Routledge
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Trust development across levels of analysis: An embedded-agency perspective

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ABSTRACT
This article advances a cross-level model of trust development. Drawing upon an embedded-agency perspective from institutional theory, we combine a top-down with a bottom-up approach, reflecting the inherent duality of trust in organisational settings. Specifically, we elaborate a reciprocal process that illustrates how organisational structures influence individuals' trust and, at the same time, how individuals' trust manifests in organisational structures. We discuss the theoretical implications of our cross-level model for the trust literature and propose important avenues for future research.

ACTION EDITORS
C. Ashley Fulmer; Kurt T. Dirks

Introduction

Over the last three decades, the scholarly literature has paid much attention to the question of trust development (Child & Möllering, 2003; Cook & Schilke, 2010; Williams, 2001). This body of work has focused, for instance, on how trust – defined as confident positive expectations regarding another's conduct (Lewicki, McAllister, & Bies, 1998) – develops among individuals (e.g. Lander & Kooning, 2013; Lewicki, Tomlinson, & Gillespie, 2006) or among organisations (e.g. Graebner, Lumineau, & Fudge Kamal, forthcoming; Malhotra & Lumineau, 2011; Zhang, Viswanathan, & Henke, 2011). However, trust has traditionally been analyzed at one single level of analysis at a time (Fulmer & Gelfand, 2012). As a result, much theorising on trust has been biased toward either overly individualist or overly structural accounts (Kroeger, 2012; Lewis & Weigert, 1985). The former type of account treats trust as a strictly individual phenomenon and often conceptualises interpersonal trust in a vacuum, thus stripping it from the broader social and organisational context in which it is embedded. Conversely, the latter suffers from a simplistic focus on the broader preconditions for trust and fails to shed light on individuals' agency and the mechanisms through which trust develops. Either focus is problematic when studying trust in organisational settings, because both types fail to reflect the fact that organisations are inherently multi-level entities.

In this article, we draw and expand upon recent research emphasising the important multi-level nature of trust (e.g. Currall & Inkpen, 2002; Fulmer & Gelfand, 2012; Gillespie & Dietz, 2009; Schilke & Cook, 2013) to analyze the reciprocal relationship between the individual and

organisational levels in trust development. We first affirm the need for more multi-level trust research and introduce an embedded-agency perspective as a guiding framework for the analysis of cross-level trust development. Second, we advance a multi-level model of trust development. We start by analysing how organisational structures influence individuals' trust and then turn to an analysis of how individuals' trust can manifest in organisational structures. Finally, we discuss the theoretical implications of our multi-level model of trust development for the trust literature and propose important avenues for future research.

The need for more multi-level trust research

Despite the great volume of scholarly work on trust, only a relatively small substream of this research has been interested in the issue of trust across levels of analysis (see Fulmer & Gelfand, 2012 for a review). Most work has focused on trust either at the individual level (e.g. Robinson, 1996; Rotter, 1967) or at the organisational level (e.g. Doney & Cannon, 1997; Schilke & Cook, 2015). However, we still know relatively little about how trust develops *across* levels of analysis and how micro and macro features of trust are interrelated. The relative deficiency of theoretical developments specific to trust development across levels is problematic because 'findings at one level of analysis do not generalise neatly and exactly to other levels of analysis' (Klein & Kozlowski, 2000, p. 213). Trust scholars should therefore be particularly careful about a lurking cross-level fallacy (Rousseau, 1985; Rousseau & House, 1994) and clearly articulate how trust dynamics operate at and across distinct levels of analysis. They should pay attention to the possibility of using theories initially developed at the individual level at the organisational level, and vice versa (Dansereau & Yammarino, 2005) to determine whether isomorphism exists among trust constructs at different levels of analysis (Rousseau, 1985). For example, as suggested by macro scholars (Gulati & Nickerson, 2008; Zaheer & Harris, 2006), trust at the organisational level may be more than the simple sum of individuals' trust; as such, the analysis of trust at the organisational level should avoid unreflected anthropormorphizations of organisations. Moreover, failing to explicitly acknowledge that trust can exist at multiple levels precludes insight into relevant processes that span across levels.

