposed more nuanced views. For example, Möllering (2006) notes that trust fits with definitions of "risky" only generally—because, while you can assign a probability to risk, trust situations are uncertain in the sense that "neither the alternatives nor the probabilities are known by the actor" (p. 8). It is also common to point out that there is no "risk" in trusting attitudes, or in the mere "willingness" to trustingly rely upon another. Rather, some argue that risk only pertains to trusting behaviors and actions (Hardin, 2001; Li, 2015; Mayer et al., 1995). Consistent with our definition of vulnerability as comprising a component of risk, the idea behind this argument is that the trustor does not truly experience the risk(s) associated with trust until he or she acts upon his/her trusting attitude or willingness and actually takes on a vulnerable state. However, it is important to note that one could also argue that even "attitudinal" trust (i.e., trust characterized by evaluations of the trustee rather than by action) implies potentially attending to threats and adverse outcomes, and imagining the risks that would occur when making one's self vulnerable (Cao, 2015). Thus, it could be argued that risk is not irrelevant to trust attitudes and willingness—the psychological experience of the perception, imagining, or evaluating of risk can be (as discussed below, some say it *must* be) part of the psychological aspect of trust.

Also related to risk and vulnerability, some authors note a "trust paradox" (James, 2002; Li, 2008; Möllering, 2006)—that is, that the so-called antecedents of trust may decrease the very vulnerability and/or risk that make trust necessary.[5]

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[4] Vulnerability is not always defined this way. As Mishra (1996) observes, past trust research has commonly "defined being vulnerable as taking action where the potential for loss exceeds the potential for gain (Deutsch, 1962, 1973; Luhmann, 1979; Zand, 1972)" (p. 265). This definition, however, does not seem to clearly fit with definitions from the risk analysis literature (e.g., see the review by Adger, 2006; Alwang, Siegel, & Jørgensen, 2001). We rely upon a definition from the risk literature because that literature seems to have given more attention to definitional issues surrounding vulnerability, resulting in a clearer and more explicit definition. Our choice, of course, has significant impact on our analysis of trust definitions that use the term vulnerability and risk (i.e., almost all definitions).

[5] It also seems a bit paradoxical (or contradictory) to say trusting behavior is necessary to create risk (making trust a precondition for risk) as we do here, while also saying risk makes trust necessary, or that trust is a means of coping with risk (making risk preexisting to trust) (e.g., Lane, 1998). Perhaps this seeming paradox, however, is due to loose use of terms. Rather than saying risk makes trust necessary, maybe a more precise description of this perspective would be to say that behavioral trust (action allowing one's state of vulnerability) is simply a potentially relatively

Many have noted that feeling "secure" and "not vulnerable" is actually evidence of and part of the experience of trust (e.g., Cao, 2015; Li, 2015; Pennington et al., 2003). Mayer et al. (1995) describe this as a paradox because trust as "willingness to be vulnerable"—or, perhaps alternatively, "willingness to assume risk" (p. 98)— implies that vulnerability and risk should *remain constant* while willingness to accept that vulnerability and risk (at whatever constant level it exists) should increase as trust increases. Meanwhile, alterations to the trusting situation (i.e., the situation inclusive of the trustor, trustee, their relationship, and all contextual aspects impacting risks) that increase trust as a feeling of "security" or being "not vulnerable" seem to imply that vulnerability and risk, at least subjectively and perhaps also objectively, *decrease* as trust increases. There are two parts to this paradox that relate to other disagreements in the literature: one that is subjective and one that is objective.

Subjective risk: Must risk be consciously perceived? With regard to the subjective "feeling" (or perceiving) of safety versus risk, some have argued that trust requires explicit, conscious consideration of risk and of other choices; otherwise, the phenomenon should be called "confidence" (Giddens, 1996; Luhmann, 1988; Mayer et al., 1995). Similarly, Cao (2015) concludes that, according to dictionary definitions, confidence refers to a certain degree to which trust is warranted, specifically, the degree of "full trust." However, these approaches do not clearly and qualitatively distinguish trust from confidence so much as place them on the same continuum varying from zero to high conscious consideration, and/or zero to high assurance that trust is warranted. Such approaches also suggest a correlation between very high trust and the likelihood of achieving an unconscious and habitual "confidence," or lack of subjective perception of risk. Furthermore, they suggest that, for the same object/target, there may be some people in states of confidence and some people in states of trust. Luhmann (1988) notes such complexities and describes situations in which trust can turn into confidence and vice versa, depending not only on changes in conscious consideration of risk but also on changes in whether or not one can do anything about that risk (or "danger").

