THE MULTIPLICITY OF HABIT:
IMPLICATIONS FOR ROUTINES RESEARCH[1]

Scott F. Turner
Darla Moore School of Business
University of South Carolina
scott.turner@moore.sc.edu

Eugenia Cacciatori
Cass Business School
City University London
eugenia.cacciatori@city.ac.uk

Abstract

This paper explores habit as a foundational concept for routines research. We examine how habit and habitus have been conceptualized in psychology and sociology, giving particular attention to the role of deliberation and mindfulness. Drawing on this work, we develop a typology of habit that is based in the extent of deliberation by the individual performing an activity, and the variability in the conditions in which he/she performs it. We consider the implications of these insights on habit for two central perspectives of organizational routines, the capabilities perspective and the practice perspective, arguing that both can be advanced by closer attention to the idea of routines as interlinked habits.

Keywords
organizational routines, habit, habitus, mindfulness, capabilities, practice, process

September 21, 2015

The Multiplicity of Habit: Implications for Routines Research

1. INTRODUCTION

The concept of habit has drawn considerable attention in the research on organizational routines. Routines, as repetitive patterns of interactions (Becker 2004), have been described as the organizational analogue of individual habits (Hodgson 2003). Scholars have also explored the idea that routines result from the interlinking of individual habits, reflecting connections between individual learning and organizational routines (Cohen 1991; Cohen and Bacdayan 1994). This work has recently received renewed attention as part of efforts to strengthen the micro-foundations of organizational routines (Cohen, Levinthal, and Warglien 2014; Felin et al. 2012; Winter 2013).

While the value of habit as a core element of the microfoundations of routines is viewed differently across central perspectives in the literature (i.e., routines as capabilities, routines as practice), these perspectives have tended to adopt a similar view of habit as the automatic response dispositions of individuals (Knudsen 2008; Parmigiani and Howard-Grenville 2011). But in recent work, Cohen (2007; 2012) has been critical of this view of habit and has argued in favor of drawing upon conceptualizations of habit that see it as more flexible and generative. Whereas traditional views of habit as automatic emphasize its independence from conscious thought and its tendency to fire (and misfire), alternative conceptualizations tend to characterize habit as "pre-reflective", but entirely compatible with intentional and intelligent behavior. These differences in approaches and terminology across disciplines have made it difficult to understand the role of habit in individual behavior, which in turn inhibits the potential for habit to strengthen our understanding of organizational routines.

In this chapter, we aim to contribute to this understanding by clarifying some of the relationships between habit, deliberation, and mindfulness that are part of current debates in routines research (Laureiro-Martinez 2014; Levinthal and Rerup 2006; Winter 2013). To do so, we review how habit has been conceptualized in different research traditions. While work on habit in routines has primarily drawn from psychology (e.g., Dewey 1922; James 1890), we examine a wider spectrum of perspectives, encompassing both psychology and sociology. Drawing on this work, we develop a typology of habit that takes a broader and more integrative look at the concept. This typology provides an avenue for further understanding how routines unfold over time (e.g., Langley et al. 2013), suggesting that the stability and dynamics of routines as interaction patterns depend, in no small part, on the different types of habits that shape the behavior of routine participants. In the discussion section, we consider the implications of these insights on habit for the capabilities and practice perspectives of routines (Parmigiani and Howard-Grenville 2011; Turner 2014). While these perspectives differ in many ways, we argue that both can be advanced, and perhaps drawn closer together, through a broader conceptualization of habit.

2. LITERATURE BACKGROUND

2.1 Routines as Interlinked Habits

Research on routines as interlinked habits views routines as sequential patterns of action that are based in the interconnected, reciprocally-triggering habits of routine participants. The roots of this view are based in earlier efforts to draw connections between organizational routines and individual learning (e.g., Cohen and Bacdayan 1994), drawing primarily on psychological research examining procedural and declarative memory. Procedural memory, which is viewed as central for habits, involves remembering how to perform actions; this form of memory tends to persist, has little accessibility to language and conscious thought, and has limited tolerance for novel conditions. Because it is not easily accessible to conscious thought, procedural memory provides an important mechanism that supports individuals' dispositions to act in similar ways in response to similar circumstances without going through a deliberative process. By contrast, declarative memory centers on facts and concepts, and it tends to be more subject to decay, more accessible for conscious thought (e.g., deliberating among alternative courses of action), and more tolerant of novel conditions (Cohen 1991).

The idea of routines as interlinked habits suggests that routines emerge through a process of gradual learning by participants in the routine, and become stored in procedural memory (Cohen et al. 1996). In experimental research, Cohen and Bacdayan (1994) found evidence consistent with the idea of routines being stored as procedural memory; specifically, the researchers found that as pairs of individuals formed routines for playing a card game, the routines were not impacted by the introduction of time delays (i.e., decay), but were impaired when novel conditions were introduced. In this manner, a routine can be viewed as a concatenation of individual habits, each stored in procedural memory (Cohen et al. 1996), with the corresponding actions of participants primed by and priming the actions of others. This is similar to the notion of "habit meshing", which Weick (1969: 58) described as how "each person's habits are part of the environment of others" within organizations.

Thus, as the routine forms, the initially distinct action dispositions of individuals tend to coalesce into a cohesive whole, such that the routine in aggregate represents a collective disposition (Hodgson 2003; Knudsen 2008), which can result in the performance of "seemingly automated" sequences of actions (Narduzzo et al. 2000). In related research, Dionysiou and Tsoukas (2013) argue that the formation and interlinking of these action dispositions coincide with the development of shared schemata among routine participants; specifically, their work emphasizes that stability in routines reflects the development of shared schemata that guide meaningful interactions among participants, and action dispositions stored in procedural memory that contribute to participant responses in more automatic and unreflective ways.

While the idea of routines as interlinked habits may suggest a rather automatic, machine-like view of routines, a key issue is the way in which the underlying habits are conceptualized. Some scholars (e.g., Knudsen 2008) have viewed habit as automatically triggered by contextual cues, consistent with contemporary research in psychology (Wood and Neal 2007), while others (e.g., Cohen 2007) have drawn upon a broader conceptualization of habit as proposed by Dewey (1922), which emphasizes that habits can be mindless and automatic in the extreme, but they can

also exhibit dynamic and mindful qualities. What is habit, then, and how is it viewed in different research traditions in psychology and sociology?

