DIALOGUE

Performing Theories, Transforming Organizations: A Reply to Marti and Gond

Marti and Gond (2018) recently attempted to extend our understanding of how theories shape social reality by developing a process model of performativity and by articulating the boundary conditions that delimit that process. While we laud Marti and Gond's attempt to develop an analytical template to study the effectiveness and influence of theories, and fully share their overarching sentiment about the substantial potential for this kind of theorizing effort, we believe there are two fundamental flaws in their framework. First, Marti and Gond conceptualize a theory as an objectified, stand-alone entity. Second, they characterize the effects of a theory in terms of a linear, sequential process. In contrast to this view, we conceptualize a theory as inherently relational (i.e., it must be considered in conjunction with actors, artifacts, practices, and other theories) and characterize the effects of a theory in terms of dynamic, nonlinear processes. We believe that conceptualizing theories relationally and characterizing the effects of theories dynamically enhance the generative potential of performativity for management research.

WHAT ARE THEORIES?

Marti and Gond define theories as "analytical systems that link different concepts in order to explain or predict empirical phenomena" (2018: 489). They treat such theories as isolated, objectified entities that are distinct from their context. For example, they represent theory as being essentially separate from other contingent factors (such as actors and artifacts) both in their process model (2018: 490) and in their depiction of boundary conditions (2018: 493).

In contrast, we posit that it is more useful to conceptualize theories as inherently relational. According to performativity scholars, theories do not exist in isolation but are instead performed

within a broader assemblage that connects actors, artifacts, and practices (Callon, 1998). On this basis, D'Adderio and Pollock advocated relinquishing interpretations of theory "as a solid and discrete feature of products and/or organizations" and suggested that "[scholars] study [theory] as an emergent phenomenon, one which is deeply and inextricably entangled with . . . the sociomaterial practices that perform it" (2014: 1814). In other words, an assemblage is a necessary and integral prerequisite for the performative realization of a theory and its embedded assumptions.

We illustrate this point by considering one of central examples in Marti and Gond's article—MacKenzie and Millo's (2003) study of performativity. Marti and Gond (2018: 499) apply their model to show how the Black-Scholes theory stimulated experimentation and produced anomalies that led to the adoption of new practices in a "highly visible" (2018:) context. However, their abstraction of the MacKenzie and Millo account glosses over a fundamental insight from the original study: understanding the influence of the Black-Scholes model on the market required a simultaneous consideration of both the theory and the contextual features that supported its realization. For instance, market actors needed to develop novel calculative practices to overcome "practical difficulties" associated with applying the theory and also had to establish a material infrastructure through which to calculate and communicate option pricing (MacKenzie & Millo, 2003: 124). As a consequence of these sociomaterial entanglements, actors adjusted the theoretical model to incorporate the Cox-Ross-Rubinstein model (MacKenzie & Millo, 2003: 128). This canonical example of performativity thus empirically shows that a theory is inextricably intertwined with the actors, artifacts, and practices that coproduce it.

A performative perspective that conceptualizes theories as relationally connected with assemblages of actors, artifacts, and practices provides scholars with several useful affordances. First, a relational perspective on theories allows scholars to explain more effectively the central, mediating importance of materiality (e.g., Latour, 2005) through artifacts such as market devices (Callon &

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Muniesa, 2005), calculative equipment (MacKenzie, 2009), or a 2×2 graph (Pollock & D'Adderio, 2012). Second, a relational perspective allows scholars to study the effects of competing theories, since a theory rarely operates independently of other theories (D'Adderio, 2017; D'Adderio & Pollock, 2014; Mason, Kjellberg, & Hagberg, 2015). Finally, a relational perspective allows scholars to study how a theory changes over time (MacKenzie, 2009), since putting a theory into practice or embedding a theory into material objects may fundamentally change the nature of the theory (Glaser, 2017; Pollock & Williams, 2016). We thus suggest that studying theories apart from their assemblage risks objectifying the theory while also preventing a deeper understanding of how theories may (or indeed may not) become performative.

WHAT ARE THE EFFECTS OF THEORIES?

Marti and Gond develop a process model that builds on MacKenzie's (2006) classification of different types of performativity in order to delineate three sequential steps that reflect a linear progression—how (successful) theory leads to "experimentation," produces "anomalies," and consequently leads to "practice shifts"—causing new theories to become self-fulfilling (Marti & Gond, 2018: 490). Additionally, they suggest that the self-fulfilling effects of theories are moderated by boundary conditions such as material devices, actors that perform as "powerful backers," visibility of effects, counteracting behaviors, actors' sensegiving, and discontent with the status quo (Marti & Gond, 2018: 493). Marti and Gond thus conceptualize theory as a self-propelled entity that diffuses across space and time, generating impacts of varying effect owing to encountering differential degrees of resistance (see also Latour & Woolgar, 1986: 50).