It may be because of these difficulties that many, including our own research team, have not distinguished trust and confidence in this manner. For example, we never attempt to find out if people are consciously aware of risk when we are assessing trust, although it does seem like extent of conscious awareness of risk would be an interesting variable to study in relation to trust or confidence experiences. Likewise, Möllering (2006) regards trust as a state of positive expectation of the trustee "irrespective of whether the trustor is conscious of this or whether it is

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lower-cost way to respond to threat (and threat is another component of risk, one that is external to the trustor; Haimes, 2006) compared to, for example, responding by ridding one's self of all vulnerability (e.g., through careful monitoring and insurance plans). After all, the uncertainty in the situation not only means something bad *could* happen—it also means it might *not*. If the bad thing does not happen, the trustor has saved some resources by taking on rather than eliminating his/her vulnerable state.

directly observable by others in any way" (p. 7). On the other hand, it may be because of the emphasis on trust as a "volitional" construct (as discussed later in this chapter) that some (e.g., Luhmann, 1988) feel it is also important to restrict the domain of trust to consciously considered risks.

Objective risk: Are risk reduction and increases in trust entirely separate? Relating to the more objective existence of risk (regardless of whether it is consciously perceived), some have also argued that risk and trust are separate constructs, and that decreasing risk should not be equated with increasing trust. For example, Schoorman et al. (2015) argue that many strategies used to increase trust—such as providing external controls or money-back guarantees in online environments—reduce the actual risk in the situation and make trust less necessary, *rather than* increasing trust. The goal in making such distinctions is to allow researchers to separate trust and risk, so that both can be studied (and effects assigned to each) individually and in combination. Yet, such distinctions are not as easy as may at first appear. Consistent with the trust paradox, in many or most cases, it also seems like increases in "trustworthiness" are associated with increased "willingness" due in part or in whole to a decrease in subjective—and possibly also objective—risk. Trusting a highly competent surgeon over a less competent surgeon, for example, could reflect *increased* willingness due to *decreased* subjective and objective risk of something going wrong during the surgery.

Mayer et al. (1995) suggest that this paradox might be resolved by separating the sources of the total risk experienced by the trustor into factors directly related to the *specific trustee and the trustor's relationship with the trustee*, from other factors that are part of the *external situation*. By categorizing the former sources of risk "trustworthiness," and the latter sources as "risk," it becomes possible to say that trustworthiness led to trust while all other external sources of risk remained the same. However, separating sources of risk in this way is not common, and many researchers see the risk that is most important to trust as—not external to—but rather inherently associated with the trustee. For example, Rousseau et al. (1998), explicitly connect risk to the trustee when they state that "Uncertainty regarding whether the other [i.e., the trustee] intends to and will act appropriately is the source of risk" (p. 395). Likewise, in describing his typology of trust, Li (2007) refers to a general consensus on the necessity of uncertain *trustee* dependability for trust to exist (see also numerous examples given by Bigley & Pearce, 1998).

Is some minimum level of subjective and/or objective risk necessary? Related to the separability of trust and risk, we might also ask whether or not trust ceases to exist when all risk is gone. The connection between uncertainty of a trustee's actions and trust also seems paradoxical. On the one hand, the more benevolent, competent, and full of integrity that a trustee is, the more certain a trustor may be (not just *seem*, but *be*) that nothing bad will happen if he/she relies upon that trustee, *and* the more trust the trustor may have for the trustee. Yet, some argue that once full certainty (subjective and/or objective) is reached through trustee perfection, the trustor is no longer trusting because there is no longer an element of risk. This in spite of the fact

that the trustor probably thinks that he/she is feeling "trust"—specifically "full trust." Is the trust that the trustor holds at this point of certainty zero? Perhaps, like dividing by zero, it has simply become undefined. Or, perhaps like temperature and "absolute zero," such certainty can never be reached under normal conditions? For ease of research, it seems less discontinuous just to refer to certainty as high trust (e.g., "full trust"). Yet, the desire of some to keep trust-relevant risk inherently tied to uncertainty about the trustee seems to be motivated by a desire to confine trust to the realm of reality or interesting research. That is, some might argue that you simply never can be certain of another's behavior, or that everything that is interesting and worth researching about trust happens when there is some uncertainty and risk. Alternatively, requiring that some risk be tied to the trustee could again be due to a requirement of volition—but this time the requirement that the trustee have volition. We discuss trustor and trustee volition next.