2.2 Habits

Although the term "habit" has been used in different ways across different disciplines, Camic (1986: 1044) proposes that habit has a common core meaning: "a more or less self-actuating disposition or tendency to engage in a previously adopted or acquired form of action." Around this common core, scholars of habit vary in their views, particularly regarding whether the form of action is simple, circumscribed, and automatic versus generalized, complex, and deliberate (Camic 1986).

While consideration of habit was common in early work in psychology and sociology, the evolution of the disciplines led to psychologists focusing largely on the automatic notion of habit, and the virtual disappearance of habit from sociological discourse (Camic 1986).[i] More recently, though, sociology has seen a reemergence of scholarly attention in this area, focusing largely on the notion of habitus and general/complex forms of behavior (Bourdieu 1990).

In this section, we provide a brief review of three related areas of research. First, we consider the dominant view in psychology on habit, where habits are defined as response dispositions that are automatically triggered by cues in the performance context (Wood and Neal 2007). Second, we examine recent work in sociology on habitus, which arose in opposition to the traditional view of habit in psychology[ii] (Bourdieu 1990). Last, we consider earlier work in psychology by Dewey (1922), and related phenomenological work by Merleau-Ponty (1962), that has received less attention and argues for a broader conceptualization of habit.

2.2.1 Dominant View in Psychology on Habit

Psychologists have long relied on the concept of habit for understanding our daily lives. William James (1939) argued that individuals are "mere bundles of habits", and suggested that 99%, perhaps 99.9%, of daily activity is habitual.

Concept of habit. In psychology, much of the attention directed to habits has focused on fairly simple and automatic actions. Early roots of this line of thought can be found in the work of James (1890), who argued that with habit formation comes diminishment in the conscious attention with which individuals perform their activities, and further spoke of habits in terms of "automatic agency" (1890: 31). In more recent work in psychology, scholars have defined habits as response dispositions that are automatically triggered by cues in the performance context. In this sense, habits represent learned associations between stable contextual features and responses (Neal, Wood, and Quinn 2006). In diary studies, Wood, Quinn, and Kashy (2002) classified habits as behaviors that participants report performing "just about every day" and "usually in the same location" (Wood et al. 2002: 1285).

Habit development and performance. According to this view, habits develop gradually as individuals do the same things in the same context. In this process, associations are formed in memory between the actions/responses and the stable features of the context in which they are

performed (Wood and Neal 2009). As these associations in memory form, there is greater integration of actions within sequences, resulting in the cueing and implementation of larger units of behavior that require little conscious control to proceed to completion (Neal et al. 2006). While the pursuit of prior goals may have led individuals to perform activities similarly under similar conditions, once habits are established, they are automatically triggered by cues in the performance context. In this work, scholars highlight that the physical location where responses are performed provides the cues that trigger many everyday behaviors (Wood and Neal 2009). Research by Wood et al. (2005) found that a number of everyday habits can transfer/persist across settings -- specifically for students transferring from one university to another -- when aspects of performance context are similar in both settings.

While habits have a persistent memory trace in general, scholars in psychology have also considered how cognitive resources may strengthen or weaken the likelihood of engaging in such behaviors. For example, when individuals are distracted, they have less working memory available to generate alternative courses of action, and as such, they are more likely to act habitually (Wood and Neal 2009). Recent work has also focused on the role of self-control/willpower resources, which Wood and Neal (2009: 583) describe as a "domain-general resource that functions like a muscle in that it is temporarily depleted with use and regenerates with rest." In related diary studies, scholars have found that the most effective strategy for inhibiting habitual responses is one of vigilant resistance using self-control/willpower resources (Quinn et al. 2010); however, when such resources are low, individuals are typically unable to inhibit the habitual response or choose other courses of action (Neal, Wood, and Drolet 2013). Scholars also suggest that efforts to change habitual behaviors are more likely to be effective when they are based in or coincide with interventions that disrupt the environmental cues that would otherwise automatically trigger the habit (Verplanken and Wood 2006).

2.2.2 Reemergent View in Sociology on Habitus

Concept of habitus. While the field of sociology ceded the study of habit to psychology in the early twentieth century, prominent contemporary scholars in sociology like Mauss (1973) and Bourdieu (1990) have refocused attention in this area, particularly on the notion of habitus. For Mauss and Bourdieu, habitus differs from habit, in that habitus focuses on intelligent dispositions and practical understanding while habit refers to mechanical, stimulus-response forms of behavior (Crossley 2013a).

While the concept of habitus has evolved over time (Crossley 2013b), in general, it refers to a system of stable dispositions, which are based in past experiences. Habitus are generative systems with the capacity to produce an infinite number of practices, but the range of such practices is limited in diversity by the corresponding embodied schemata that guide perception, appreciation, and action (Bourdieu 1990; Bourdieu and Wacquant 1992). A habitus can be viewed as an acquired ability to do certain sorts of things, i.e., a form of competence, and represents a prereflective and embodied mastery of certain types of situations. Using the analogy of sport, Bourdieu (1990: 66) sees habitus as the "feel for the game" that enables players to act in intelligent ways even when the speed of the game inhibits their ability to think reflectively about their next move (Crossley 2013b). In this way, habitus "captures the skilled activity of the expert player rather than the conditioned response of the lab rat" (Crossley 2013a: 139).

Habitus development and performance. According to Bourdieu (1990: 53), habitus are "structured structures predisposed to function as structuring structures." In this sense, the habitus is produced by a particular class of conditions, and the habitus as a system of dispositions serves as the basis for perceiving, appreciating, and acting. The primary structuring influences on habitus are based in social class and historical era (Crossley 2013b). Given that individuals of the same class or era tend to be exposed to the same conditions, they tend to develop the same habitus (Bourdieu 1990). As a result, habitus "captures the way in which the individual is shaped by their own history which, in turn, is shaped by the wider historical process to which they belong," thereby implying a "situated form of agency which emerges from and draws upon a collective history" (Crossley 2013b: 295).

Moreover, habitus also develops and redevelops through experiences that reinforce and modify its structures (Bourdieu and Wacquant 1992). Early experiences are particularly influential, as the schemata emerging from them form the basis through which new information is selected (Bourdieu 1990). As experiences accumulate, there tends to be a relative closing of the open system of dispositions constituting the habitus (Bourdieu and Wacquant 1992). In this sense, the habitus is "a present past that tends to perpetuate itself into the future by reactivation in similarly structured practices" (Bourdieu 1990: 54).

