Ontological shift, or ontological drift? Reality claims, epistemological frameworks and theory generation within organization studies

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Conscious shifts in emphasis between the process and entititative dimensions of management constructs can be an effective method for generating theory. However, such ‘ontological reframing’ requires a consistent epistemological framework: where ontology and epistemology ‘drift’ out of alignment, there is significant potential for confusion. Four kinds of ontological-epistemic movement are described and illustrated, and implications discussed for both theory and practice.
Management scholars differ about the most effective way to develop theory within organizational studies. Perhaps the most obvious debate has been at the level of ontology, between those adopting a relatively uncomplicated, logical positivist worldview associated with the Vienna Circle of thought, that highlights the correspondence between knowledge and observable reality (Pfeffer, 1993; Sutton & Staw, 1995; Donaldson, 1996), and those who highlight the socially constructed, dynamic and partial nature of knowledge (Daft, 1983; Weick, 1989; Hassard, 1993; Burrell, 1997). A particularly polarised example of this difference is the engagement in this journal between Pfeffer (1993), who portrays management science as progressive convergence towards objective truth, and Cannella Jr. and Paetzold (1994), who emphasise the socially contingent nature of management research and thus the impossibility of reaching a single consensus.

Scholars subscribing to a more positivist worldview tend to emphasise the value of enduring models of reality that can be applied across multiple situations. Those subscribing to a more socially constructivist viewpoint tend to emphasise the limitations of such models in engaging accurately with unfolding, often socially inflected, complexity on the ground. As the above exchange in AMR illustrates, positions in this ‘paradigm war’ can become entrenched. In response, many organization researchers have developed epistemologies that are realist, objectivist, and evolutionary, but which also acknowledge the crucial role played by intersubjective, emergent, and metaphysical factors in shaping organizational reality (McKelvey, 2003). Such constructs are described as ‘mid-range’ theory (Merton, 1949; Weick, 1989). Mid-range theory acknowledges the importance of abstraction, representation and refinement of general principles that apply across multiple situations, whilst also recognising the limitations of such entitative abstractions in accurately representing emergent, contingent and locally specific reality. Examples of mid-range theory used within organization studies include institutional theory (DiMaggio & Powell, 1983), information theory (Weick, 1969), information diffusion theory (Rogers 1962), role theory (Sarbin 1966), and situated learning theory (Lave & Wenger 1991).

However, the term ‘mid-range theory’ masks a range of differences in emphases: some constructs highlight the entitative aspects of a phenomenon, whilst others highlight its more situated, contingent and emergent aspects. Even minor shifts in emphasis can be helpful in identifying different aspects of a phenomenon, and combining and comparing these different perspectives is often valuable for generating new theory. A clear example is recent developments in our understanding of organizational knowledge, now understood by many as “embrained, embodied, encultured, [and] embedded” – and hence immanent within inter-subjective processes – but also “encoded”, and reflecting a more explicit organizational reality (Blackler 1995).

These concepts lie in various positions across the spectrum between the traditionally more polarised ‘process’ and ‘entitative’ conceptions of organizational knowledge, and their differing positions along the spectrum have enabled a more multifaceted understanding of the phenomenon under study. Similar multifaceted approaches to organizational knowledge that combine elements of entitative and process thinking include conceptions of knowledge as “the residue of thinking” (McDermott 1999:105), a phenomenological emphasis on the process of ‘knowing’ (Blackler 1995) and a conception
of the organization itself as a distributed knowledge system (Tsoukas 1996). In turn, these enhanced perspectives have fed through to the practitioner literature (e.g. Von Krogh, Ichijo, & Nonaka, 2000; Davenport & Prusak 2000).

This paper seeks to build a deeper understanding of how scholars can consciously use relatively minor alterations in ontological emphasis such as those described above to enable a creative process of generating mid-range theory. However, it also focuses on the importance of supporting such shifts in ontological emphasis with a consistent shift in epistemological framework. In other words, it demonstrates the negative effect on construct clarity that can occur where epistemology and ontology ‘drift’ out of alignment with one another such that entities are discussed as if they were processes, and processes are discussed as if they were entities.