Experience: Intrinsic Volition/Agency

Common essence: Intrinsic, uncoerced/voluntary, agency, willingness. For most trust scholars, another key aspect of trust is that it is not externally coerced or inconsistent with the intrinsic will, desires, and agency of the trustor (e.g., Hassell, 2005). Terms such as "willingness," "intention," and "choice" are present in virtually all analyses of trust and imply that the trustor (and sometimes the trustee, too) is in a mode characterized by a sense of intrinsically generated volition and/or lack of reluctance. According to Deci and Ryan (1985), *intrinsic* requires that the source of trust is from within, stemming from internal desires and self-determined, autonomous evaluations. Thus, intrinsic motivation comes from internal states and still can be affected by external forces, but is not perceived as coercive or as against one's will or being. Subjectively, this may feel like one is "willing" or "wants to," but does not feel like one "should" or "must," do something—as these latter terms describe more extrinsic motivational states (Deci, Eghrari, Patrick, & Leone, 1994). Thus, *willingness* implies an intrinsic motivational state and agency. It ceases to be if coercion is required. As discussed below, willingness may at times reflect a more passive form of agency, which does include passive and active components. Further, a theoretical analysis of the meaning of "agency" suggests that trust may represent just one way of demonstrating agency. That is, agency has been described as a construct comprising of past (habitual and iterative), future (imaginative and projective), and present (deliberative and evaluative) elements. The "present" element of agency includes judgments (which incorporate both past and future), decisions, and enactments (Emirbayer & Mische, 1998). These are, of course, concepts that have similarly been used with the adjective "trusting" (e.g., trusting judgments, choices, acts) (Möllering, 2013a).

Disagreements and Variations

*Isvolition/agencyonly relevant to trusting behavior and not to other trust concepts (*e.g.*, trusting belief)?* Unlike the aspects previously discussed, there does not seem to be much debate centering on the intrinsic and volitional nature of trust. However, it is worth noting that, like risk, many claim that volition primarily pertains to trusting behaviors, not to psychological aspects of trust (e.g., trusting beliefs). Hardin (2002) notes that when it is considered as a belief, trust "just is" or is not, because it comes from our assessment of the situation and evidence which "compels" us in our beliefs (p. 58). Similar arguments might be made about perceptions and expectations that are formed about a trustee. Nonetheless, concepts such as beliefs, expectations, and perceptions are still intrinsic to the trustor, even if not chosen. Furthermore, "willingness" in particular seems like a psychological concept that crosses from intrinsic "being" to intrinsic "motivation." That is, while perceptions, beliefs, and expectations may be intrinsic and "compelled" by the situation, our sense of being "willing" to do something reflects an aspect within us that is on the verge of a motive. If these aspects do not provide impetus for volitional choices, intentions, and behaviors, they at least pave the way. As previously noted, researcher preferences for viewing trust as volitional may impact the extent to which they see trust as behavioral (more volitional) versus evaluative (less volitional), or as needing to include conscious consideration of risk (as conscious reasoning is associated with perceptions of voluntary choice; Cushman, Young, & Hauser, 2006).

   Must trust reflect active as well as passive volition/agency on the part of the trustor? Relatedly, some have distinguished active versus passive forms of volition. Li (2007) describes trust-as-attitude as "a psychological state of passively accepting a given risk, rather than an initiative to take risk" (p. 435). In particular, "willingness to be vulnerable" often may not be an active motive like hunger—as Möllering (2006) notes, people are not seeking to be vulnerable per se. Willingness to be vulnerable—at least at times—may be a more passive and intrinsically oriented sense of lowered defenses, reflecting a state in which one is not protecting oneself from the risk that may arise from relying on a trustee. Indeed, some have distinguished *willingness* from *intention* by noting that not all behavior is purposefully and actively intentional and reasoned. Although willingness and intention can coincide, they do not always. Behavior due to willingness without intention is characterized as more accidental and influenced by factors that reflect more of a lack of defensiveness against doing the behavior than an active seeking to enact the behavior (Gerrard, Gibbons, Houlihan, Stock, & Pomery, 2008; Gibbons, 2006; van Lettow, de Vries, Burdorf, & van Empelen, 2014).

