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Unboxing the Black Box: Towards a Typology of Theorizing from Qualitative Single Case Studies

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SUMMARY

The literature in the field of organization and management studies has given scant attention to the process of theorizing. This becomes a complete ‘black box’ when it comes to qualitative single case study research, which seems ironic given that theorizing is one of the strengths of single case studies. To understand the process of theorizing from single case study research, we employ qualitative content analysis on single case study papers published in Organization Science and Organization studies from 1997 until 2018. We find four distinct processes of theorizing, namely narrative theorizing, story corroboration theorizing, variational theorizing, and counterfactual theorizing. Our findings do not only challenge the existing view of the literature on single case study research, but also contend for the use of more pluralistic processes of theorizing that enable creative and newer ways of thinking for scientific discoveries in the field of organization and management studies.

Track: Research Methodology

Word Count: 6,998
Qualitative case study research has gained increasing legitimacy in the field of organization and management studies (Eisenhardt, 2007; Hartley, 2004; Welch, Plakoyiannaki, Piekkari & Paavilainen, 2013). Case study research is considered interesting for building theory (Bartunek, Rynes, & Ireland, 2006; Eisenhardt, 2007), and also for theory testing (Gibbert, et al., 2008; Ragin & Schneider, 2011; Szulanski & Jensen, 2011). It is therefore not surprising to see that in recent times, methodological texts on case study research have increased (Piekkari, Welch, & Paavilainen, 2009). However, while we see substantial attention given to improving methodological tools for qualitative case study research, scant attention has been given to understanding the process of theorizing (Welch, Piekkari, Plakoyiannaki & Paavilainen, 2011). This lacuna is remarkable since one of the alleged strengths of case studies, and in particular single case studies is theorizing, i.e. constructing and even ‘reconstructing’ concepts (Welch, Rumyantseva, Hewerdine, 2016) that provide the field of organization and management studies with foundational theory-building blocks (e.g., Bartunek, et al., 2006; Burgelman, 1983; Chandler, 1990; Penrose, 1960; Pettigrew, 2014).

We find less than a handful of methodological articles that discuss explicitly the process of theorizing from qualitative case study research (Piekkari, et al., 2009; Welch, et al., 2011; Welch, et al., 2013), let alone attempt to open the ‘black box’ when it comes to understanding the theorizing process from single case study research. This oversight might be attributable to doubts regarding the suitability of case study research in general, and single case study research in particular for scientific advancement (Eisenhardt, 1989; Eisenhardt, 1991; Eisenhardt & Graebner, 2007; Gerring, 2004; Gerring, 2007; Goldthorpe, 1997; King, Keohane, & Verba, 1994; Miles & Huberman, 1994). Several methodologists are skeptical about the intrinsic value (and even rigor) of single case study research, and advocate multiple case study research as a remedy (Gerring, 2004; Eisenhardt, 1991; Eisenhardt & Graebner, 2007).
This debate famously goes back to ‘better stories’ versus ‘better constructs’ between Dyer & Wilkins (1991) and Eisenhardt (1991). Dyer & Wilkin (1991) consider single case study research as the optimum form of case research as it provides in-depth contextualized understanding of investigated phenomena, therefore leading to ‘better stories’. On the contrary, Eisenhardt (1991) argues for the superiority of multiple case study design due to its comparative logic and emphasis on patterns and regularities that allow the generation of ‘good’ generalizable theory. Hence, while ‘better stories’ focus on a rich contextualized understanding of the phenomenon, ‘better constructs’ focus on the variability aspect of the constructs to explain the phenomenon. This debate still proliferates, and this tension between these two approaches is still visible (see Gehman, Glaser, Eisenhardt, Gioia, Langley & Corley, 2017).

We focus on single case study research for three reasons. First, single case studies come in fundamentally different designs (Yin, 2013). One is the so-called single holistic type, which features one case and no sub-units of analysis; a second variant is the single-embedded case study, where we see sub-units of analysis within the single case. In many ways, therefore, the single case study encapsulates, in one design, the two apparently contrasting perspectives above, and providing us with an application context to compare the traditional views shared by the proponents and opponents of single case study research. We argue against proponents of single case study design that single case study research is only suitable for producing ‘better stories’ (Dyer & Wilkins, 1991; Siggelkow, 2007). At the same time we also argue against opponents of this design that single case study research is not suitable for ‘better constructs’ because the design lacks a replication logic (Eisenhardt, 2007; Gehman, et al., 2017; Gerring, 2004). In fact in this paper, we argue for pluralistic approaches (Kellert, Longino, & Waters, 2006; Swedberg, 2014; Welch et al, 2011; Welch & Piekkari, 2017) to the process of theorizing (Delbridge, 2013; Welch et al, 2011) from single case study research.
Second, to the best of our knowledge, no previous study has systematically explored the theorizing process from single case study research. Even though, discussions of single case research exist (e.g. Burawoy, 2009; Stake, 1995; Yin, 2013), they are rather fragmented and concentrate on aspects of design such as sampling strategies (Fletcher, Zhao, Plakoyiannaki, & Buck, 2018). Therefore, our study will be an initial attempt to shed light into the theorizing aspect of single case study research.