2.2.3 Reformed View of Habit

In the work of Mauss (1973) and Bourdieu (1990), dissatisfaction with the more rigid notion of habit developed in psychology led to their use of habitus as a more complex, dynamic and generative concept. Other scholars like Dewey (1922) in psychology and Merleau-Ponty (1962) in phenomenology had similar concerns with the narrow and rigid view of habit, but rather than reject the concept, they chose to rehabilitate and extend it (Crossley 2013a). Recent work in the organizational sciences by Cohen (2007) has also adopted this broader conceptualization of habit.

Concept of habit. While the dominant view in psychology conceptualizes habit with respect to automaticity (Wood and Neal 2007), early work by Dewey (1922) advocated for a broader conceptualization. At one extreme of a continuum, Dewey understood habit as consistent with the dominant view in psychology -- that is, habit as automatically triggered by contextual cues without thought or feeling -- which he described as "routine habit". But at the other extreme, Dewey (1922) viewed habit as more flexible and lively, which he described as intelligent or artistic habit. In similar ways, phenomenologist Merleau-Ponty (1962) saw habit as an acquired ability to respond to situations of a particular form with certain ways of acting. This end of the continuum compares favorably with the notion of habitus used more recently in sociology (Bourdieu 1990; Mauss 1973).

Further, while the dominant view in psychology suggests that habits based in automaticity are pervasive (James 1890; Wood et al. 2002), Dewey suggested that this form of habit represents a pathological extreme that is not often reached. Specifically, he argued that all habit-forming activity begins down a path toward thoughtless/automated action. However, "nature which beckons us to this path of least resistance also puts obstacles in the way of our

complete acceptance of its invitation," and through these obstacles, "a signal flag of distress recalls consciousness to the task of carrying on" (1922: 173).

Habit development and performance. Dewey (1922) emphasized that habit is a disposition to particular ways of action that is acquired through past experience. According to Dewey, though, habits could develop in different ways depending on their type; for example, "routine habits" would develop and be limited by repetition of past acts in past conditions, whereas a flexible habit would grow more varied and adaptable through experience. In similar ways, Merleau-Ponty (1962) viewed the process of habit formation as one in which an individual acquires the ability to respond with a certain type of action to situations that bear similar characteristics but are in no way identical; thus, there is flexibility of habit in that individuals are acquiring an ability for doing something, based on learning a relation of meaning between situational properties and responses. As an example, Merleau-Ponty (1962: 142) described "forming the habit of dancing" as "discovering, by analysis, the formula of the movement in question, and then reconstructing it on the basis of the ideal outline by the use of previously acquired movements, those of walking and running." Moreover, this work argues that habits form on the basis of ongoing interactions between the actor, other actors, and the broader environment, and re-form based on the continuing course of these interactions which include ongoing disturbances (Crossley 2013a).

In general, Dewey (1922) viewed habits as repertoires of potential behavior that can be triggered by an appropriate stimulus or context, and that a habit exhibits unexpected potentialities when performed in a different context from the one in which it was established. From this view, habit is a more generative notion in that habits can be drawn upon, adapted, and reorganized for different purposes in different conditions. In this way, Cohen (2007; 2012) saw habits as flexible and as resources for improvising, although he also acknowledged the difficulty in efforts to reshape habit through conscious intervention.

2.2.4 Summary

With increasing attention focused on strengthening the microfoundations of routines (Felin et al. 2012), habit has been put forward as a central component (Cohen 2007; Winter 2013). The potential of habit to fulfill this role is, however, constrained by extant views of the concept among routines scholars. While many see habit similarly (i.e., based in automaticity), our review shows that this is a restrictive perspective. We observe that the reformed view of habit advanced by scholars like Merleau-Ponty and Dewey (on which Cohen 2007 builds), and the notion of habitus as developed by Mauss and Bourdieu, have substantial overlap, with both characterizing habit more broadly than, and in many ways different from, the dominant view of habit as understood in psychology. These "alternative" views of habit see it as the ability to act competently in a prereflective but intentional and intelligent way, which contrasts markedly with the dominant view of habit in psychology which sees it as non-reflective, automatic response to known stimuli, which can be prone to misfire and only overcome through considerable willpower. The commonalities and divergences in the treatment of habit highlighted here point to a need for developing a more integrative and coherent understanding of habit. In the following section we explore the relationships among contextual features, deliberation, and mindfulness within our habit typology.

3. A TYPOLOGY OF HABIT

At its core, habit represents an acquired tendency to engage in an activity in particular ways (Camic 1986). But as evident from the related scholarship in psychology and sociology, there are different perspectives on habit that are based in differences in the extent of automaticity by the individual performing the activity, and the variability of the conditions in which he/she performs it. In this section, we develop a typology of habit that explores and accounts for these differences (Figure). We then use this typology as a basis to discuss the relationships between habit and mindfulness.

*** Insert Figure Here ***

In our typology, we use activity to indicate the larger task that is being performed, such that its performance is reflected in a sequence of underlying actions. An example of an activity would be driving from home to work. This activity is composed by the actions of entering the car, starting its engine, and so on.[iii] Our typology focuses on habits that can be viewed as established, and does not consider the performance of an activity prior to habit formation.

The first dimension, variability in performance conditions, refers to the extent to which features of the context in which the activity is performed are different across its enactments. Scholars in psychology have argued that variability in performance conditions has important implications for habit, as habit formation involves the development of associations in memory between actions and stable contextual features (Verplanken and Wood 2006). At a more aggregate level, organizational scholars suggest stability in the operating environment of organizations has important implications for routinization of activities (March and Simon 1958). Similarly, researchers in sociology have argued that the stability of performance conditions plays a key role in the formation of habitus (Bourdieu 1990; Crossley 2013a). Scholars from this tradition, as well as those advocating for a reformed view of habit, have also underscored how variability in conditions can produce varied performances of the same habit (Bourdieu 1990; Dewey 1922).

Our second dimension captures the extent to which deliberation enters into habitual behavior, either in supporting or disrupting it. The term deliberation is used widely in the debate on routines, but it is rarely explicitly defined. According to *Merriam Webster*, deliberation refers to "careful thought or discussion done in order to make a decision." Dewey (1922: 190), on which much of the current attempts to revisit the notion of habit in routines are based, defines deliberation as "a dramatic rehearsal (in imagination) of various competing possible lines of action." Similarly, Winter (2013) highlights that deliberation aligns closely with System/Type 2 processes in dual processing accounts of individual behavior. System/Type 2 processes tend to be relatively slow, conscious, abstract, rule-based, and connected with consequential decision-making, while System/Type 1 processes tend to be relatively fast, automatic, non-conscious, associative, and involved in experience-based decision-making (Evans 2007).