In this article, we argue that trust is inherently a multi-level phenomenon and, thus, that our understanding of trust development should embrace the reciprocal relationships between micro and macro perspectives. We thus advance a multi-level model of trust development that combines bottom-up and top-down processes. This approach allows us to articulate how trust at lower ('micro') levels of analysis may be affected by higher ('macro') level entities and, vice versa, how trust at higher levels of analysis can emerge from lower level entities. As such, to understand trust development across levels more fully, it is important to account for its duality. In the following sections, we discuss the interactive influence between individual and organisational levels throughout the process of trust development, as summarised in Figure 1. We first introduce the notion of embedded agency as an organising principle for our trust development model before elaborating the reciprocal effects of trust at the individual and organisational levels.

Embedded agency

A framework explicitly addressing the bidirectional relations between individuals and organisations follows the embedded-agency approach (Barley & Tolbert, 1997;
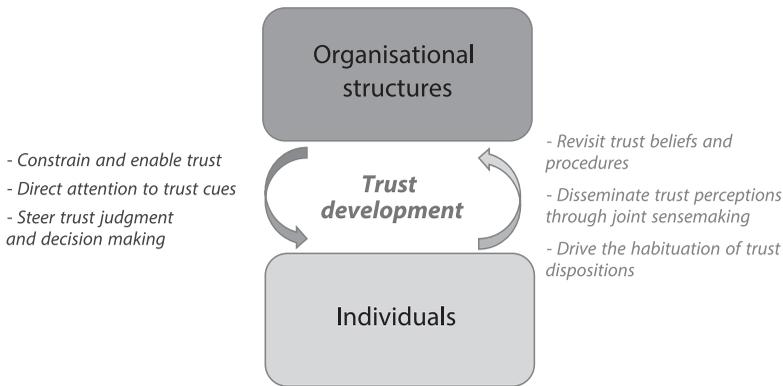
Figure 1. A multi-level model of trust development.

Seo 2002) that is at the heart of current inquiry in institutional theory (Garud, Hardy, & Maguire, 2007; Harmon, Haack, & Roulet, forthcoming). Traditionally, institutional theorists one-sidedly focused on how broader institutions constrain lower-level action, but more recently they have come to agree that both institutional structure and individual agency matter and are in a reciprocal relationship (Cardinale, 2018). Applying an organisations-as-institutions perspective (Tolbert, 1988; Zucker, 1983) and zooming in on the organisational and individual levels, the idea of embedded agency implies the existence of two types of concurrent cross-level effects: top-down (i.e. organisation→individuals) and bottom-up (individuals→organisation).

Top-down

Organisational structures that are taken for granted and describe reality for the organisation specify and justify its members' cognition and behaviours (Garud et al., 2007). Organisational rules, norms, and beliefs function as performance scripts that offer guideposts on how to think and behave when acting within the limits or on behalf of the organisation. Conformity with organisational structures provides actors legitimacy, whereas deviations from these prescriptions are thought to be counteracted by sanctions or are costly in some other manner (Jepperson, 1991). Moreover, shared cognitive frames at the organisational level provide a common understanding of situations and give joint meaning to ambiguous situations, such that the perception of these situations tends to converge among organisational members (Weick, 1979). Consequently, organisational structures may both constrain (make impossible) and enable (make possible) some actions and, over time, may even imprint certain dispositions that orient action (Cardinale, 2018; DiMaggio, 1988). As a result, individual behaviour and perception can be understood as being shaped by organisational structures.

Bottom-up

On the other hand, organisational structures are not fixed but are created and can be disrupted by the individuals enacting them (DiMaggio, 1988; Emirbayer & Mische, 1998; Holm, 1995). It is particularly when individual actors are temporally confronted with

different structural environments or when the current structure proves highly ineffective that they may come to contest the status quo (Emirbayer & Mische, 1998). Moreover, newcomers who have not yet been fully socialised into the organisation may also be prone to questioning current organisational structures (Tolbert, 1988). In all these situations, individuals may come to break with existing organisational structures and start to institutionalise new rules and behaviours. It is through individuals' interactions and shared sense making that new organisational structures may come into being (Cornelissen, Durand, Fiss, Lammers, & Vaara, 2015), in turn affecting organisational members' future cognition and behaviour.

In summary, the notion of embedded agency stresses how macro-level meanings, such as organisational structures, can make their way into micro-level cognition and behaviour, as well as how, vice versa, micro-level phenomena can build up to either further maintain or change macro-level structures. We apply this general idea to the specific realm of trust and develop the position that trust at the organisational level and trust at the individual level are mutually embedded.