For example, when discussing the more explicit, encoded aspects of organizational knowledge, a representational epistemology should be used that is consistent with a discussion of stable entities at the ontological level. Here, concepts such as documented routines, information, data, knowledge capture, and codification are appropriate; using concepts such as ‘practice’, ‘identity’, and ‘power’, borrowed from more process-oriented thinking, would make for an unclear discussion. Similarly, approaching the more tacit, embodied aspects of knowledge, such has been identified as important in generating social capital (Adler & Kwon, 2002), requires engaging with something more subjective that emerges through activity and over time. Here, an epistemology is required that is capable of engaging with aspects of dynamic process at the ontological level, such as ‘practice’, ‘identity’, and power – and discussion of documented routines, information, data, knowledge capture, and codification is confusing in this context – although there is ample evidence that this happens (e.g. Pugh & Dixon 2008).

The argument is organized into three sections. The first section describes in greater detail how process worldviews differ from their historically more mainstream entitative counterparts. It outlines the great importance of maintaining epistemological and ontological alignment during the alterations in emphasis from one to the other that take place within mid-range theory. Changes in ontological emphasis that maintain ontological-epistemic alignment are termed ‘ontological shift’, and are considered to maintain the integrity of a construct; those changes where such alignment is not maintained, and the construct is considered to have been compromised, are termed ‘ontological drift’. The second section illustrates the significance of the argument through a detailed empirical example of the evolution over time of the ‘community of practice’ construct (Lave & Wenger 1991), in which examples of both ontological shift and drift are visible. The community of practice literature is a valuable case study in this regard, since it exemplifies mid-range theory in which constructs have undergone successive changes in emphasis, in this case from an initially process-oriented towards a progressively more entitative worldview. The third section provides a discussion of the implications of the concepts of ontological shift and drift for organizational theory-building and practice.
BACKGROUND TO KEY CONCEPTS

Process and Entity

The relationship between the notion of a thing, or ‘entity’ (stable, solid, bounded, controllable) and a process (unstable, fluid, emergent, elusive) is one of the oldest philosophical debates known to humankind, in which the “ruling tradition” is "the Platonic and Aristotelian belief that fixity is a nobler and worthier thing than change" (James 1909, in Tsoukas & Chia 2002: 569). In a clear and illuminating essay, Chia (1997), a leading exponent of process-oriented management studies, traces the roots of this ruling tradition in the Greeks’ ontological commitment to the unitary, permanent and unchangeable reality of Parmenides, in which entities are primary to process: it is things that change.

Within the field of management, mid-range theory has been developed by scholars adopting primarily entitative, as well as scholars adopting primarily process-oriented, worldviews. More entitative approaches to theorising about organizations are exemplified by the Aston group (e.g. Pugh, Hickson & Hinings, 1986), which sought to build mid-range theory around the principle of classification of similarities and differences between organizations. As Chia (1997) points out, the resulting systems view, in which organizations are viewed as distinct entities, has been influential within mainstream organizational thought, and forms the dominant approach within a range of organizational studies, including textbooks (e.g. Wilson & Rosenfeld, 1990; Donaldson, 1996).

In contrast, the process viewpoint takes the view that apparently stable entities are in fact more accurately viewed as unfolding processes (‘you never step in the same river twice’). Because this may be less familiar, a short explanation of this viewpoint is offered below. Process-oriented theorists argue that if we build theory about what happens to things, it becomes difficult to appreciate processes in which the ‘thing’ and the ‘happening’ are collapsed into a single becoming (e.g. Tsoukas 1996, Feldman 2000, Chia 2002, Sturdy 2003, Carlsen 2006). An associated literature has also developed concerned with the co-constitution of human agency and social factors in unfolding ‘practices’ (for a review, see Schatzki 2001).