   On the other hand, at times trust may be more active. People may seek to rely upon and give up control to a trustworthy trustee, especially if giving control to another reduces their sense of (or actual) risk, as discussed previously. They may also be inclined to actively and voluntarily give up control and offer trust to entities in a compensatory manner if they experience existential and epistemic needs (Shockley & Shepherd, 2016). Luhmann (1988), in addition to requiring that trust

involves explicit consideration of risk, ties the notion of trust to active volitional choice, noting that trust involves the perception of choice and the possibility of avoidance of risk as an alternative. If a person's choices cannot reduce risk, Luhmann suggests calling the potential negative "danger" (not "risk") and saying that the person has low confidence rather than low trust. Li (2007) further notes that, in contrast to trust-as-attitude, "trust-as-choice is proactive and an intrinsically motivated choice of relationship building commitment rather than a passive acceptance of risk" (p. 435). In his recent Nebraska Symposium chapter, Li (2015) argues that trust should be reframed as a leap of hope that takes advantage of vulnerability. Specifically, he argues that, in contrast to "trust-as-attitude," a conceptualization of "trust-as-choice" solves key problems in trust research by conceptualizing trust as an active, reciprocal, opportunity-laden (rather than vulnerability-laden) construct that allows mutual (rather than one-way) trust to grow between entities in a relationship.

Is volition/agency required of both the trustor and trustee? Finally, some have extended the necessity of volition and agency beyond the motivational state of the trustor, to the expected actions and motivations of the trustee. For example, Rousseau et al. (1998) noted that relying on a target cannot be considered trusting that target if the reason for positive expectations is that the target is being pressured or forced into the hoped-for behavior (see also Sitkin & Roth, 1993). Others go even further and say that if the trustee is simply being trusted to (predictably) act in his/her own best interests—which may just happen to coincide with the trustor's interests—this also is not trust (Chami & Fullenkamp, 2002). Likewise, Möllering (2005) notes, "the problem of trust […] arises due to the other's principal *freedom to act* [emphasis added] in a way that benefits or harms the trustor" (p. 18). Or, as another colleague put it, what the trustor is vulnerable *to* is the agency of the trustee (Hamm, personal communication, April 7, 2015). Clearly, limiting trust to cases where the trustee must have agency, volition, and perhaps even choose to act in ways that go against his/her best interests would, at least currently, rule out talking about trusting systems (e.g., policies and technological systems) designed to reduce risk. Such systems reduce risk in an involuntary way and only because humans designed them to do so. Thus, as previously noted, the requirement for trust to involve a volitional and independent agent as a trustee has links to other limits researchers may place on the appropriate targets of trust, as well as the potential requirement of some level of trustee-linked risk.

Other Essences: Forms and Sources of Trust

Other essences: Many forms, many sources. A final theme within our review of reviews was wide-ranging discussion of forms and sources of trust. Within the "forms and sources" of trust theme, the primary agreement is that trust really does refer to many different "things," "forms" (Dietz & Den Hartog, 2006), or "concepts" (Castaldo et al., 2010), including beliefs, attitudes, intentions, behaviors, and

so on (see last column of Table 1). In examining the "layered" nature of trust, Castaldo et al.'s (2010) content analysis of definitions found that the "conceptual" nature of trust (i.e., as a belief, evaluation, behavior, or other concept) is described within nearly all definitions of trust and frequently linked with other building blocks of definitions. Many definitions also stipulate appropriate and inappropriate sources or bases of trust. For example, when considering trust as a behavior, there is widespread agreement that certain behaviors like cooperation may or may not stem from or be indicative of trust, depending on their causes or reasons—coerced cooperation that is due to powerful external influences is not trust behavior, but cooperation based on uncertain but positive expectations of the trustor is (Lewis & Weigert, 1985; Mayer et al., 1995).

Variations and Disagreements

Should trust be conceptualized as a psychological or behavioral construct? Although researchers agree that trust has been used to refer to many different concepts or forms, they disagree on whether it should be used that way (Dietz & Den Hartog, 2006; Rousseau et al., 1998). Some—especially psychologically oriented researchers—would like to limit trust to being a psychological construct that stays "in the category of knowledge and belief rather than in the category of action and behavior"(Hardin, 2002, p. 59). Arguments for this view include that it is possible to have trust for someone without acting on it and to act in a way that makes you vulnerable to someone even without trusting him/her (Hardin, 2002); that trust is widely and perhaps most commonly defined in this way (Möllering, 2005; Rousseau et al., 1998); and that narrowing trust in this way allows researchers to keep trust separate from its antecedents and outcomes (Mayer et al., 1995; Schoorman et al., 2015).