In our typology, the automatic habit, which often involves fairly simple activities, is habit as understood in modern psychology (Wood and Neal 2007). Automatic habit is typically developed and performed in stable conditions, and for the individual actor, there is little

deliberation within the performance of the activity. The latter is emphasized in neuroscience research (Jog et al. 1999) showing how, when a particular activity is performed, the underlying actions tend to become "chunked" together, with recordings of neuronal activity suggesting limited deliberation taking place within the sequence of actions (with greater signs of engagement at the beginning and end of the sequence). This corresponds with one extreme of the habit continuum from the reformed view of habit, which Cohen (2007: 780) describes as "dead" habit. Dewey (1922: 172-173) suggested that for an individual, habit at this extreme is "a ditch out of which he cannot get, whose sides enclose him, directing his course so thoroughly that he no longer thinks of his path or his destination... stimulus and response are mechanically linked together in an unbroken chain." This corresponds to the idea of habit as rejected by Bourdieu (1990), in favor of habitus.

The contested habit reflects recent scholarly attention by psychologists (Neal et al. 2013). With contested habit, the focus is also on activities performed in stable conditions, but the process involves a greater level of deliberation by the individual. In particular, the contested habit is based on recent research that examines the juxtaposition of habit and willpower, examining the role of self-control/willpower in inhibiting the performance of particular patterns of action (Quinn et al. 2010). In contrast to traditional habit, with contested habit, high levels of deliberation work to inhibit a response, or to "will apart" an otherwise chunked sequence of actions. Bourdieu (1990: 108) also notes that "[habitus] may be superseded in certain circumstances … by other principles, such as rational and conscious computation." This also reflects the juxtaposition of will and "dead" habit described by Dewey (1922), although habit can also be changed through prereflective improvisation.

For activities that are performed in varying/dynamic conditions, and involve relatively low deliberation, we enter the realm of skillful habit.[iv] This refers, for instance, to the "feel for the game" of a footballer (Bourdieu 1990). Here the individual is able to adapt her behavior to the changing conditions in which the activity is carried out (e.g., the spatial distribution and movement of players, the ball in motion) in a way that is largely prereflective, but still purposive and displaying intelligence and understanding of the situation (Crossley 2013a).

Finally, when the performance conditions are varying and deliberation is high, habit can be viewed as infused with deliberation, i.e., infused habit. This recognizes the unexpected potentialities of "a flexible, sensitive habit" (Dewey 1922: 72) that can generate different action sequences based on different conditions (Bourdieu and Wacquant 1992), and represents an ability that can be called upon when facing "new emergencies" (Dewey 1922: 66). While skillful habit represents a prereflective and almost instinctive adaptation of behavior given encountered conditions, infused habit involves greater deliberation and engagement in the behavior. This quadrant captures "the infusion of thought [into habit] that Dewey spoke of, which solves surmountable problems around the edges of existing skills and routines, thereby enhancing the scope and adaptability of existing habits" (Winter 2013: 134).

3.1 Habit and Mindfulness

The typology developed above offers insights for the relationship between habitual behavior and mindfulness, which in turn, has implications for our understanding of the linkage between routinization and mindfulness. We begin by concentrating on the individual level of analysis, consistent with our focus in this section on the relationships between habit and individual behavior. In reviewing psychological research on mindfulness, Dane (2011) argues that most studies share a common core understanding of mindfulness as the self-regulation of attention so that it is (1) focused on immediate experience, both internal to the person (e.g., emotional states) and external (i.e., the environment) and (2) has wide breadth. Dane (2011) further argues that this differentiates mindfulness from other states of attention, such as absorption (when attention is narrowly concentrated on the task at hand), counterfactual thinking and prospection (when attention is concentrated on the past or on the future), and mind wandering (when attention is broad and not directed to the present). Some approaches, notably that of Langer (1989), see mindfulness as involving cognitive differentiation through the creation or refinement of distinctions and categories.[v]

When characterized as self-regulated, wide-breadth attention to one's experience (Dane 2011; Glomb et al. 2011), mindfulness directs attention to a wider range of details in the context and how one is dealing with it, and in this way enriches the information that is selected into the deliberation process. For instance, Langer (1989: 153) argues that "mindfulness is a choice of contexts. The mindlessness-mindfulness distinction is concerned with how we create information or assign meaning to to-be-processed information." However, mindfulness, as a state of attention, does not necessarily imply deliberation. Heightened attention increases the input that we process, but that processing might not take place through the language-based, cognitive activities that we usually associate with deliberation. A skilled football player, to go back to Bourdieu's example, is certainly mindful of her surroundings as she adapts her actions to the speed of the ball, the disposition of other players, and her own physical situation, but we define her as skillful because in many circumstances she knows what to do without deliberating about it – as a novice and less skillful player would need to do.

Our typology suggests that all types of habit, with the exclusion of automatic habit, are mindful because they require attention and adaptation to the context. Skillful habit, as illustrated by the performance of a skilled football player, requires mindfulness primarily with an external focus. Contested habit requires mindfulness primarily with an internal focus, on the operation of the body or mind, while infused habit requires focus on both internal and external dimensions, as the actor consciously attempts to adapt habit in the face of variations in context.

These ideas have implications for understanding the link between routinization and mindfulness. While some authors emphasize trade-offs between routinization and mindfulness (Weick and Sutcliffe 2006), others argue that they sustain each other at individual (Laureiro-Martinez 2014) and organizational levels (Levinthal and Rerup 2006; Rerup and Levinthal 2014). From the perspective of our typology, whether or not routinization at an organizational level sustains mindfulness can depend on the type of habit that predominates for participants. When automatic habit dominates, routines are mindlessly executed on the basis of a few salient cues in the environment. An example of this may be the case, discussed in Cohen and Bacdayan

(1994), of Soviet troops arriving in Cuba secretly and in civilian clothes, only to form into ranks and march away in formation. When other types of habits dominate, however, the performance of routines can be mindful. This appears to be the case, for instance, in the processes underlying both local/lower-level and global/higher-level variations in routines for new product development at Alessi (Salvato 2009). In that case, mindful employees reacted to local problems by generating some variation, and mindful top managers picked up on successful variations and institutionalized them. In our view, the idea of "infused habit" might help to explain the micro-foundations of routine evolution in similar cases, including how bottom-up (operational) and top-down (strategic) processes are linked (Vogus and Sutcliffe 2012) in ways that prevent organizational adaptation from being driven by sudden and dramatic "wake up calls" of serious crises (Rerup and Levinthal 2014).