A useful introduction to the value of process thinking for management scholars who may be unfamiliar with its full implications is Bakken and Hernes’ (2006) paper entitled ‘organizing is both a verb and a noun’, which proposes that researchers should be cutting verbs and nouns from the same cloth (2006: 1602). In illustrating the co-constitution of verbs and nouns, Bakken and Hernes draw on Von Foerster’s example of the ‘pseudopod’ whereby amoebas or similar unicellular organisms extend temporary projections to propel themselves or engulf food, shown in Figure 1 below:
The above illustration shows various ‘snapshots’ of the organism in its fluid movement from position/form 1, to position/form 6. Although we can see six isolable, spatially separate positions during its trajectory – to which we might attach labelling nouns, the pseudopod is always moving. Any representative snapshot taken of the pseudopod at, say position 2 would be an inaccurate representation of the organism, since it bears no relationship to its shape moments later at, say, position 4: the labels are inadequate for describing something that works as a process, since they exist only for a moment. Taking more snapshots in ever finer gradations of atomistic reductionism between these positions would never entirely describe the pseudopod either; there would always be fragments of movement that would elude capture by these snapshots. In this example, scholars of organizational process would argue that a noun-based epistemology is profoundly inadequate for engaging with the ontological status of the pseudopod, since it is unable to capture its essence. In contrast, they would claim that the ‘essence’ of the pseudopod lies in its fluidity - for which it is necessary to combine a physical dimension (noun) with a temporal dimension (verb). The pseudopod exists, and should be discussed, within both dimensions.

Scholars adopting a strongly process-oriented worldview highlight the shortcomings of the snapshots abstracted from the unfolding process in Figure 1. However, in communicating a sense of the contextually contingent fluidity with which the pseudopod moves, such entitative abstractions remain useful indicators of the manner of the pseudopod’s movement, and thus of its nature. In this sense, and returning to the relationship between process and entity, the pseudopod example demonstrates the usefulness of both perspectives in studying different aspects of a phenomenon. By the same token, in organizational studies, we continue to use organograms as convenient, useful representations of organizational structure within mid-range organizational theory, although experience tells us that these entitative snapshots tell us little about what is actually going on, and that these are quickly out of date.
The important point made here is that both entitative and process-oriented perspectives bring valuable attributes to our understanding of the world. Shifting between more process-oriented and more entitative perspectives on a phenomenon can generate new theoretical insights providing their respective strengths and limitations are understood. As pointed out by Van Maanen, Sorensen, and Mitchell (2007), theorizing always entails trade-offs between simplicity and complexity, originality and semblance, and specificity and generality. When undertaking shifts in ontological emphasis to highlight another dimension of a phenomenon, we are necessarily making a new trade-off between entitative and process perspectives in which one is necessarily emphasised at the expense of the other. Of central importance in this paper is what happens when such shifts take place. The next section seeks to build a detailed understanding of what is involved when such trade-offs occur, and explains how these can be achieved positively, as well as what can happen when entitative and process perspectives become misaligned, and we attribute process-like qualities to entities, and vice versa.

**Ontological shift or Ontological drift: Abstraction, Conjunction, Reification and Processification**

Figure 2 sets out a number of important characteristics that mark the differences between a process-oriented and an entitative worldview. More specifically it highlights the characteristics of their respective epistemologies and (top half) and ontologies (bottom half). As has been demonstrated using the examples of organizational knowledge and the pseudopod, a process ontology that sees the world as comprising entity and movement (quadrant 2) requires a more holistic, contingent epistemology capable of engaging with such a worldview (quadrant 1). Figure 2 also illustrates that an entitative ontology that sees the world as made up of more stable, independent structures requires a corresponding ‘snapshot epistemology’ for which more objective representations are appropriate. For example, if we are describing an ontologically stable entity such as an office block or an explicit, codified piece of information (quadrant 4), the epistemological framework in quadrant 3 is more suited. In this way, the pairings of quadrants 1&2 and 3&4 show epistem-ontological alignment.