How organisational structures influence individuals' trust

Here, we adopt a broad understanding of organisational structures to encompass both formal organisational design and informal organisational norms and procedures (Cao & Lumineau, 2015). Most generally, the design of an organisation's structure refers to 'the pattern of communications and relations among a group of human beings, including the processes for making and implementing decisions' (Simon, 1947, pp. 18–19). Within an organisation, such structures manifest, for instance, through the ways responsibilities are separated, division of labour is supported, tasks are designed, power is distributed, or incentives are organised. In inter-organisational relationships, for example, organisational design operates most notably through contracts and administrative controls (Gulati, Puranam, & Tushman, 2012; Schilke & Lumineau, 2018).

In addition to a formal governance system of polices and plans, organisational structure also manifests through informal channels. Informal structures affect trusting and trustworthiness behaviour not only directly, by delineating appropriate behaviours, but also indirectly, by shaping beliefs and expectations (Denison, 1996; Lumineau & Malhotra, 2011; Schilke & Cook, 2015). These structures create norms, which guide actors' behaviour and specify permissible limits (Ouchi, 1979). In addition, informal structures support a logic of action, or interaction pattern, through which individuals evaluate each other's behaviour and the appropriateness of their own response (Schilke, 2018). They represent a collectively shared way of making sense of social cues (Fainshmidt & Frazier, 2017).

This set of both formal and informal organisational design aspects influences how boundedly rational individuals focus their scarce attention and interpret informational cues (Schilke, 2018). Consistent with the information-processing view (Galbraith, 1974; Schilke & Lumineau, 2018; Thompson, 1967; Tushman & Nadler, 1978), we propose that judgments and decision making underlying trust development are influenced by organisational structures that guide selective attention to organisational issues. Organisational structures shape the nature of the actions taken by individuals to gather information when making decisions about trust. That is, they orient how managers and employees within an organisation gather cues and draw inferences about trustworthiness.

Organisational structures also influence the way information is interpreted and how individuals make sense of its importance (Cyert & March, 1963).

Lumineau (2017) applies this logic specifically to the influence of contracts – as an important type of formal organisational structure – on individuals' trust formation processes. He argues that the type of contract design – through its respective focus on controlling and coordinating aspects – induces specific calculative and noncalculative mechanisms behind the development of trust. For instance, Lumineau (2017, p. 1560) suggests that:

> Contractual control, through its focus on the definition on the acceptable behaviors in the relationship and the penalties in case of violation of these rules, enables partners to make a more accurate assessment of the risks and the payoffs. It helps parties to assess the risks with the potential gain for the trustor and the trustor's potential loss if the trustee does not fulfill its expectations (Coleman, 1990). As such, contractual control increases the type of information necessary to make a deliberative cost-benefit analysis, which is the basic mechanism behind calculative decision making. [...] By reinforcing the probabilistic side of decision making and the informational requirements to deal with risk, contractual control supports trust involving calculative judgments.

Similarly, *informal* organisational structures can play a significant role in individuals' trust formation processes. As individuals in organisations come together to determine the trustworthiness of a target (e.g. of a particular prominent person, the organisation itself, or another organisation), they engage in joint sense making efforts that, over time, become habitualized and taken for granted. In this way, not only the procedures that go into trustworthiness assessments, but also certain trust judgments themselves, diffuse and converge across individuals (Barley & Tolbert, 1997). For example, individual organisational members may come to learn that, we – as an organisation – are generally suspicious of outsiders, tend not to share privileged information with other organisations, and ultimately prefer not to trust third parties when we can avoid it. Organisational trust can thus become highly institutionalised. To a certain degree, it can even become independent of the individuals involved and thus remain stable even though individuals may change (Kroeger, 2012; Schilke & Cook, 2013). In this view, organisational trust can become an intersubjective phenomenon that is reflected in a collective orientation (Ferrin, Bligh, & Kohles, 2007; Zaheer, McEvily, & Perrone, 1998) – an informal organisational structure that can substantially affect the trust formation of organisational members and that can last over relatively long periods of time (Janowicz-Panjaitan & Noorderhaven, 2009).

We thus suggest that by inducing specific information-processing and decision-making mechanisms, organisational structures substantially influence (i.e. either constrain or enable) trust development at the individual level of the organisational member. Both formal and informal structures work as perceptual filters that direct employee attention to relevant trust cues. They influence how individual actors collect, process, and distribute information. Specifically, organisational structures guide individuals at different stages during the formation of their expectations. First, structures shape the motivation to share information (i.e. motivational mechanisms). Second, structures shape what information is attended to and how attention to problems and alternatives is sustained (i.e. attentional mechanisms). Third, structures shape the interpretation of information (i.e. interpretive mechanisms), steering trust judgment and decision making. Organisational

structures are therefore critical factors guiding how individuals recognise and notice potential issues (i.e. focus of attention), diagnose situations (i.e. problem representation and formulation), search for solutions (i.e. deliberation and reflection), and screen different alternatives regarding trust.