Meanwhile, others—especially those taking an economic perspective or attempting to model trust in mathematical terms—would like trust to be conceptualized as an overt choice, action, or behavior. Arguments for the behavioral view conclude that "the only true evidence for trust is the act of trust" (Hassell, 2005, p. 132). To explain this point, Hassell states that if you are asked to fall backwards into the arms of a big, strong, honest, benevolent person, you may calculatively (or perhaps even heuristically; McEvily, 2011) determine that the person is trustworthy, but still have great difficulty allowing yourself to fall backwards. This hesitation might be due to activation of automatic fear centers indicating that, at some instinctual gut level, you do not really trust this person. As previously mentioned, Li (2015) also argues for the conceptualization of "trust-as-choice" defined "as a behavioural decision to accept, and even appreciate the vulnerability of relying on others so much so that trustor will choose to voluntarily increase his/her vulnerability" (p. 41). His arguments for this conceptualization include that trust-as-choice matters more than trust-as-attitude because only choice results in concrete behaviors; concrete actions are required for the dynamic processes of trust building, maintaining, and repairing

as well as for trust to function as a mode of governance; and trust-as-choice can "go beyond" affective and cognitive aspects of trust-as-attitude (see also Möllering, 2001).

To what extent is trust affective in nature? Some debate has also occurred around the question of psychological trust's cognitive versus affective (or emotional) nature. Cognitive accounts of trust emphasize evaluations and judgments (e.g., is the trustee benevolent, competent, honest, and reliable?) (Hardin, 2006; Mayer et al., 1995). Thus, "trusting cognitions" include positive judgments on such dimensions. Hardin takes a particularly cognitive approach to trust, arguing that all major theories of trust (or trustworthiness) are cognitive in nature. Further, while acknowledging that "In some accounts, trust is held to be founded in emotions or in virtually hard-wired dispositions," he calls these "idiosyncratic" accounts that "must strike almost everyone but their authors as odd" (Hardin, 2006, p. 25).

Others, however, suggest trust is or can be much more affective in nature. Miller (1974), for example, states that "Political trustcan be thought of as a basic evaluative or affective orientation toward the government" (p. 952). In some cases, theorists separate cognitive versus affective trust, such that cognitive trust is based more upon assessments of reputation, competence, and integrity, while affective trust is based more upon assessment of factors more central to the specific trustor–trustee relationship, such as feelings of security within the relationship, extent of emotional investment, and mutual bonding (McAllister, 1995). Others allow the delineation of cognition and affect to bleed into one another, such that both are always aspects of trust. This is consistent with neurobiological research suggesting the difficulty of separating cognition and emotion (e.g., Gray, 1990). Thus, Möllering (2006) assumes all trust involves cognition and emotion, arguing that it is rational to allow our affective states to inform our trust judgments, and emotion is necessary for effective cognition and decision making. As De Sousa (2004) notes, affect/emotion directs what questions we care about and what evidence we consider in answering those questions, and many times what we call rationality is really rationalization (see Haidt, 2001, for similar arguments in the context of moral reasoning).

Must trust stem from or include certain bases but not others? Li's (2015) perspective that trust-as-choice can (and trust in general should) "go beyond" both affective propensities to trust and cognitive assessments of trustworthiness is one example of differing perspectives about the necessary, appropriate, and possible "bases" of trust. A number of typologies have been constructed around potentially different sources of trust, resulting in terms such as process-based, characteristic-based, and institutional-based trust (Zucker, 1986); calculus-based, knowledge-based, and identification-based trust (Lewicki & Bunker, 1996; Saparito & Colwell, 2010); affective and cognitive trust (McAllister, 1995); history-based, category-based, role-based, and rule-based trust (Kramer, 1999); and more (Gabarro, 1978). As Schoorman et al. (2015) note, these distinctions between the *sources* of trust do not necessarily mean that *trust* itself (which they define as "willingness to be vulnerable") differs.

Still, "source" does seem to matter—and certain theories can be distinguished by their preferred bases (Lane, 1998). Just as not all cooperation is reflective of behav-

ioral trust, most definitions place boundaries around appropriate and inappropriate sources of psychological trust. A long-standing argument in the trust literature is whether trust can be based on calculation or must be entirely non-calculative (McEvily, 2011; Möllering, 2014; Williamson, 1993). The requirement that trust be based on some causes but not others is also made explicit in definitions of trust including the willingness to be vulnerable or intention to accept vulnerability *based on* certain things. These specific things might include "positive expectations of the intentions or behavior of another" (Rousseau et al., 1998, p. 395); "the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer et al., 1995, p. 85); or "a judgement of similarity of intentions or values" (Earle et al., 2007, p. 4). These three definitions of trust vary in the boundaries they draw around appropriate types of positive judgments and expectations that can form the basis of trust, but all three seem to require that trust has a basis in positive assessments of the trustee or one's relationship with the trustee (consistent with findings from Castaldo et al., 2010). Restrictions on the bases of trust are also made explicit in Castelfranchi and Falcone's (2010) model in which they conceptualize trusting attitudes as forming the basis for trusting decisions which form the basis for trusting actions. Castelfranchi and Falcone (2010) also restrict trust to only certain states of "willingness to be vulnerable" but not others when they write:

> there are a lot of states (including psychological states) and acts that share the same property of making oneself vulnerable to others; for example, *lack of attention and concentration, excess of focus and single-mindedness, tiredness, wrong beliefs about dangers* (e.g. concerning exposition to an enemy, being hated, inferiority, etc.), and so on. Moreover, some of these states and acts can be due to a decision of the subject: for example, the decision to elicit envy, or to provoke someone. In all these cases, the subject is deciding to make themselves vulnerable to someone or something else, and yet no trust is involved at all. (p. 20)

On the other hand, reliance on certain restricted definitions of trust has led a number of researchers to argue that current research is too limited to "trustworthiness" (evaluations of the trustor) as sources of trust (Dietz & Den Hartog, 2006; Möllering, 2013b). When Li (2015) argues that appropriate bases of or reasons for trust should "go beyond" both dispositional sources and trustworthiness assessments, he suggests that desires for enhanced relationships or trusting someone in order to inspire reciprocal trust comprise additional sources. Meanwhile, other researchers allow for trust to be based on institutional arrangements and other contextual factors (Bachmann, 2011). Dietz and Den Hartog (2006) review a number of "sources of evidence upon which the beliefs about the other party's trustworthiness, and the decision to trust them, can properly be based" (p. 561), including characteristics of the trustor (e.g., the trustor's predispositions and prior attitudes), of the trustee (e.g., the trustee's traits and prior behaviors), the relationship between the trustor and trustee (e.g., relationship stability, stage, and closeness), and macro-level factors such as reputation or institutional frameworks that can impact trust in a trustor.

Potential Solutions: Integrative Frameworks of "Trust-as-Process"

Against the just-reviewed backdrop of conceptual "essences" and more often conflicting definitional "boundaries" that have been suggested for restricting the concept of trust are a number of integrative models, typologies, thematic maps, and frameworks that have been proposed as solutions to trust's conceptual and definitional issues. As shown by the sampling of solutions illustrated in Table 3, researchers have taken different approaches that vary in breadth. For example, McEvily (2011) focuses narrowly on cognitive sources of trust and argues that, rather than restricting trust to a discrete concept involving no calculation, trust should be viewed as "a mixed mode social judgment" that contains some mix of different forms of judgment, including calculation and heuristic forms, and perhaps others. Bigley and Pearce (1998) organize a typology around the questions that different definitions tend to answer, and Fink et al. (2010) identify two "corridors" of definitions, both which emphasize expectations and having an interaction partner, but one that emphasizes positive confidence (which they refer to as the mechanism of trust) and the other negative risk and uncertainty (which they refer to as conditions for trust relevance). Broader approaches include Mayer et al.'s (1995) well-known model connecting trusting dispositions, perceptions of trustworthiness and risk, trust as willingness to be vulnerable, behavioral "risk taking in relationship," and outcomes of that behavior; as well as Dietz and Den Hartog (2006)'s identification of what they term trust-relevant inputs (e.g., the trustor's and trustee's characteristics and relationship, the situation, and domain), processes (trust beliefs and decisions), and outputs (e.g., trust-informed risk-taking behaviors). Similarly, McKnight and Chervany's (2001a) interdisciplinary model of trust concepts identifies disposition to trust, institution-based trust, trusting beliefs, trusting intentions, and trust-related behaviors as important and relevant to understanding trust as a process.

Numerous other integrative models, frameworks, typologies, and thematic maps also exist (e.g., Burke et al., 2007; Castaldo, 2003; Castaldo et al., 2010; Castelfranchi & Falcone, 2010; Li, 2007, 2008; Möllering, 2006). Although there are variations in these solutions, most seem to converge on the idea that a full understanding of trust requires inclusive attention to many different aspects, including the dispositions, perceptions, beliefs, attitudes, expectations, and intentions of the trustor; characteristics of the trustee; and features of the context or situation in which the trustor and trustee are embedded. Indeed, many have noted that the field of trust research need not and perhaps should not "struggle for one unitary definition of trust on which all researchers in the field will agree" (Fink et al., 2010, p. 104), but instead might see trust as "a family of constructs with analogous meanings and varied operationalizations" (Lewis & Weigert, 2012, p. 29). McKnight and Chervany (2001a) noted a "growing consensus that trust is not unitary, but is a multiplex of concepts" (p. 30) and offered definitions of "a cohesive set of conceptual and measurable constructs that captures the essence of trust and distrust definitions" (p. 27). Apparently, though, this growth in consensus is slow, as a decade later McEvily (2011) also notes "a growing consensus in the organizational literature that trust is not simply a single concept but rather a set of related concepts" (p. 1270).