Further, Figure 2 posits that four different types of epistem-ontological movement are possible as constructs develop and evolve. The first movement is abstraction – left to right in Figure 2 (quadrants 1&2 to 3&4), in which, like the pseudopod, a representation is literally ‘abstracted’ from an ongoing process, in order to give form to the flux of organizational experience. Examples of such a movement include the generation of ‘best practice’ artefacts from emergent, sociomaterially embedded organizational practice, such as unified modelling in organizational workflow design (Rashid, Masood, & Weston, 2009), the definition and adoption of common standards to enable supply chain integration (Xu, 2007), and the central role of endorsed standard practices within professions (Mahony, 2003). In these examples, the limitations of the abstraction process are acknowledged, within a conscious ‘ontological shift’ in which the intent is to simplify the complexity of organizational process into an isolable entity, whose simplified properties can then be used to advantage.
Ontological shift or ontological drift? A typology for maintaining construct clarity

The second movement, here termed ‘conjunction’, is in the reverse direction, right to left in Figure 2 (quadrants 3&4 to 1&2), and this reversal is reflected in its name, whose Latin root is the literal inverse of abstraction. Conjunction involves an equally conscious shift from a purely entitative worldview to one that seeks knowingly to explore the more processual, conjoined dimensions of a construct. A good example of conjunction is Nonaka and Takeuchi’s (1995) ‘knowledge spiral’, which sought to challenge many organizations’ assumptions that their knowledge was located primarily in entitative, explicit forms by exploring the tacit processes through which such mainstream knowledge assets are
created and refined. When discussing the tacit components of their knowledge spiral - socialisation and internalisation - Nonaka and Takeuchi (1995) are careful to emphasise that organizations require a very different way of conceptualising and treating such tacit components from the ways in which they treat the more explicit, isolable activities of externalising and combining knowledge. Nonaka and Takeuchi’s ‘knowledge spiral’ is in fact an example of a mid-range theory based on a knowing ontological shift back and forth between abstraction and conjunction.

A further, more recent example of ontological shift involving conjunction is the ‘strategy as practice’ movement (e.g. Whittington 2003; Jarzabkowski & Spee, 2009) which seeks a view of strategy as ‘what people do’ (quadrant 2) rather than as an entity such as a strategy document, or roadmap (quadrant 4). In highlighting “the complexity of processes that give rise to a strategy and the political influence of many organizational members in doing so, not only through formal organizational processes but also in their everyday activities” (Johnson, Langley, Melin, & Whittington, 2007: 6), strategy as practice researchers stress the way that entitative conceptions of strategy can be enhanced through a lens that highlights its enacted, and thus necessarily conjoined, dimensions. The epistemological shift is subtle, however; such a view continues to acknowledge the importance of artefacts such as formal processes and documents in crystallising strategic direction, and thus does not attempt inappropriately to supplant an entitative with a process worldview. Strategy as practice appears to be a further good example of the potentially rich potential for theory generation that can be achieved by reframing a previously entitative construct via a conjunctive shift in ontological emphasis.

In addition to the two kinds of ontological shift, Figure 2 shows that two kinds of ‘ontological drift’ are also possible, in which epistemology and ontology become misaligned with a correspondingly negative effect on the clarity of the construct. One of these, reification, forms the third possible movement in Figure 2, and is a commonly acknowledged fallacy (Lefevbre, 2004, Whitehead, 1925), deriving from the Latin words for ‘thing’, res, and ‘to transform’, facere (Douglas, 1986). Reification describes the attribution of entitative existence to processes (quadrants 3&4 to 3&2) – or transforming a social construct (such as an institution) into a thing with unquestioned, separable ontological existence, and ‘phantom objectivity’ (Lukács, 1969). Such a fallacy is described as a form of ‘ontological drift’, as the ontological claims have ‘drifted’ out of alignment with the appropriate epistemological lens. Various strands of institutional theory (eg Hall & Taylor, 1996) are indeed definable as conscious attempts to avoid attributing standalone ontological existence to institutions and thus unintentionally reifying them, by being careful to acknowledge their embeddedness in ongoing socio-political-cultural processes.