How individuals' trust manifests in organisational structures

In addition to the top-down effect, we also consider how individuals' trust perceptions can 'spiral up' and diffuse from the individual to the organisational level. While organisational members' trust deliberations may of course be informed by relevant organisational structures (as discussed above), we can envision several scenarios in which these structures have only limited effects. For instance, newcomers to an organisation or individuals low in organisational identification may be ignorant of, or deliberately resist, organisational norms for trust formation. Moreover, when it comes to evaluating a novel trust target for which no pre-existing organisational-level trust judgment is readily available or a target that calls for a significant recalibration of trust (e.g. due to a blatant breach of trust), the novelty of the situation may require stepping outside established organisational templates, thus opening up the potential for individual-level dispositions and preferences to play an important role in the trust assessment process. To the extent that these individual dispositions and preferences are distinct from those of the broader organisation, the focal individual may use trust formation heuristics that differ from those commonly employed by the organisation and/or may ultimately come to divergent trust assessments. With existing organisational structures no longer fully determining the trust formation process, the individual may thus begin to break with existing organisational procedures and – perhaps unknowingly – start to develop a new pattern of trust formation routines.

Having formed her own trust beliefs, the individual will start to engage in workplace interactions and begin to disseminate these beliefs to other organisational members. At this stage, the individual's deviating trust beliefs may collide with established organisational norms held by these other organisational members. The outcome of the tension between individual- and organisational-level dispositions will depend, among other things, on the focal individual's social influence in the organisation. Specifically, in order for divergent trust beliefs to make it from the individual to the organisational level, the opinions of the individual must be visible to the broader organisation, and the organisation must value those opinions (Friedkin, 1993). For example, the focal individual's confidence in her trust judgment, her personal skills in pitching her trust beliefs to coworkers, the strength of her connections to important other members in the organisation, and more broadly her power, charisma, and status will affect whether or not her trust belief will be able to diffuse to the organisational level.

To the extent that the new trust belief successfully spreads within the organisation, it may over time come to be seen as an objective truth, and new behavioural routines consistent with this truth will emerge. In other words, trust habituates and becomes ingrained in revised patterns of behaviour in the organisation. At this point, the revised trust belief has obtained a certain firmness and can no longer be readily changed by any single individual, which is why we may speak of organisational-level trust at this point (Schilke & Cook, 2013).

There is also evidence that, beyond their effect on the emergence of informal trust structures at the organisational level, individuals play a significant role in shaping formal organisational structures related to trust. In particular, Vlaar, Van den Bosch, and Volberda (2007) convincingly argue that individuals' experiences, especially at the beginning of a relationship with a new trust target, can have long-lasting imprints on the organisational structures put in place to govern that relationship. Especially when individuals come to experience a target as distrustful, they will advocate for formal control mechanisms to be put in place, while initially experienced trust reduces the perceived need for such mechanisms. Strong formalisation and control, once put into place, may obviate the need for further trust development in subsequent relationship stages and may even act as a signal to other organisational members that the target should not be trusted (Lumineau, 2017; Malhotra & Lumineau, 2011; Poppo & Zenger, 2002). As such, individuals' initial trust perceptions may translate to the organisational level through formal structures, such as formalisation and control.

Overall, we thus suggest that individual organisational members can shape trust at the organisational level. Individuals may, under certain circumstances, come to revisit existing organisational trust beliefs and procedures. Subsequently, new trust perceptions may diffuse from these individuals to the broader organisation through joint sensemaking mechanisms. Ultimately, this bottom-up process may result in the habituation of revised trust dispositions.

Discussion and future research

Drawing on an embedded agency perspective, we advocate a cross-level analysis of trust development that links the individual and organisational levels within the same conceptual framework to show how and why micro and macro factors do not work in isolation but are fundamentally intertwined. For analytical purposes, we organised our argumentation around a distinction between top-down and bottom-up processes, although we acknowledge that these two types of processes may occur simultaneously. It is clear that we are only at an early stage of studying trust across levels of analyses, and we encourage future research of both empirical and conceptual nature to test and expand our framework.