Third, the field of organization and management studies has been dealing traditionally with unique, dynamic and complex phenomena (Arnould, Price, & Moisio, 2006; Brannen & Doz, 2010; Hartley, 2004; Johns, 2006; Welch, et al., 2011). Viewed in this light, single case study research as a methodology is well suited for handling uniqueness and dynamism (Siggelkow, 2007) as well as complexity (Flyvbjerg, 2006), because it can provide detailed, holistic accounts of human social life and capture the operation of multiple factors on an existing situation over the course of time (Dyer & Wilkins, 1991; Yin, 2013).

To understand the theorizing process from single case study research in the field of organization and management studies, we analyze empirical papers published in two top tier academic outlets of the field, Organization Science and Organization Studies, from 1997 until 2018. We depart from conventional methodological text on case study research as we look at how theorizing is being performed in practice for single case study research. Our analysis advances a typology of four different types of theorizing processes from single case study research: narrative theorizing, story corroboration theorizing, counterfactual (thought experiment) theorizing, and variational logic theorizing. It suggests that single case study research is suitable for both ‘better stories’ as well as for ‘better constructs’ and identifies different theorizing processes that enable case study scholars to make powerful and meaningful theoretical contributions.
THEORETICAL BACKGROUND

Theorizing

The word *theorize* that originates from the Greek language, means to observe and contemplate (Swedberg, 2014). In this paper, we define *theorizing* as the process of “observing something, penetrating something, and finding something out” (Swedberg, 2012: 9). Simply put, *theorizing* is a process that generates theoretical insights. It entails different activities, which may include “abstracting”, “generalizing”, “relating”, “selecting”, “explaining”, “synthesizing” and “idealizing” (Weick, 1995: p 387). While *theorizing* can be done in different ways, the methodological literature has paid little attention to *theorizing*, largely because of the excessive attention given to its end product that is *theory* (Swedberg, 2014; Welch et al, 2011). Therefore, today, organization and management studies scholarship lacks diverse processes of *theorizing* (Delbridge, 2013; Piekkari & Welch, 2011; Welch et al, 2011), despite the numerous calls to embrace more pluralistic approaches to *theorizing* (Brannen & Doz, 2010; Delbridge, 2013; Piekkari, et al., 2009; Ragins, 2015; Welch, et al., 2011; Welch & Piekkari, 2017).

Case Study Research

Case study research is being widely used in organization and management studies (Eisenhardt, 2007; Hartley, 2004; Welch, et al., 2013). Case study research is used for theory building (Eisenhardt, 1989; Eisenhardt, 2007; Gibbert, Ruigrok, & Wicki, 2008; Ragin & Schneider, 2011), as it can provide “ground-breaking insights” (Dubois & Gibbert, 2010: 130), and can also be used for theory testing (Gibbert, et al., 2008; Ragin & Schneider, 2011; Szulanski & Jensen, 2011). Therefore, in light of this understanding we define case study research as a
detailed empirical investigation of a phenomenon in its naturalistic context (Hartley, 2004; Yin, 2013) with the purpose of confronting theory with the empirical world (Piekkari et al., 2009).

From design perspective, case study research can be classified into four categories, which are single holistic, single embedded, multiple holistic and multiple embedded (Yin, 2013). The single holistic design focuses on just one case, whereas the single embedded design focuses on the case and embedded units present within the case. This logic also extends to multiple holistic and multiple embedded designs, with the only difference being that instead of one case these designs have multiple cases. An important distinction to make here is the difference between empirical units and embedded units (Fletcher & Plakoyiannaki, 2011). Empirical units serve the process of data collection and generate insights about embedded units (e.g., managers that are interviewed but are not the focus of the research) (Ragin, 1992); whereas embedded units are sub-units within the case that are of interest to the researcher (Yin, 2013). Therefore, in contrast to empirical units, the researcher would want to analyze, infer and discuss the embedded units, which are the focal entities reported in the study findings.

This distinction between multiple and single case design has sparked a long-standing debate that started when Dyer & Wilkins (1991) published a rejoinder to Eisenhardt (1989). In this rejoinder, they stressed that Eisenhardt (1989) had given undue preference to multiple case study design over single case study design. They dispute that “she focuses attention on general constructs, not the context of the constructs and the role these constructs play in a particular setting” (Dyer & Wilkins, 1991: 614). They go on to argue that single case study design are important primarily because it allows for deep contextualized understanding of the case, which is not possible with a multiple case study design. On the other hand in a reply to Dyer & Wilkins (1991), Eisenhardt (1991) makes her point that theoretical insights are only possible when “multi-
case comparative logic” (p 626) is used. While recently she does acknowledge the importance of single case study research, she still appears to prefer multiple case study design to single case study design (Eisenhardt, 2007; Gehman, et al., 2017). This is because multiple case study design provides “stronger base for theory building” which is “better grounded, more accurate, and more generalizable (all else being equal) when it is based on multiple case experiments” (Eisenhardt & Graebner, 2007: 27). While the debate of ‘better stories’ and ‘better constructs’ has traditionally been seen mainly from a design perspective; our contribution is the proposal that it can (and should) also be seen from a theorizing perspective. Our perspective points to a multi-functionality view of single case study design that can provide various processes of theorizing.

‘Better Stories’ and/or ‘Better Constructs’?