Avoiding reification is not always easy, however; continuing with institutional theory, for example, there is evidence (Kim 2005) that some theorists have tried to apply an overly static, entitative epistemology (quadrant 3) to understand institutional continuity over time, resulting in epistemic-ontological misalignment and loss of construct clarity. In such cases, an entitative focus on constraining structures may appear at first sight more appropriate for explaining continuity - but is actually inappropriate for explaining continuity conceived as emergent process (eg March & Olsen, 1989; North, 1990). In
contrast, Kim (2005) advocates an approach that views institutional embeddedness over time as a process of constant change (quadrant 1) – a ‘correct’ alignment of epistemology and ontology, that is also theoretically generative.

A further example of ontological reification is the apparent transformation undergone by the concept of ‘tacit knowledge’ amongst a sizeable management audience. Anyone seeking confirmation as to the organizational impact of this debate and conducting a quick internet search on the phrase “knowledge harvesting” will find that this concept has spawned a large industry in itself, and had a major impact on the direction of many organizations’ knowledge and training programs: a particularly marked example of this is the National Health Service in the UK, whose online dictionary explains that “Knowledge harvesting is an approach that allows the tacit knowledge or know-how of experts and top performers in an organization to be captured and documented.” (NHS 2005). In such cases, ‘tacit knowledge’ has come over time to represent for many people an entirely different phenomenon at the level of experienced reality, transforming, in this case, from a description of an embodied, lived experience that emerges in practice, to a description of a disembodied entity that can be transferred and stored at will, with associated techniques and methodologies. The implications of such a shift for the way in which organizations should seek to support their knowledge workers are profound.

The fourth kind of possible movement in Figure 2, termed here ‘processification’, is the opposite of reification, and is the second kind of ontological drift. Reflecting the derivation of its counterpart reification, processification also derives from its Latin root, in this case the words for ‘process’, processus, and ‘to transform’, facere. Processification remains less explored, but like reification is also a fallacy, and describes the attribution of process-like qualities to entities (quadrants 1&2 to 1&4). This fallacy is potentially more dangerous to practitioners and researchers alike, since in representing things using process terms, organizations may be tempted to believe that their initiatives are more embedded or conjoined with supporting sociocultural processes than they actually are.

An example of the danger of processification is the controversy surrounding the methodology of participative evaluation within development organizations (Cooke & Kothari 2001). Cooke and Kothari chart the rise to mainstream during the 1990s of ‘participative’ methodologies that sought to turn previously ‘top down’ decisions about peoples’ futures into ‘bottom up’, open-ended processes of consultation capable of better engaging with emergent complexity on the ground. In time, the very success of such approaches ensured that these became progressively hardened into standard ‘best practice’, with the result that at times ‘participation’ became little more than a required name-check in securing funding. The significance of this controversy lies in the important political connotations involved where something that has undergone ‘ontological hardening’ into an entity continues to be represented at epistemological level as a process: in Cooke and Kothari’s terms, decisions affecting communities are often framed using participative language as if these formed part of an open-ended process, when in reality participative activities are translated into pre-authorised categories and targets (ibid., 2001: 27).

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Summarising thus far, this paper highlights the way in which the development and evolution of mid-range theoretical constructs over time necessarily involves subtle alterations in emphasis along the process-entity spectrum, that demand close attention to ensuring a continued alignment between epistemology and ontology. A distinction is made between four possible types of such alteration: abstraction, conjunction, reification and processification. Abstraction and conjunction constitute instances of often richly theoretically generative ‘ontological shift’ where such alignment is maintained. Reification and processification constitute a more problematic ‘ontological drift’, where epistemology and ontology become ‘unmoored’ one from the other, resulting in loss of construct clarity. The next section provides an empirical example of all four instances of ontological shift/drift over time within the literature associated with communities of practice, or ‘CoPs’ (Lave & Wenger 1991) – a construct that has had a major impact on scholars and organizations alike.