In addition to issues of concomitance, one problem that empirical investigation of our model may face is the issue of causality between individual and organisational factors. We suspect that scholars willing to disentangle which of these sets of factors come first may face many operational challenges. In this respect, we believe that an experimental approach will be particularly promising to help trust scholars establish causality by eliminating extraneous factors and endogeneity issues (Bitektine, Lucas, & Schilke, 2018). Experimental methods can also be particularly useful for separating reciprocal effects, as the recent study by Døjbak Håkonsson et al. (2016) nicely exemplifies.

Another line of inquiry to extend our multi-level model is to pay greater attention to the dynamic aspects of trust development as it unfolds over time. It would be especially interesting to investigate the risk of vicious cycles, where a minor reduction of trust at one level translates into a heightened change at another level, which in turn leads to progressively greater reductions in trust. For example, negative expectations may lead individuals to develop rigid and prevention-focused structures, which can foster self-fulfilling prophecies (Ghoshal & Moran, 1996). Clearly, we need to better understand how to prevent the development of

such vicious cycles of progressive trust destruction. Research into trust cycles may raise interesting questions regarding the possibility to 'reboot' a relationship to either stop a spiral of trust reduction – through, for instance, a change of boundary spanners or the renegotiation of formal agreement (Brattström, Faems, & Mahring, 2018) – or to restart trust building by overcoming existing inertia at the individual and/or organisational level.

For the sake of parsimony, our multi-level model focuses on the development of trust. However, in line with research distinguishing trust and distrust as two distinct constructs (Guo, Lumineau, & Lewicki, 2017; Lewicki et al., 1998; Luhmann, 1979), we see many opportunities to extend our analysis to integrate the development of distrust across levels of analysis. Indeed, as suggested by recent research (Bijlsma-Frankema, Sitkin, & Weibel, 2015; Dimoka, 2010; Lumineau, 2017; Reimann, Schilke, & Cook, 2017), it is likely that the mechanisms underlying the dynamics of trust and distrust development differ fundamentally.

Another promising way to expand our model, with its focus on the individual and organisational levels, is for future research to introduce additional levels of analysis, such as the team or the country level. Such an approach, we believe, would fruitfully extend and enrich the logic deployed in this article.

Finally, we encourage future research to analyze the contextual factors that might strengthen or weaken the mechanisms suggested in our multi-level model of trust development. For instance, we call for research on how the mechanisms described in our model may operate across different types of individuals and different types of organisations. Individuals' training, psychological traits, demographic background, education, or (official and unofficial) status within the organisation are likely to influence the nature of the processes underlying trust development. Moreover, certain types of organisations may be more open to change in their trust dispositions and routines through individuals, whereas such disruptions will be harder to achieve in other organisations.

We believe the time is ripe for trust scholarship to advance our multi-level understanding of trust. Such inquiries would particularly benefit from more collaboration among micro and macro trust scholars (Polzer, Gulati, Khurana, & Tushman, 2009). As we demonstrated here, trust is a complex construct that cannot be reduced to individual behaviours, nor can it be fully explained through organisational structures. We hope our cross-level model of trust development provides an impetus for further exploration of the processes, interactions, and dynamics enacted by organisational actors and contexts across multiple levels.

Disclosure statement

Notes on contributors

Fabrice Lumineau is an associate professor in strategic management at the Krannert School of Management, Purdue University. He received his Ph.D. from HEC Paris. His research interests include trust and distrust, the interplay between contractual and relational mechanisms, and conflicts in inter-organisational relationships. He has published in *Academy of Management Annals*, *Academy of Management Journal*, *Journal of International Business Studies*, *Journal of Management*, *Journal of Operations Management*, *Organization Science*, *Organization Studies*, and *Strategic Management Journal*, among other journals. He currently serves on the editorial review boards of *Academy of Management Journal*, *Strategic Management Journal*, and *Strategic Organization*.

Oliver Schilke is an assistant professor of management and organisations (tenure track) and an assistant professor of sociology (by courtesy) at the University of Arizona. He received his Ph.D. from UCLA. Oliver is primarily interested in organisational theory, and much of his extant research has examined issues related to trust and routines, often in the context of interorganizational relationships and applying an institutional-theory lens. His articles have been published in *Academy of Management Annals*, *Academy of Management Journal*, *American Sociological Review*, *Journal of Applied Psychology*, *Proceedings of the National Academy of Sciences*, and *Strategic Management Journal*, among other journals. He currently serves on the editorial review boards of *Journal of Management*, *Journal of Trust Research*, and *Strategic Organization*.

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