Table 3 Components of integrative models, maps (etc.) commonly distinguishing and relating trust or trust-relevant constructs

Citation	Context, situation, structures	Disposition, propensity, trait	Affect, emotion	Evaluation, belief	Expectation	Willingness	Intention, decision	Behavior	Outcome, consequence after behavior
Bigley and Pearce (1998)	Questions dealing with interactions among unfamiliar actors			Questions dealing with interactions among familiar actors and organization of economic transitions				Questions deal with unfamiliar actors	
Burke et al. (2007)	Team and organiz. factors	Predisposition of trustor	Affect (feeling secure)	Trustee ABI+reputation	Trust as willingness to be vulnerable based on positive expectations of intentions or behavior of trustee			Behavior	Distal outcomes
Castaldo et al. (2010)	Consistent perceived risk and vulnerability			Expectation (or a belief, a reliance, a confidence, and synonyms/aliases) that a subject distinguished by specific characteristics (honesty, benevolence, competencies, and other antecedents) will perform future actions					Positive results for the trustor
Fink et al. (2010)	Risk, uncertainty				Expectation, confident expectation				
Li (2008)	Institutional and relational bases; conditions of trust: uncertainty and vulnerability	Dispositional bases	Trust-as-attitude	Functions of trust: expectation and willingness			Trust-as-choice		

	Perceived risk	Trustor's propensity	Perceived trustworthiness (ABI)	Trust as willingness to be vulnerable based on positive expectations of trustee action (behavior)		Risk taking in relationship	Outcome
Mayer et al. (1995)							
McEvily (2011)			Calculative and heuristic information processing creating hybrid forms of trust				
McKnight and Chervany (2001a)	Institution-based trust; risky situation[a]	Disposition to trust	Felt security[a] · Trusting beliefs (ABI + predictability)	Trusting intentions (includes willing to depend and subjective probability of depending)		Trust-related behavior	

Note: As much as possible, we use these authors' own words and descriptions

[a]These two aspects are "implicit in all the definitions" in the McKnight and Chervany (2001a) model

A second commonality between such solutions is that they tend to focus on trust concepts within a process, or even "trust-as-process." That is, the collections of trust concepts (i.e., trust beliefs, expectations, behaviors, and so on) are not simply organized in terms of similarities and differences, but often related to one another in terms of one construct leading to another and influencing each other over time. Building on theories of agency, Khodyakov (2007) suggests that trust-as-process refers to consideration of time-based constructs: for example, consideration of reputation based on the past and expectations of the future to make a decision to trust (e.g., to rely upon or not) in the present. As outlined by Möllering (2013a), the idea of trust-as-process includes recognizing that "trusting" involves both mental and social processes (i.e., both psychological and behavioral aspects), occurs and changes over time, involves information processing and learning (e.g., about trustworthiness, risk, and contexts of trust), and also can result in—for the trustor and the trustee—changed personal identities and institutional structures and practices.

These trust-as-process views of trust have a number of benefits. First, they embrace the idea that *trust* as it is currently used both in everyday conversation and across research literatures references multiple constructs within an overarching process. The process of trusting in the moment or building trust over time includes "trust-as-attitude" and "trust-as-choice" (cf. Li, 2015) along with "trust-as-propensity" or numerous other "trusting" (cf., McKnight & Chervany, 2001a; Möllering, 2013a) or "trust-relevant" (cf. Dietz & Den Hartog, 2006) constructs. Thus, trust-as-process approaches represent, rather than fight against, the reality of contemporary discussions of trust as well as acknowledge the importance of multiple constructs in fully characterizing trust. In addition, trust-as-process approaches take the field past semantics (e.g., claims that you cannot call something trust because it is or is not a behavior), to focus on the arguably more important task of understanding how, why, when, and with what impacts, different aspects of trust-as-process (i.e., trusting beliefs, trusting behaviors, etc.) emerge, increase, decline, and/or are reinstated. Another benefit is that trust-as-process approaches partition rather than "stretch" trust. Bigley and Pearce (1998) note that stretching trust to cover all potential definitions risks "producing constructions that are either too elaborate for theoretical purposes or relatively meaningless in the realm of empirical observation" (p. 408). The field may stand a better chance of creating clear definitions for various "trusting constructs" than "trust" more generally.