4. DISCUSSION

In this study, we consider habit as a foundational concept for routines theory, building on the recent attention directed to habit by routines scholars (Cohen 2012; Winter 2013). While habit has traditionally been viewed through the lens of psychology, focusing on the automatic triggering of actions in stable conditions, our study offers a broader and more integrative look at the concept. Specifically, we develop a typology of habit, which is rooted in work on habit and habitus from psychology and sociology, and we explore the role of mindfulness in the different forms of habit. We believe that this perspective offers considerable potential to further understanding of the microlevel foundations of routines theory. This integrative view of habit offers important implications that extend understanding of two core perspectives in the routines literature: the capabilities perspective and the practice perspective (Parmigiani and Howard-Grenville 2011).

4.1 Implications for Research on the Capabilities Perspective of Routines

The capabilities perspective typically examines routines as whole entities, and focuses on their role as building blocks of organizational capabilities (Parmigiani and Howard-Grenville 2011). Our study offers insight for the capabilities perspective in two primary areas: the role of individuals, and the role of context.

4.1.1 The Role of Individuals

Capabilities-based scholars have not historically focused closely on how individuals shape routine enactment, which in part has spurred recent calls for greater foundational understanding of routines (Felin et al. 2012; Salvato and Rerup 2011). Yet this research does argue that routine participants are faced with competing tensions, often viewed as a trade-off, involving deliberation -- its absence enables fluid performance of habits of limited scope in familiar conditions, while its presence broadens the scope of action across a wider range of conditions, but typically does so at the expense of disruptions in behavior (Nelson and Winter 1982; Winter 2013).[vi] While viewing such tensions as a trade-off between fluidity/efficiency and adaptability/flexibility focuses on habit and deliberation as separate concepts, scholars have called for greater attention to understanding the interplay between habit and deliberation, and the corresponding implications for routines and capabilities (Winter 2013). And there have been

parallel calls to provide a clearer understanding of the relationships between mindful and "less-mindful" behavior in relation to routines (Levinthal and Rerup 2006).

Our typology of habit, and consideration of mindfulness within it, helps us to better understand how the type of habit influences the balance among these competing tensions. First, we highlight that two habit types -- automatic and contested -- are quite consistent with how capabilities-based scholars tend to view the tension as a deliberation trade-off. For automatic habit, there is little, if any, deliberation among routine participants, which enables fluid performance of habits in stable conditions. With contested habit, there is deliberation on the part of participants with mindfulness directed internally, with the typical objective to inhibit an undesired performance of habit. Second, we highlight that skillful habit and infused habit -- both present in varying conditions -- are less consistent with extant views. For skillful habit, there is less of a trade-off present between fluidity/efficiency and adaptability/flexibility, as there is little deliberation involved for routine participants, but by being mindful of external conditions, they are able to attain both fluid and adaptive performance of habit. In the case of infused habit, we argue that there is not separation between habit and deliberation, as deliberation is actively enrolled in the performance of infused habit (with mindfulness directed both internally and externally).

These insights have important implications for research into the micro-foundations of routines and capabilities because they suggest that scholars need to look beyond a monolithic view of habit, and take into account multiple forms of habit that are present in different conditions (i.e., stable versus varying) and involve deliberation and mindfulness in different degrees and ways. Future research should include efforts to examine the performance implications of routines depending on which habits prevail (e.g., routines built primarily on automatic habit vs. infused habit), as well as the processes through which multiple types of habits intermesh in routines. Moreover, our study encourages future research to move beyond a bipolar view of the individual actor, moving like a pendulum between habit and deliberation, and instead to focus more closely on the varied relationships between habit and deliberation. As one example, deliberation itself may be a habit, as in the view of Dewey (1922), particularly when it is recognized in the "learnt" way of professionals reasoning about their task. In addition, work on mindfulness has begun to shed light on the multiple ways in which automatic and mindful behavior support and co-constitute each other at both individual and organizational levels (Laureiro-Martinez 2014; Levinthal and Rerup 2006). As discussed earlier, our typology of habit can help to further unpack these processes.

4.1.2 The Context of Routines

In the routines literature, the idea that routines are context-dependent is a fundamental one (Cohen et al. 1996). Consistent with this idea, scholars working from the capabilities perspective have tended to view the material context as external structures that trigger and channel the actions of participants performing a routine (Becker 2004). At an individual level, this aligns with the "automatic habit" tradition of research arguing that stimuli from the environment automatically trigger the performance of habits (Wood and Neal 2007). This connects with the idea that the affordances of objects (i.e., the possibility for action that an object offers) can be processed in automatic ways (Cohen 2012; Gibson 1979). But our study also

11

points to other ways in which artifacts and context come into play in relatively automatic ways for individuals performing routines. For example, Merleau-Ponty's (1962) discussion of how a blind person uses a stick for perceiving suggests that some artifacts are in fact mediators of behavior, in the sense that they influence the nature of behavior rather than simply "trigger" it. This suggests that context is part of habit in a generative way, and that individuals can resourcefully use artifacts while performing habits. Building on work on the role of materiality in organizations (e.g., Cacciatori 2012; Leonardi, Nardi, and Kallinikos 2012), and on research that examines how some artifacts (e.g., procedures) can stimulate and/or suppress deliberation, mindfulness and ultimately agency (Adler and Borys 1996), offers promise for advancing understanding of how different types of artifactual conditions affect the emergence and flexibility of routines.

Moreover, context dependence is based on the idea that routine effectiveness depends on the alignment between routines and their surrounding conditions (Nelson and Winter 1982). But in recent work focusing on routine replication, capabilities-based scholars have argued that effectiveness depends less on fit with local conditions, and more on maintaining the internal coherence of the routine. Specifically, this research has found that as organizations seek to transfer routines to new locations, their performance improves with exact replication, as opposed to adapting the routine to fit the context (Szulanski and Jensen 2006). This work raises important questions regarding the value of replication versus adaptation for organizational routines, and whether routines may be less dependent on context than previously thought.