From a theorizing perspective, ‘better stories’ can capture ‘unique’ and ‘complex’ stories (Stake, 1995) that enable a researcher to provide a rich contextualized understanding of the phenomenon (Dyer & Wilkins, 1991; Siggelkow, 2007). It can provide insights into difficult aspects, which includes “organizational politics”, “culture”, “hidden agendas”, “taboos” and can also reveal “what people believe or want to believe happened”(Gabriel, 2004; p 23). This is because ‘better stories’ allow for a movement from surface level data to deeper levels of analysis, which allows for a more nuanced understanding of the phenomenon of interest (Dyer & Wilkins, 1991; Bülte, 2002; Langley, 2013; Stake, 1995). This, therefore, leads to “deeper and denser insights” (Blatter & Blume, 2008: p 317).

To develop ‘better stories’ through single case study research, a process lens holds an important role (Pentland, 1999). This is because stories often include process narratives, which embody a narration of time and sequence. Therefore, stories are suitable for developing “process theories and explanations” (Pentland, 1999: p 717). Process research can focus on the unfolding of events and the causal interaction between different factors that lead to specific outcome(s)
(Blatter & Blume, 2008), and therefore can include “comprehensive storylines” (Blatter & Haverland, 2012). While process research may have a simple fixed ordering of events, this is generally not the case where a process can have a variety of sequences (Pentland, 1995). At the same time, such complexity leads to a loss of generality (Pentland, 1999). Therefore, process research for developing ‘better stories’ can have several aims, which include establishing sequence of events, identifying mechanisms that explain how the sequence of events unfolded over time, understanding why the process progresses towards a particular outcome, and identifying broad patterns (Abbott, 1990; Langley, 1999; Langley, Smallman, Tsoukas, & Van de Ven, 2013; Van de Ven & Poole, 1995; Delbridge, et al 2013). It is for this reason ‘messiness’ is welcomed, and in Langley’s own words when undertaking this approach “you need to include as much richness as possible in your account, so that the readers themselves can see to what degree the story you are telling finds resonance” (Gehman, et al., 2017: 295).

‘Better constructs’, on the other hand, focuses on the variability aspect of the constructs observed through a single case study. This approach to theorizing is also known as, variable-oriented, co-variational or variance model approach to case study research (Blatter & Haverland, 2012; Blatter & Blume, 2008; Gerring, 2004; Langley, 1999; Ragin & Rubinson, 2009; Ragin & Schneider, 2011). As Eisenhardt points out that “in theory building from cases, the researcher is trying to, on one hand, control the extraneous variation, and on the other hand, focus attention on the variation of interest” (Gehman, et al., 2017: 5). The logic is, therefore, to see how a change in the independent variable explains the variance of the dependent variable (Blatter & Haverland, 2012; Langley, 1999; Van de Ven, 1992). For a single case this comparison is only possible when the “case has several mini-cases within it” (Eisenhardt, 1989: 545). These embedded units within the case can be compared horizontally (diachronically) or vertically (synchronously) (Gerring, 2004). Horizontal (diachronic) contrasting compares two or more temporal embedded units
within the same case, while vertical (synchronic) contrasting compares different levels of analysis that are spatial in nature to each other (Burgelman, 2011). The aim of papers using this approach when conducting case study research is to generate theories that would be generalizable (Blatter & Blume, 2008; Gehman, et al., 2017). Overall, the foundational element of the ‘better construct’ approach is a focus on variables and not social actors, which makes “stories disappear” (Abbott, 1992: 428).

From this perspective, ‘better stories’ can be seen as a process-oriented approach, and ‘better constructs’ as a variance-oriented approach. In light of the above theoretical background, we seek to explore and understand the theorizing process in the application context of single case study research, which motivates the following research question: How do papers, published in Organization Science and Organization studies, theorize from single case study research?

**METHODOLOGY**

We collect our sample of single case study research papers, published in the last 20 years (1997-2018), from Organization science and Organization studies. We purposefully select these two journals for two reasons. Firstly, we want to capture differences in methodological priorities given by North American and European journals, while keeping the disciplinary context constant. As Meyer & Boxenbaum (2010) point out that North American scholarship gives stronger emphasis to empirical testing, whereas European scholarship focuses more on interpretivist, constructionist, and qualitative approaches. To capture these differences, we select Organization Science, a North American Journal, and Organization Studies as its European counterpart. Secondly, both journals are highly ranked and reputable in organization and management
research (Tahai & Meyer, 1999). By selecting papers published in these two journals, we know that the selected papers have already undergone a strict evaluation process; and therefore are high quality research papers.

To collect our sample of single case study papers we used *Business Source Premier*. For both journals, we performed a search query of “case study”, by specifying the date range from 1997 until 2018. Our search query returned a total of 447 papers, in which 325 papers are from Organization Science and 122 papers are from Organization Studies. We manually check each of the 447 papers. We include in our sample papers that explicitly state that they are doing a single case study research, while we discard any paper that used a quantitative or mixed method approach or used a multiple case study design. Our final sample narrows down to 32 papers from Organization Science and 53 papers from Organization studies.