In contrast, we characterize the effects of theory in terms of nonlinear, dynamic processes. We suggest moving beyond an essentialist, binary lens that sees theories as either "true" or "false" (Callon, 2007) toward a view that recognizes how theories shape social reality by degrees and that, importantly, oscillates over time. Theories do not completely map onto or control real-world outcomes; there are always overflows that occur as theories are put into practice in situated actions (D'Adderio, 2008). Consequently, characterizing the effects of a theory requires us to understand how the theory frames actions, and then how the

situated actions that do not fit with the theory go back and impact the theory.

MacKenzie and Millo's (2003) canonical example of performativity also illustrates this point. The authors showed how, despite the model's success having been described as "a simple self-fulfilling prophecy . . . matters were . . . more complex, and more interesting than that" (2003: 123). After showing how the Black-Scholes model initially underpriced options and then became "incorporated into the CBOE's [Chicago Board Options Exchange] informational infrastructure" (2003: 127), they showed that subsequent to the stock market crash in 1987, the model changed again. This was because "the model's fit . . . [had] again been poor, especially for index options, in the crucial matter of the relationship between strike price and implied volatility" (2003: 130). This had led to placing on top of the algorithms of the Cox-Ross-Rubinstein model "a layer that mixes market processes and practitioner know-how" (2003: 131). The notion of an actor-involved construction of "skew" is thus an integral part of the Black-Scholes performativity story that involves both understanding the theory relationally and recognizing that the performative effects of the theory shift over time.

We believe that characterizing the effects of theory as nonlinear and dynamic is particularly important for performativity research for two reasons. First, by avoiding a linear, self-propelled model of a theory's effects, we can capture the more subtle and complex dynamics through which theories are performed, such as different degrees of performative outcomes (D'Adderio, 2008), performative struggles between different theories (D'Adderio, 2017; D'Adderio & Pollock, 2014), or the impact of shifts in relational dynamics between the distinct components of an assemblage (MacKenzie & Millo, 2003; see also Garud, Gehman, & Tharchen, 2018). Second, by avoiding the conceptualization of the effects of performativity as a binary outcome, we study the generative, unintended consequences of theories. For instance, Glaser, Fiss, and Kennedy (2016) showed how market actors in the display advertising industry used financial market theories through practices of "generative bending" that created practices not previously used in either display advertising or financial markets. In short, by only studying the linear impact of a theory—rather than studying the dynamic, nonlinear processes of design and redesign and the

simultaneous production and consumption of theory—we can easily lose sight of the processes by which performative outcomes are generated, the diversity of the performative outcomes themselves, and how these outcomes oscillate over time.

TOWARD A TRANSFORMATIONAL PERSPECTIVE ON PERFORMATIVITY

Marti and Gond have developed a view of performativity that relies on a conceptualization of theories as objectified, stand-alone entities and a characterization of the effects of theories that is linear and bounded. In contrast, our fieldwork (D'Adderio, 2017; D'Adderio & Pollock, 2014; Glaser, 2017; Glaser et al., 2016; Pollock & D'Adderio, 2012; Pollock & Williams, 2016) shows how theories are deeply entangled in and constituted by relational, sociomaterial dynamics, as well as how theories shape contexts and are, in turn, shaped over time. Consequently, we believe that management scholars can best develop a performativity perspective by conceptualizing theories in relational terms and by characterizing the effects of theory as dynamic and nonlinear.

We propose that our distinct perspective on performativity allows for a richer exploration and theorization of a range of new and established organizational phenomena. First, rather than limiting analysis to the influence of nascent theories, our approach allows for the investigation of the effects of both new and existing theories along their life cycle or "biographies" as they emerge, mature, and travel across actors, organizations, and institutional fields (e.g., Czarniawska & Sevón, 2005; D'Adderio & Pollock, 2014; Pollock & Williams, 2016). Second, rather than focusing solely on academic theories that feature a pronounced social and institutional gulf between those producing and those consuming theory, our perspective allows us to study the performation of "folk theories" and other instruments as they shape business realities, as in the case of Gartner's Magic Quadrant (Pollock & D'Adderio, 2012) or popular strategy tools such as Boston Consulting Group's Growth/Share Matrix (Ghemawat, 2009). Third, rather than reducing the effects of theories to external "anomalies," we can study how overflows—as an intrinsic and necessary by-product of the application of theory to organizational life—reconfigure both organizations and theories themselves, as in the case

of invisible overflows or "errors" (D'Adderio & Pollock, 2014).

In conclusion, although organizational scholars have traditionally utilized foundational constructs such as routines (Feldman & Pentland, 2003; Nelson & Winter, 1982), resources (Barney, 1991), and capabilities (Dosi, Nelson, & Winter, 2000), they have, to date, mostly neglected theories—despite the undisputed influence of theories on processes, organizations, fields, and institutions. For this reason, we welcome Marti and Gond's contribution as an initial step toward understanding the effects of theories. However, our analysis points to the need for a much more sophisticated and nuanced approach to the study of theories. We believe that a transformational perspective on performativity that conceptualizes theories relationally and characterizes the effects of theory as dynamic and nonlinear will encourage a deeper discussion of the effects of theories and their power to create and shape our world.

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