Contributing to this debate, our study suggests that the value from exact replication versus contextual adaptation may depend upon the habits of routine participants. For example, when routines are based largely in automatic habits, organizations may benefit from pursuing a strategy of exact replication because the internal coherence of a routine is more salient with automatic habits at its foundation (i.e., greater chunking of behavior). By contrast, when the underlying habits for a routine are infused ones, organizations may benefit from greater adaptation to the local environment because there are fewer problems associated with disturbing the internal coherence of the routine. Future research can advance this debate through greater attention to how the habits of routine participants are (and are not) dependent upon different aspects of context; in these efforts, scholars may benefit from drawing upon psychological research on affordance (Gibson 1979) and contextual influences on habit (Wood et al. 2005).

In addition, findings from the research on routine replication suggest that context is "layered." Maintaining internal coherence of routines requires replicating exactly the artifactual and organizational arrangements of a routine; that is, it focuses on the immediate context for participant actions. This immediate context might or might not fit with the larger context as reflected in the wider organizational and market conditions, such as cultural norms. Our typology suggests that different forms of habit may be predominant at different contextual levels. While automatic habit may be predominant in relation to the immediate context in routines, "outer" layers of context seem to call more upon habit as practical knowledge (i.e., skillful and infused habit) to perform in particular classes of situation and cultural context. A "layered" view of context, together with the typology of habit that we propose, may help future research to explore how routines nest into other structures of the organization (Howard-Grenville 2005).

4.2 Implications for Research on the Practice Perspective of Routines

The practice perspective focuses on the internal structure of routines. From this perspective, routines are viewed as comprising ostensive aspects (i.e., the abstract pattern of actions) and performative aspects (i.e., the enactment of the pattern of actions), and as effortful and ongoing accomplishments (Feldman and Pentland 2003). Our study also offers insight for scholars working from the practice perspective in the areas of the role of individuals and context.

4.2.1 The Role of Individuals

Routines scholars working from the practice perspective have emphasized the agency of routine participants, focusing on specific actions taken by specific individuals at specific times and in specific places (Parmigiani and Howard-Grenville 2011). To this point, practice-based routines researchers have given relatively little attention to the potential role of habit in the micro-foundations of routines, which is not surprising given the level of attention directed to the concept of automatic habit in psychology (Wood and Neal 2009), and its general inconsistency with the idea of routines as effortful accomplishments. In fact, the emphasis on agency -- and the view of routines as practices that must be accomplished -- is put forward in contrast to the idea that routines are simply based in the mindless, automatic habits of individuals. However, in work exploring the temporal orientation of actors, agency scholars have argued that when actors are primarily oriented to the past, there is a habitual aspect of agency (Emirbayer and Mische 1998). Drawing on this research, Howard-Grenville (2005) argues that when participants are oriented to the past, there is little flexibility and change in routines.

While prior work has tended to equate the habitual aspect of agency with past temporal orientation, our typology suggests that different forms of habit may involve different forms of temporal orientation. Consistent with prior work, automatic habit aligns with past temporal orientation, and we would expect little flexibility and change in routines based in such habits. However, if routines are based in skillful habit, we would expect greater orientation to the present (i.e., adapting to the circumstances at hand), and greater flexibility in the routine. If routines involve contested habit, we would expect that participants are simultaneously oriented to the past and present, with present intentions and resources (i.e., willpower) seeking to inhibit tendencies for past iterations, and with the flexibility and change in routines dependent upon the balance among competing pressures. For routines based in infused habit, participants may be simultaneously orientated to the past, present, and future; for example, actors may draw on patterns of action established in the past as resources that can be modified and/or recombined to enable more effective functioning in the present or future; in these instances, we would expect greater flexibility and change in routines. Future research into the habitual aspect of agency -- including the different forms that habit may take, and the different temporal orientations that may be at play -- offers considerable potential for advancing understanding of the practice perspective of routines.

In addition, practice approaches to routines generally consider agency and structure to be co-constituted (Feldman and Pentland 2003). However, practice-based studies of routines have tended to give primacy to agency and have provided a less developed account of the role of structure in the dynamics of routines – partly as a reaction to a view of routines as rigid and

13

automatic. Unlike habit in the dominant psychology tradition, the work on habitus and related research on the reformed view of habit is more social in nature. Mauss and Bourdieu, for instance, both underscore that habitus is formed in and shaped by the social groups in which individuals live, forming a key mechanism through which social structure influences individual agency, which in turn reproduces structure. Scholars advocating the reformed view of habit, like Merleau-Ponty and Dewey, also recognize that habit emerges in interaction with others, and view individuals' capacity of perceiving, forming objectives and acting (in short, agency) as constituted by habit (Crossley 2013a; Dewey 1922). Therefore, habit offers the opportunity to explore the dispositional aspect of human agency (Crossley 2013a) and appears as a promising avenue to further explore the dynamics of structure and agency, particularly in terms of investigating how various types of structures contribute to routine dynamics – an issue that has only recently begun to be addressed explicitly (Howard-Grenville 2005). Our typology of habit, by differentiating between habits that are more or less rigid, and have reinforcing or contrasting relationships with deliberation and mindfulness, might offer a way to unpack the situations in which the duality of structure and agency is weighed more toward "structure" and replication, or "agency" and variation.

4.2.2 The Context of Routines

Our study also responds to a call for extending understanding of the practice perspective of routines through greater attention to how context shapes the dynamics of organizational routines (Parmigiani and Howard-Grenville 2011). In extant research, scholars have emphasized how routines are enacted simultaneously with other elements of the organizational context, which can inhibit flexibility and change in routines. For example, Howard-Grenville (2005) argued that there is less flexibility and change in routines when they are strongly embedded in structures of the organization, i.e., technological, coordination, and cultural.

While extant work has focused on how relatively stable features of the organizational context tend to constrain the dynamics of routines, our study offers some perhaps surprising insight into how the dynamics and variability of context can both inhibit and promote adaptability and change in routines through habit formation. We argue that stable contextual conditions tend to give rise to automatic and contested habits for individuals, and when organizational routines are based in those types of habits, we expect limited flexibility and change in the routines; moreover, for such routines, accomplishing change will likely require the investment of considerable willpower resources. By contrast, we argue that more variable conditions enable the formation of skillful and infused habits, which we expect to promote adaptability and change in routines. In order to better understand how context affects the dynamics of routines, we encourage future research to explore more closely how context affects stability and variability in the habits of participants.