To analyze papers in our sample we use the technique of qualitative content analysis (Kracauer, 1952; Kuckartz, 2014). The aim of this textual analysis technique is to classify large amount of textual data into meaningful and manageable categories (Hsieh & Shannon, 2005; Weber, 1990). In the first stage we examine the text inductively and extensively (Kuckartz, 2014; Patton, 2002), also known as open coding (Strauss & Corbin, 1998; Patton, 2002). We do it inductively as there is little to no available knowledge on the process of theorizing in single case study research. The inductive part of the analysis was incremental and detailed in order to explore consensus and develop a common understanding of emerging codes. We independently open coded papers (Strauss & Corbin, 1998; Patton, 2002), in which all three authors separately read the first five paper of the sample. For initial sensemaking, the research question acted as a guiding post.
By the end of this open coding stage, a preliminary set of guiding questions began materializing regarding the theorizing process in single case study papers. Therefore, in the second stage we refine and develop these initial set of guiding questions, for which we also refer the existing literature. By the end of this stage, we were able to come up with a final set of guiding questions as shown in table 1. We purposefully developed open-ended guiding questions to capture the complexity of the theorizing process.

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INSERT TABLE 1 HERE
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In the third stage, using the guiding questions, we collect data on the design aspects and the theorizing approach of the case study. In collecting our data, we avoid a simple keyword search from the guiding questions, and therefore read each paper carefully to develop in-depth interpretations (Krippendorff, 2004; Kuckartz, 2014). For example, we find that papers are not very explicit about the presence of embedded units. Therefore, our criteria for determining embedded units largely depends on how much emphasis was given by the paper to these identified sub-units. If the paper emphasizes the sub-units beyond the data collection section, and if they play a critical role in the understanding of the phenomenon, we classify these units as embedded units. For example, Christianson et al. (2009) want to understand how learning happened through rare events. For this, they identify three rare events. The paper uses these rare events as embedded units of analysis throughout the write up, albeit without ever referring to these events explicitly as units of analysis. Therefore, under this premise we classify the three rare events as embedded units and not as empirical units.
In the final stage, after reading all papers and collecting the relevant text that answered our guiding questions, we code this text. Our coding allows us to search for general themes and patterns (Elo & Kyngäs, 2008; Patton, 2002). With this categorization activity, we were able to identify four approaches to theorizing for single case study research, i.e. narrative theorizing, story corroboration theorizing, counterfactual theorizing and variational logic theorizing. We now turn to our findings and explain each of these different categories of theorizing in detail.

**FINDINGS: TOWARDS A TYPOLOGY OF THEORIZING FROM SINGLE CASE STUDIES**

In this section, we discuss the findings that emerge after reviewing and analyzing single case study papers published in Organization Science and Organization Studies. By looking at the different reporting aspects of the papers as shown in table 1, we are able to cluster papers into four distinct theorizing processes for single case study research. We classify these processes of theorizing into a typology as shown in figure 1. The x-axis relates to the theorizing output, which captures the tension of ‘better stories’ on one end and ‘better constructs’ on the other end (Dyer & Wilkins, 1991; Eisenhardt, 1989; Eisenhardt, 1991; Gehman, et al., 2017). While, the y-axis captures the case study design, namely ‘holistic’ and ‘embedded’ (Yin, 2013). Each cell of the matrix produces four distinct processes of theorizing for single case study research, notably 1) narrative theorizing, 2) story corroboration theorizing, 3) comparative logic theorizing, and 4) counterfactual theorizing. At this point, it is important to acknowledge that papers often times would generate theoretical insights from more than one theorizing modes. We classify these articles on the dominant style of theorizing. In light of the different elements of theorizing that
we identified when coding papers (as shown in table 2), we now explain the four modes of theorizing in detail.

Quadrant 1: Narrative Theorizing (n=53)

Single case studies that draw on this theorizing approach are holistic in nature and focus on ‘better stories’. We find that most papers in this quadrant search for mechanisms, which can be broadly understood as recurrent processes of social interaction generating a specific kind of outcome, given specified initial conditions (Gerring, 2010).

For example, Venkataraman et al (2016) look for mechanisms that improve livelihood conditions of women and their families in rural India after a non-governmental organization (PRADAN) introduces market-based activities:

“We show the various activities PRADAN used to enact the two logics in developing a social structure and the underlying mechanisms that have led to improved livelihoods for rural families in India.” (Venkataraman et al, 2016 :727).

Other papers focus on the process by providing ‘thick descriptions’ (e.g., Argyres, 1999; Brown, Gianiodis, & Santoro, 2015; Cutcher, 2014; Kenny, 2016; Weiskopf & Tobias-Miersch, 2016). Therefore, the aim here is to understand the phenomenon of interest in the richness and complexity of its context (Langley, 1999). Yousifi (2014) explores the concept of ‘hybridity’ that is the impact of “colonizers’ efforts to impose their culture as well as the resistance of the colonized to this domination” (397). He, therefore, provides a detailed description regarding the process of hybridization in the context of US management practices that are being imported to Poulina (a Tunisian company):
“the Poulina example provides useful insights regarding the ambivalent nature of the hybridization process of management practices in developing countries by identifying the different layers and forms through which it manifests itself...Here, the hybridization process involves a dynamic interplay between three aspects: identity construction, local power relationships and the local framework of meaning.” (Yousifi, 2014: 414-415)

We also find few papers that discuss the process on different levels of analysis. For instance, Jenkins & Delbridge (2017) analyze how a company was able to normalize the use of ‘strategic deception’ in its work environment. They propose a framework that shows how senior management at the organizational level promoted and established a business based on ‘strategic deception’, which was maintained and reinforced by employees on the group level.