Furthering Trust-as-Process Approaches to Defining Trust Constructs

Are we done then? Is the "growing consensus" around the idea that multiple constructs define and are part of "trust-as-process" complete? No, perhaps not. But given the prior work done to conceptualize and define trust, perhaps we are not as far off as common complaints make it seem. Regardless of whether we eventually come to consensus on a single definition of trust, there are three ways in which we

may move further in the direction of clarifying trust-as-process constructs. First, we can be more precise in our discussions. Researchers could explicitly and more precisely reference and define which trusting concept(s) they are investigating. Calls for such clarity in discussions have been issued before, including calls for researchers to indicate whether they mean trust as a disposition, a set of positive evaluations (more commonly titled trustworthiness) or expectations, or a willingness to be vulnerable (Fink et al., 2010; Fulmer & Gelfand, 2012; Schoorman et al., 2015). Beyond these, we may find it clarifying to draw distinctions between other trust constructs, such as evaluations versus beliefs, or willingness versus intentions.

Second, we might draw upon other psychological literatures to provide more in-depth conceptualization and definitional work and further clarify the distinctions between trust constructs (e.g., motivations vs. behaviors vs. expectations), between the constructs used in definitions of trust (e.g., vulnerability vs. risk), and between descriptors such as "trusting" and "trust relevant." Among the many reviews of trust constructs and many proposed solutions to definitional variability that we reviewed, it was surprising how little attention was given to distinguishing components variably described as being "trusting" (or trust related). Beyond the set of definitions proposed by McKnight and Chervany (2001a, 2001b) for trusting intentions, trust-related behavior, trusting beliefs, institution-based trust, and disposition to trust (and parallel definitions for distrust constructs), not much effort has gone into considering the implications of making distinctions between different trust-as-process constructs. Even McKnight and Chervany's careful analysis gives more attention to what makes beliefs and intentions (for example) "trusting," and what may be the subcomponents of other trust components, rather than to the differences between, for example, beliefs and intentions per se (see also Castaldo, 2003). Additional definitional analyses might help to reduce the different ways that trust concepts are used (e.g., Bigley & Pearce, 1998, list at least five distinct ways that vulnerability—or perhaps risk, if you use our definitions—has been related to trust). In addition, such definitional analyses could facilitate a third manner of clarifying trust-as-process constructs—that is, the development and use of correspondingly clear operationalizations of trust concepts (Lyon, Möllering, & Saunders, 2012, 2015; McEvily & Tortoriello, 2011).

Conclusion

The frequent complaints about the continued "elusive" nature of trust and the lack of an agreed-upon definition for trust are not entirely unfounded, but they also seem to be somewhat self-serving and misleading. That is, such claims may serve as rhetorical devices to underscore the importance and difficulty of one's topic of study, while at the same time providing authors with full license to define trust however they like.[6] Such claims also seem to give short shrift to the large amount of prior

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[6] Thanks to Guido Möllering for this observation.

work devoted to conceptualizing and defining trust—work that instead might be drawn upon to guide researchers in more precisely and rigorously identifying and better justifying their definitions.

Because it has become more common to note that the most frequently cited definitions of trust are those offered by Mayer et al. (1995) and Rousseau et al. (1998), the field might achieve more consensus if more and more researchers would rally around one of these similar definitions. However, examination of the disagreements around definitional boundaries for trust suggests that such consensus may not be so easy. Reasons for differences in preferred boundaries often seem tied to desires to distinguish trust from other existing constructs (e.g., calculativeness), to simplify trust, and/or to retain what is most interesting about trust (which of course varies between researchers). This suggests it would be worthwhile to further develop a *set* of definitions to cover "trust-as-process" constructs. These definitions would require analyzing how various trust constructs differ (e.g., what makes trusting behavior different from trusting intention, and each of these different from willingness to trust) and are similar (e.g., what makes each "trusting").

While it remains to be seen how many of the varied and disagreed upon definitional boundaries a "trust-as-process" definitional analysis might resolve, such an approach embraces the high likelihood that researchers across disciplines will continue to study their preferred parts of the trust process, while at the same time encouraging them to more clearly and precisely denote what part(s) they are studying. Such an approach seems especially reasonable given the stark lack of arguments for excluding various constructs as irrelevant to the trust process. Although researchers may vary in their focus, for example, on trusting behaviors versus evaluations versus a more motivational state of psychological "willingness" versus institutional trust-relevant contexts, no one seems to be arguing that the other concepts are not important for a full understanding of that which we commonly term "trust."

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