5. CONCLUSION

In this chapter, we have developed a typology of habit that offers a more integrative look at the concept, drawing upon the different ways habit has been conceptualized in psychology and sociology. We also seek to clarify the relationships between habit, deliberation, and mindfulness, arguing that habit does not necessarily always preclude deliberation and, especially, mindfulness.

As such, habit might offer a suitable micro-foundation for approaches that see organizational routines as compatible with mindful organizing. Our typology of habit offers productive directions for further research in both the practice and capabilities traditions. By showing areas of overlap and contrast between different approaches, and by highlighting related opportunities for future research for both capabilities- and practice-based scholars, we hope that habit might in the future become a "trading zone" (Kellogg, Orlikowski, and Yates 2006: 22) in which productive dialogue between the capabilities and practice traditions can be established, while continuing to benefit from the richness afforded by their differences.

REFERENCES

Adler, P.S., Borys, B. (1996). 'Two types of bureaucracy: Enabling and coercive'. *Administrative Science Quarterly*, 41/1: 61-89.

Becker, M.C. (2004). 'Organizational routines: A review of the literature'. *Industrial and Corporate Change*, 13/4: 643-677.

Bourdieu, P. (1990). *The Logic of Practice*. Stanford, CA: Stanford University Press.

Bourdieu, P., Wacquant, L.J.D. (1992). *An Invitation to Reflexive Sociology*. Chicago: University of Chicago Press.

Cacciatori, E. (2012). 'Resolving conflict in problem-solving: Systems of artifacts in the development of new routines'. *Journal of Management Studies,* 49/8: 1559-1585.

Camic, C. (1986). 'The matter of habit'. *American Journal of Sociology*, 91: 1039-1087.

Cohen, M.D. (1991). 'Individual learning and organizational routine'. *Organization Science*, 2/1: 135-139.

Cohen, M.D. (2007). 'Reading Dewey: Reflections on the study of routine'. *Organization Studies*, 28/5: 773-786.

Cohen, M.D. (2012). 'Perceiving and remembering routine action: Fundamental micro-level origins'. *Journal of Management Studies*, 49/8: 1383-1388.

Cohen, M.D, Bacdayan, P. (1994). 'Organizational routines are stored as procedural memory: Evidence from a laboratory study'. *Organization Science*, 5/4: 554-568.

Cohen, M.D., Burkhart, R., Dosi, G., Egidi, M., Marengo, L., Warglien, M., Winter, S. (1996). 'Routines and other recurring action patterns of organizations: Contemporary research issues'. *Industrial and Corporate Change*, 5/3: 653-698.

Cohen, M.D., Levinthal, D.A., Warglien, M. (2014). 'Collective performance: Modeling the interaction of habit-based actions'. *Industrial and Corporate Change*, 23/2: 329-360.

Crossley, N. (2013a). 'Habit and habitus'. *Body & Society*, 19: 136-161.

Crossley, N. (2013b). 'Pierre Bourdieu's *Habitus.'* In T. Sparrow and A. Hutchinson (eds.), *A History of Habit from Aristotle to Bourdieu*. Lantham, MD: Lexington Books, 291-308.

Dane, E. (2011). 'Paying attention to mindfulness and its effects on task performance in the workplace'. *Journal of Management*, 37/4: 997-1018.

Dewey, J. (2002/1922). *Human Nature and Conduct*. Amherst, NY: Prometheus Books.

Dionysiou, D.D., Tsoukas, H. (2013). 'Understanding the (re)creation of routines from within: A symbolic interactionalist perspective'. *Academy of Management Review*, 38: 181-205.

Emirbayer, M., Mische, A. (1998). 'What is agency?'. *American Journal of Sociology*, 103/4: 962-1023.

Evans, J.B.T. (2007). 'Dual-processing accounts of reasoning, judgment, and social cognition'. *Annual Review of Psychology*, 59: 255-278.

Feldman, M.S., Pentland, B.T. (2003). 'Reconceptualizing organizational routines as a source of flexibility and change'. *Administrative Science Quarterly*, 48: 94-118.

Felin, T., Foss, N.J., Heimeriks, K.H., Madsen, T.L. (2012). 'Microfoundations of routines and capabilities: Individuals, processes, and structure'. *Journal of Management Studies*, 49/8: 1351-1374.

Gibson, J.J. (1979). *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.

Glomb, T.M., Duffy, M.K., Bono, J.E., Yang, T. (2011). 'Mindfulness at work.' In A. Joshi, H. Liao, and J.J. Martocchio (eds.), *Research in Personnel and Human Resources Management*, Bingley, UK: Emerald Group Publishing Limited, vol. 30: 115-157.

Hodgson, G.M. (2003). 'The mystery of the routine: The Darwinian destiny of An Evolutionary Theory of Economic Change'. *Revue economique*, 54/2: 355-384.

Howard-Grenville, J.A. (2005). 'The persistence of flexible organizational routines: The role of agency and organizational context'. *Organization Science*, 16: 618-636.

James, W. (1890/1914). *Habit*. New York: Henry Holt and Company.

James, W. (1939). *Talks to Teachers on Psychology*. New York: H. Holt and Company.

Jog, M., Kubota, Y., Connolly, C., Hillegaart, V., Graybiel A. (1999). 'Building neural representations of habits'. *Science*, 286: 1745-1749.

Kellogg, K.C., Orlikowski, W.J., Yates, J. (2006). 'Life in the trading zone: Structuring coordination across boundaries in postbureaucratic organizations'. *Organization Science*, 17/1: 22-44.

Knudsen, T. (2008). 'Organizational routines in evolutionary theory.' In M.C. Becker (ed.), *Handbook of Organizational Routines*. Cheltenham: Edward Elgar, 125-151.

Langer, E.J. (1989). 'Minding matters: The consequences of mindlessness-mindfulness.' In L. Berkowitz (ed.), *Advances in Experimental Social Psychology*. San Diego, CA: Academic Press, Inc., 137-173.

Langley, A., Smallman, C., Tsoukas, H., Van de Ven, A.H. (2013). 'Process studies of change in organizations and management: Unveiling temporality, activity, and flow'. *Academy of Management Journal*, 56/1: 1-13.

Laureiro-Martinez, D. (2014). 'Cognitive control capabilities, routinization propensity, and decision-making performance'. *Organization Science*, 25/4: 1111-1133.