“We have set out our framework for understanding the normalization of workplace deception by examining the contextual, situational and inter-relational processes within an organization that practiced ‘strategic deception’. This study demonstrates how the integration of levels of analysis, combining organizational and group features, mutually reinforced deception and explains how deception was maintained and strengthened from the outset of the company to become an accepted, legitimate and positive feature of work for employees.” (Jenkins & Delbridge, 2017: 22)

Papers doing narrative theorizing also unpack complex relationships. They explain and visualize processes that have a web of causal factors, which affects the process at different points (e.g., Beck & Plowman, 2014; Rindova, Dalpiaz, & Ravasi, 2011), share a two-way relationship (e.g., Henfridsson & Yoo, 2013; Koza & Lewin, 1998), or involve a feedback loop or even look at paradoxical relationships (e.g., Cuganesan, 2017; Cutcher, 2014; Islam, Endrissat, & Noppeney, 2016).
Furthermore, ‘context’ in this quadrant, has an analytical and instrumental role in understanding the investigated process. This means that papers do not intend to control the context and context plays an important role in the analysis and explanation of the phenomenon. For instance, some papers explicitly acknowledge contextual triggers or factors that surround processes (e.g., Beck & Plowman, 2014; Rindova, et al., 2011). For instance, Henfridsson & Yoo, (2013) explicitly indicate contextual conditions for the process of trajectory shifts:

“We propose a process model (see Figure 3) that focuses on (a) contextual triggers that bring institutional entrepreneurs to a liminal period, (b) the action formation mechanisms that move entrepreneurs through the liminal period of trajectory shifts, and (c) its outcomes.” (Henfridsson & Yoo: 945)

In other papers, we see while context will play an important role in explaining the process, it will be so intertwined in the description of the phenomenon that it will be difficult to effectively delineate the context from the case. Generally, in these papers a separate section on context is absent (e.g., Argyres, 1999; Brown, et al., 2015; Sonenshein, 2016).

Finally, most single case studies using narrative theorizing do not discuss generalizability as they capture the uniqueness. For instance, Beck & Plowman (2014) position their case (the Columbia space shuttle disaster) as an outlier, which sheds light on the understanding of quick and successful coordinated response effort among different organizations:

"We argue that this response effort provided one of those rare opportunities...A qualitative focus on such outliers situates us within the “real world” of events and circumstances. Although our expectations for learning from outliers has little to do with our ability “to predict or control similar occurrences in the future” (March et al. 1991, p. 3)—a similar shuttle disaster is unlikely—we were able to capture influences of self-organizing mechanisms not evident in extant work.” (Beck & Plowman, 2014:1249)
We find that papers, which do discuss generalizability, tend to have an unapologetic tone and view generalization from a theoretical (analytical) perspective rather than from a statistical perspective (Tsang, 2014; Yin, 2013). For example, Vaara & Monin (2010) discuss analytical generalization:

"The analysis of this case can thus lead to analytical generalizations: findings concerning mechanisms that on due reflection can be generalized beyond this particular case" (Vaara & Monin, 2010:7-8).

Therefore, single case studies using narrative theorizing are interested in a process, by either looking for a mechanism or by providing a detailed full description of the phenomenon. They unpack complex relationships between different constructs, and treat context analytically. Papers in this quadrant do not discuss generalizability, however whenever they do, they do it unapologetically.

Quadrant 2: Story Corroboration Theorizing (n=13)

Single case studies using this mode of theorizing focus on ‘better stories’. Therefore, like narrative theorizing, papers in this quadrant are interested in processes. Futhermore, papers that draw on this approach to theorizing are also looking at complex relationships between concepts. Hence we see processes that have a causal web of factors (e.g., Dieleman & Boddewyn, 2012), or have a feedback loop (e.g Bijlsma-Frankema, et al, 2015; Stadtler & Van Wassenhove, 2016), or share a two-way relationship (e.g., Stadtler & Van Wassenhove, 2016), or have paradoxical relationships (e.g., Stadtler & Van Wassenhove, 2016).

A distinct aspect of story corroboration theorizing from narrative theorizing is the presence of embedded units within the case. The aim here is to show that each embedded unit
displays the same process. Therefore, there is within-case replication; however, it is literal in nature (Yin, 2013) that is embedded units selected will be similar in nature. This helps to corroborate patterns or story detected in the case, by showing that each embedded unit captures the same process. For example, Sonenshein (2009) proposes a process, which led to the emergence of ethical issues. For this, he identifies three “starting issues” experienced by the same organization in different points in time. We classify these three issues as temporal embedded units, and each of these embedded units experience the same process of ethical emergence, which are “trigger points” (e.g. broken promises) that creates “ambiguity”, this in turn forces employees to use an “employee welfare frame” to resolve the ambiguity. If unresolved this leads to an “emerging ethical issue”.

Furthermore similar to narrative theorizing the role of context in this quadrant is analytical, which means that the context plays an important in the analysis and explanation of the phenomenon, and is not controlled. However, unlike narrative theorizing, papers in this quadrant clearly delineate the context from the case. Papers would do this by either having a separate section for the context in the paper (e.g., Dieleman & Boddewyn, 2012; Sewell & Taskin, 2015; Sonenshein, 2009); or would explicitly identify contextual factors that could affect the process (e.g., Bijlsma-Frankema, Sitkin, & Weibel, 2015; Stadtler & Van Wassenhove, 2016). For example, Stadtler & Van Wassenhove (2016) explicitly discusses the role of the context in the paper:

"Our findings suggest that the coopetition context with its organisational and boundary-spanning, task-related components played a key role in helping the delegates cope with the tensions... In summary, the coopetition context as a combination organisational support and the boundary spanning task environment offered an important frame of reference ... for the delegates
to make sense of the competitive and collaborative logics as well as to find ways to integrate them.” (Stadtler & Van Wassenhove: 23).

Finally, papers in this quadrant, and in contrast to narrative theorizing, tend to have an apologetic tone towards generalizability:

“Second, our study of distrust between two organizationally embedded groups raises questions about the generalizability of our model to non-organizational contexts.” (Bijlsma-Frankema, et al., 2015: 1034)

“We based ourselves on a single case study which may not be representative of other business groups and emerging economies.” (Dieleman & Boddewyn, 2012: 91)

Overall, single case studies using story corroboration theorizing are interested in processes, in which they unpack complex relationships between different constructs. These papers use embedded units, in the case, to corroborate the story being proposed. Furthermore papers in this quadrant clearly delineate the case from the context, and treat context analytically. Whenever these papers discuss generalizability, they do so with an apologetic tone.

**Quadrant 3: Counterfactual Theorizing (Thought Experiment) (n=3)**

*Counterfactual theorizing or thought experiments* resembles a variance model, in which constructs can be manipulated (Shepherd & Suddaby, 2017; Weick, 1989). However, here there are no tangible or observable units of analysis (except the case itself), and comparisons are made through imaginary experiments (Folger & Turillo, 1999; Shepherd & Sutcliffe, 2011). As such, unlike the previous two approaches to theorizing, which focuses on processes, this quadrant has a variance-based logic.
Papers using this mode of *theorizing* are holistic in nature and their focus is on ‘better constructs’. They deal with uni-directional relationships between constructs. The treatment of context is descriptive. Papers tend to provide a separate section for the context (e.g., Bidwell, 2010; McKendrick & Carroll, 2001;), which allows unproblematic delineation of the case from the context. However, unlike the previous two approaches to *theorizing*, the role of context in understanding the phenomenon is limited. Since, *embedded units* are not present, all papers using this approach (e.g., Bidwell, 2010; McKendrick & Carroll, 2001) speculate by conducting variational analysis through thought experiments (Folger & Turillo, 1999; Shepherd & Sutcliffe, 2011; Shepherd & Suddaby, 2017; Weick, 1989) by grounding it in existing theories and literature:

“In this section, we step beyond Lycos, shift to deduction, and use our frame of reference to offer a set of speculations, which we develop as a sequence of propositions in the spirit of March (1981). These propositions are anchored in prior research, but they require theoretical refinement and empirical validation.” (Gavetti & Rivkin, 2007: 432)

As the above quote illustrates, the role of a priori theory is important for this approach to *theorizing*. Furthermore, most papers provide a set of propositions. These propositions display elements of variational logic, in which the variability aspect of the constructs are visible:

“As an industry matures further, the availability of more rational search based on deductive logic increases relative to the availability of other modes of search.” (Gavetti & Rivkin, 2007:433)

“The greater the information asymmetry between frontline managers and senior managers, the greater the probability of transaction misalignment when make-or-buy decisions require consideration of diverse information.”(Bidwell, 2010: 375)
Regarding generalizability, we find that papers normally do not discuss this, however when they do, they have an apologetic tone towards generalizability:

“The research presented in this paper describes a single firm, and caution must be taken in generalizing the findings to other setting.” (Bidwell, 2010: 375)

We find that single case studies using counterfactual theorizing (thought experiment) are interested in variance-oriented research, in which they analyze uni-directional relationships between different constructs. While embedded units are absent, papers drawing from this mode of theorizing leverage variability by developing thought experiments grounded in existing theories or literature. Furthermore, papers in this quadrant clearly delineate the case from the context, and treat context descriptively. Whenever these papers discuss generalizability, they do so with an apologetic tone.

**Quadrant 4: Variational Logic Theorizing (n=16)**

Papers using this approach to theorizing focus on ‘better constructs’, and therefore have a variance-based approach to theorizing. Like counterfactual theorizing, papers in this quadrant analyze uni-directional relationships between constructs. Papers also have a separate section that explain the context in detail. This allows for easy delineation of the context from the case (e.g., Adler, Goldoftas, & Levine, 1999).

To leverage variability, papers in this approach have *embedded units*. However, the distinct aspect of this theorizing approach, from *story corroboration theorizing*, is that the nature of within-case replication is ‘theoretical’ (Yin, 2013) rather than ‘literal’. This means that papers in this quadrant select *embedded units* that are different from each other, which enables variability between constructs. For instance Carlsen (2009) wants to understand how an
organization’s (Calculus) imaginations of practice is an important aspect of identity and its importance for organizational development. For this he identifies three different temporal embedded units:

"I have identified three distinct forms of imagination of practice of great consequence to the development of Calculus, each belonging to one of the following time intervals: (1) a period of turnaround, roughly between 1991 and 1994, (2) a period of strong growth between 1994 and 2001, and (3) a period of crisis in 2002-2003. My write-up of the case is an attempt to tell three tales within a larger story, with a subsequent within-case comparison across time " (Carlsen, 2006:135-136)