Leonardi, P., Nardi B., Kallinikos, J. (2012). *Materiality and Organizing: Social interaction in a technological world*. Oxford: Oxford University Press.

Levinthal, D., Rerup, C. (2006). 'Crossing an apparent chasm: Bridging mindful and less-mindful perspectives on organizational learning'. *Organization Science* 17/4: 502-513.

March, J., Simon, H. (1958). *Organizations*. New York: John Wiley and Sons.

Mauss, M. (1973). 'Techniques of the body'. *Economy and society*, 2/1: 70-88.

Merleau-Ponty, M. (1962). *Phenomenology of Perception*. New York: The Humanities Press.

Narduzzo, A., Rocco, E., Warglien, M. (2000). 'Talking about routines in the field: The emergence of organizational capabilities in a new cellular phone network company', in G. Dosi, R.R. Nelson, S.G. Winter (eds.), *The Nature and Dynamics of Organizational Capabilities*. Oxford: Oxford University Press, 27-50.

Neal, D.T., Wood, W., Quinn, J.M. (2006). 'Habits: A repeat performance'. *Current Directions in Psychological Science*, 15/4: 198-202.

Neal, D.T., Wood, W., Drolet, A. (2013). 'How do people adhere to goals when willpower is low? The profits (and pitfalls) of strong habits'. *Journal of Personality and Social Psychology*, 104: 959-975.

Nelson, R.R., Winter, S.G. (1982). *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.

Parmigiani, A., Howard-Grenville, J. (2011). 'Routines revisited: Exploring the capabilities and practice perspectives'. *Academy of Management Annals*, 5: 413-453.

Quinn, R.E., Pascoe, A., Wood, W., Neal, D.T. (2010). 'Can't control yourself? Monitor those bad habits'. *Personality and Social Psychology Bulletin*, 36/4: 499-511.

Rerup, C., Levinthal D. (2014). 'Situating the concept of organizational mindfulness: The multiple dimensions of organizational learning.' In G. Becke (ed.), *Mindful Change in Times of Permanent Reorganization*, Berlin: Springer, 33-48.

Salvato, C. (2009). 'Capabilities unveiled: The role of ordinary activities in the evolution of product development processes.' *Organization Science,* 20/2: 384-409.

Salvato, C., Rerup, C. (2011). 'Beyond collective entities: Multilevel research on organizational routines and capabilities'. *Journal of Management*, 37: 468-490.

Smith, W.K., Lewis, M.W. (2011). 'Toward a theory of paradox: A dynamic equilibrium model of organizing'. *Academy of Management Review*, 36/2: 381-403.

Szulanski, G., Jensen, R.J. (2006). 'Presumptive adaptation and the effectiveness of knowledge transfer'. *Strategic Management Journal*, 27/10: 937-957.

Turner, S.F. (2014). 'The temporal dimension of routines and their outcomes: Exploring the role of time in the capabilities and practice perspectives.' In A.J. Shipp, Y. Fried (eds.), *Time and Work*, Vol. 2. New York: Psychology Press, 115-145.

Verplanken, B., Wood, W. (2006). 'Interventions to break and create habits'. *Journal of Public Policy & Marketing*, 25/1: 90-103.

Vogus, T., Sutcliffe, K. (2012). 'Organizational mindfulness and mindful organizing: A reconciliation and path forward'. *Academy of Management Learning & Education*, 11/4: 722-735.

Weick, K.E. (1969). *The Social Psychology of Organizing*. Menlo Park, CA: Addison-Wesley.

Weick, K.E., Sutcliffe, K.M. (2006). 'Mindfulness and the quality of organizational attention'. *Organization Science*, 17/4: 514-524.

Weick, K.E., Sutcliffe, K.M., Obstfeld, D. (1999). 'Organizing for high reliability: Processes of collective mindfulness'. *Research in Organizational Behavior*, 21: 81-123.

Winter, S.G. (2013). 'Habit, deliberation, and action: Strengthening the microfoundations of routines and capabilities'. *Academy of Management Perspectives*, 27/2: 120-137.

Wood, W., Neal, D.T. (2007). 'A new look at habits and the habit-goal interface'. *Psychological Review*, 114/4: 843-863.

Wood, W., Neal, D.T. (2009). 'The habitual consumer'. *Journal of Consumer Psychology*, 19: 579-592.

Wood, W., Quinn, J.M., Kashy, D.A. (2002). 'Habits in everyday life: Thought, emotion, and action'. *Journal of Personality and Social Psychology*, 83/6: 1281-1297.

Wood, W., Tam, L., Witt, M.G. (2005). 'Changing circumstances, disrupting habits'. *Journal of Personality and Social Psychology*, 88/6: 918-933.

Figure. A Typology of Habit

		Low	High
Variability in the Conditions for Activity Performance	Varying	skillful habit	infused habit
	Stable	automatic habit	contested habit

Deliberation within Performance of the Activity

ENDNOTES

[i] In describing the receding of habit within sociology, Camic (1986) points to Durkheim and his view that as a developing field in search of scientific legitimacy, sociology needed to focus on subject matters that other sciences were not studying (i.e., habit belonged to psychology).

[ii] Bourdieu (in Bourdieu and Wacquant 1992: 122) remarked that "I said habitus so as not to say habit."

[iii] What constitutes an action or an activity depends on the level of granularity of the analysis. For example, the action of starting the car engine could be considered an activity made up of various actions such as inserting the key into the ignition, turning the key, etc.

[iv] While routines research often uses "habit" and "skill" interchangeably, we view skill as a particular form of habit, with habit as a broader concept.

[v] Weick, Sutcliffe and Obstfeld (1999) build on Langer (1989) in their treatment of organizational mindfulness, and emphasize interpretive work and cognitive differentiation. However, Weick and Sutcliffe (2006: 517) also argue that "when people enrich the distinctions they make, their efforts begin to resemble practices associated with mindfulness meditation (i.e., Eastern pathways to mindfulness). As a result, their experience becomes less mediated by concepts and more nonconceptual."

[vi] Competing tensions, such as seeking efficiency and needing flexibility, often surface in routines. Viewed through the lens of organizational paradox (Smith and Lewis 2011), routines scholars have tended to focus on different responses for accommodating these tensions, with capabilities-based scholars emphasizing spatial and temporal separation (e.g., standard phases of efficiency-seeking functioning of operational routines vs. change phases in which operational routines are modified), while practice-based scholars emphasize a synthetic view in which routines are simultaneously stable and dynamic.