To highlight the variability aspect, papers in this quadrant normally tend to feature tables that clearly highlight the variation between constructs (e.g., figure 3 in Gilbert (2006)) or a graphical figures (e.g., figure 1 in Swärd (2016) & Montanari, et al. (2016)). Furthermore, while most papers do not discuss generalizability, whenever they do, they do it apologetically. Papers are also more explicit about highlighting the limitations of doing a single case study research:

"Further, some characteristics of our setting might limit the generalizability of the findings." (Montanari, et al., 2016: 817)

"While we believe that our study provides an important contribution to institutional theory, we also acknowledge its limitations, which stem particularly from the fact that our research is based on one case only." (Van Gestel & Hillebrand, 2011: 249)

In sum, single case studies in this quadrant exhibit a variance-based approach. To leverage variability they select embedded units that are different from each other. Papers in this quadrant normally use tables and graphical representations to highlight the variability aspect of
the constructs. They look at uni-directional relationships between different constructs, and have a descriptive treatment of context. They do not discuss generalizability. However whenever they do, they do apologetically, and are more explicit about highlighting the limitations of a single case study design.

**DISCUSSION & CONCLUSION**

As Folger & Turillo (1999) rightly point out “science thrives on diverse, eclectic methods of discovery in general (cf. McCall & Bobko, 1990), which includes theorizing.” (p 755). This is because *theorizing* is a process that plays an important role in understanding and improving theory (Swedelberg, 2014). In this regard, by moving beyond the methodological realm of case study research, the present four-fold typology constitutes a first attempt to explore the black box of *theorizing* processes for single case study research. This typology extends and goes beyond the traditional view that considers single cases as being only suitable for one *theorizing* approach that is generating ‘better stories’ through thick description or in-depth narrative analysis (Dyer & Wilkins, 1991; Siggelkow, 2007). In our typology, *narrative theorizing* represents this ‘traditional’ view of single case study design. A key contribution of our proposal is that it allows us to point to three additional processes of *theorizing*, all of them grounded in actual research practice. In particular, we find *story corroboration theorizing*, which is about reaffirming the ‘story’ through similar embedded units. We also find *variational theorizing*, which is about leveraging variability of ‘constructs’ through different embedded units, and finally *counterfactual theorizing*, which is also about leveraging variability of ‘constructs’, however using a thought experiment. The last two approaches of *theorizing* were more unexpected because these *theorizing* processes show that it is possible to adopt a variance-based approach in a single case study, a feature that is commonly attributed to multiple case study design (Eisenhardt, 1989;
Furthermore, counterfactual theorizing also challenges the view of critics, who view single holistic design as inherently incapable of using a variance logic, because it is just one case (Eisenhardt, 1989; Gerring, 2004). Therefore, our study shows that single case study research is not limited to one theorizing process, but in fact can provide four distinct processes of theorizing.

In light of our typology, our study makes three important contributions. First, we contend that single case studies offer powerful tools for theorizing. This is because single case studies are flexible, and therefore case study research can accommodate diverse set of “research questions”, “philosophical assumptions” and “variations in context” (Piekkari & Welch, 2011: 4). Furthermore, in our study we find rich approaches to theorizing. Since organization and management studies is increasingly addressing unique and complex phenomenon (Arnould, et al., 2006; Brannen & Doz, 2010; Hartley, 2004; Johns, 2006); single case studies in this regard can leverage diverse set of approaches and different types of case study design to address challenging issues in organization and management studies.

Second, organization and management studies is an ‘eclectic’ field that comprises of stakeholders from cross-disciplinary fields, and tries to address both academic researchers and industry practitioners (Corley & Gioia, 2011). In light of this, we advocate for more pluralistic outlook, and problematize the use of a single template for conducting single case study research. This is because a pluralistic approach to theorizing will enable scientific discovery (Folger & Turillo, 1999). Especially since in recent times there has been “fragmentation and lack of novelty” (Fisher & Aguinis, 2017: p 458). This lack of novelty has led to an overreliance on ‘theory borrowing’ from other disciplines (Oswick, et al., 2011). It is therefore not surprising to see increasing calls for more pluralistic discoveries (Kellert, Longino & Waters, 2006; Welch, et
al., 2011), and our findings also point in the same direction. For example, the general critique from the positivist camp has been that only “mini-cases within” the single case allows for theory development (Eisenhardt, 1989: 545). However, as our study shows that theorizing is possible even from single holistic designs, which cannot only use a process-oriented approach that is narrative theorizing, but also variance-oriented approach that is counterfactual theorizing. Therefore, there is a concerted need from the organization and management studies discipline to be more accepting and embracing to pluralistic approaches of theorizing (Brannen & Doz, 2010; Delbridge, 2013; Piekkari, et al., 2009; Ragins, 2015; Welch, et al., 2011; Welch, et al., 2013; Welch & Piekkari, 2017). This is because a homogenous style of theorizing will only impoverish the sensemaking process (Delbridge, 2013).

Finally, while we do see in our study diverse approaches to theorizing processes from single case study research, some of these processes are underutilized. As our study shows that, the dominant form of theorizing is narrative theorizing, while the least used approach to theorizing process is counterfactual theorizing. We believe that this is due to a lack of understanding regarding the theorizing process (Weick, 2014). Therefore, a lack of methodological literature on this topic might be the reason why we do not see pluralistic styles of theorizing in the field (Delbridge, 2013). An important insight from our study is that theorizing is inherently complex and diverse, and therefore it is important to understand it. Hence, we urge the community of organization and management studies to make a genuine and concerted effort for understanding this important process. In this regard, top-tier journals can play an important role in promoting this pluralistic outlook and understanding regarding the theorizing process, as they are gatekeepers for setting the direction of academic research (Corley & Gioia, 2011).
To conclude, while we see a growing acceptance of qualitative research in the field of organization and management studies (Bluhm, Harman, Lee, & Mitchell, 2011; Hartley, 2004; Shah & Corley, 2006), the notion of ‘pluralistic’ approaches to case study design and theorizing is still only partly understood and effectively lacking in practice. There has been a call for more creativity in the process of theorizing to promote “better and bolder theory” (Swedberg, 2014: p ix). However, as our study points that such pluralistic way of thinking will only happen when an understanding about it has been developed. Our study makes a first step in this direction by identifying four different styles of theorizing from one design (single case study research). By highlighting these different styles of theorizing, we hope to stimulate researchers to use and come up with more creative and newer ways of thinking for scientific discoveries in the field of organization and management studies.
REFERENCES


TABLE 1

<table>
<thead>
<tr>
<th>Details on case study and design aspects</th>
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<tbody>
<tr>
<td>Code 1</td>
<td>What is the case?</td>
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<td>Code 2</td>
<td>What is the level of analysis of the paper?</td>
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<tr>
<td>Code 3</td>
<td>Does the paper have embedded units?</td>
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<td>Code 4</td>
<td>Is the embedded unit temporal or spatial in nature?</td>
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<td>Code 5</td>
<td>Are the embedded units similar?</td>
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<tr>
<td>Code 6</td>
<td>Are the embedded units dissimilar?</td>
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<th>Theorizing aspects of single case study research</th>
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<td>Code 7</td>
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**Final List of Guiding Questions**
<table>
<thead>
<tr>
<th>Elements of theorizing</th>
<th>Narrative theorizing</th>
<th>Story corroborating theorizing</th>
<th>Counterfactual theorizing</th>
<th>Variational logic theorizing</th>
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<tbody>
<tr>
<td>Focus of the paper</td>
<td>The focus is on the story by either detailing the underlying mechanism or providing a detailed description of the phenomenon.</td>
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<td>The focus is on the variability aspect of the constructs.</td>
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<tr>
<td>Within case replication</td>
<td>No replication</td>
<td>Literal replication in which similar embedded units are selected</td>
<td>No replication</td>
<td>Theoretical replication in which different embedded units are selected</td>
</tr>
<tr>
<td>Relationship between constructs/concepts</td>
<td>Complex: causal webs, correlational relationships, feedback loops and paradoxical relationships.</td>
<td>Complex: causal webs, correlational relationships, feedback loops and paradoxical relationships.</td>
<td>Simple: uni-directional</td>
<td>Simple: uni-directional</td>
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<tr>
<td>Treatment of context</td>
<td>Analytical: The context plays an integral role in explaining the process, and the case and context can be delineated. In some papers difficult to delineate the context from the case as the focus is on detailing the phenomenon of interest.</td>
<td>Analytical: The context plays an integral role in explaining the process, and the case and context can be delineated</td>
<td>Descriptive: Details of the context provided. Context can be delineated from the case.</td>
<td>Descriptive: Details of the context provided. Context can be delineated from the case.</td>
</tr>
<tr>
<td>Discussion of generalizability</td>
<td>Unapologetic tone towards generalizability</td>
<td>Apologetic tone towards generalizability</td>
<td>Apologetic tone towards generalizability</td>
<td>Apologetic tone towards generalizability</td>
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FIGURE 1

Typology of theorizing from single case study research

Single holistic

Quadrant 1- Narrative Theorizing: Single case studies in this quadrant are interested in a process, by either looking for a mechanism or by providing a detailed description of the phenomenon. They unpack complex relationships between different constructs, and treat context analytically. They do not discuss generalizability, however whenever they do, they do it unapologetically.

Quadrant 3- Counterfactual theorizing (Thought experiment): Single case studies using counterfactual theorizing (thought experiment) are interested in variance-oriented research. They analyze simplistic relationships between different constructs. While embedded units are absent, papers drawing from this mode of theorizing leverage variability by developing thought experiments in which they compare data from the case with a priori theories or literature. Furthermore, papers in this quadrant clearly delineate the case from the context, and treat context descriptively. Whenever these papers discuss generalizability, they do so with an apologetic tone.

Better stories

Quadrant 2- Story corroboration theorizing: Single case studies using story corroboration theorizing are interested in processes, in which they unpack complex relationships between different constructs. These papers use embedded units, in the case, to corroborate the story being proposed. Furthermore papers in this quadrant clearly delineate the case from the context, and treat context analytically. Whenever these papers discuss generalizability, they do so with an apologetic tone.

Variational logic theorizing: Single case studies in this quadrant have a variance-based approach. To leverage variability they select embedded units that are different from each other. Papers in this quadrant normally use tables and graphical representations to highlight the variability aspect of the constructs. They look at simplistic relationships between different constructs, and have a descriptive treatment of context. They do not discuss generalizability. However whenever they do, they do apologetically, and are also more explicit about highlighting the limitations of a single case study design.

Better constructs

Single Embedded