ONTOCLOGICAL SHIFT AND DRIFT WITHIN THE COMMUNITY OF PRACTICE CANON

Stemming from an original, ‘ancestor’ construct, cognition in practice (Lave 1988), the family of CoP-related constructs includes communities of practice (Lave & Wenger 1991, Wenger 1998), constellations of practice (Wenger 1998), networks of practice (Brown & Duguid 2000), collectivities of practice (Lindkvist 2005), inter-organizational communities of practice (Moingeon, Quelin, Dalsace, & Lumineau, 2006), and virtual communities of practice (Dube, Bourhis, & Jacob, 2006). These apparently similar-sounding constructs are particularly useful for illustrating how the change in perspective described in this article can be both richly generative where an ‘ontological shift’ is made explicit, as well as confusing in those cases where ‘ontological drift’ appears to have occurred between the nature of claims about the world and the conceptual lens through which these are discussed.

Methodology: Construct Clarity and Genealogy

In order to separate these, superficially similar, constructs from one another, Suddaby’s (2010, this journal) definition of construct clarity is applied to each construct to identify in each case whether ontological shift or drift has occurred, and to demonstrate any resulting effect this may have had – positive or negative - on theory generation. Suddaby proposes that clear constructs should be first, precisely defined; second, used in a clearly explained and appropriate context; third, draw strength from their location within relevant semantic relationships; and fourth, cohere together in a logically consistent manner. Suddaby’s definition is useful for the present purpose, since it invites explicit consideration of the level of ontological-epistemic alignment within a construct. Beginning with ontology, a precise definition of a construct allows the reader to determine whether the claim being made about reality at the ontological level concerns an entity, or a process, or both. Furthermore, the empirical context within which the phenomenon appears to be located provides further corroboration of the ontological status of the phenomenon under discussion: for example, whilst tacit knowledge is unlikely to be found in library books,
(the context is at odds with the definition), we know we are more likely to be on the right track if our empirical context lies in observed practice such as managers’ application of judgment.

Similarly, analysis of the *semantic relationships* between a construct and those associated constructs from which it draws theoretical strength is a clear indicator of whether its epistemology is aligned with its ontological claims. For example, Bourdieu's (1977) notion of ‘habitus’ is likely to offer a more consistent epistemological framework for a discussion of tacit knowledge than cognitive information processing theory (Reiser & Dempsey, 2007). Finally, Suddaby proposes that “the construct, its definition, its scope conditions, its lineage, and its relationship to other constructs must all make sense” (2010: 351) – in other words, he invites consideration of the *coherence* of the construct across these dimensions: in the terms used here, the assessment a) of a robust ontology, b) a consistent epistemology, and c) consistent alignment between the two. Suddaby's framework of construct clarity therefore offers an explicit assessment for determining whether, and what type of, ontological shift/drift may have occurred.

The results of such an analysis can then be plotted on a genealogy that exposes differences between epistemological constructs that may on first inspection appear closely related to one another, but which in fact actually rest on very different ontological underpinnings. The concept of genealogy is most associated with Charles Darwin, whose ‘Tree of Life’ sketch from ‘Notebook B’ of his voyage on the Beagle, dating from 1837-8 and reproduced at Figure 3. The diagram constitutes the earliest and best known approach to explaining the ‘transmutation of species’ in which several differentially related species might evolve over time from a single starting point. The notes read:

Thus between A & B immense gap of relation. C & B the finest gradation, B & D rather greater distinction. Thus genera would be formed. — bearing relation (page 36 ends - page 37 begins) to ancient types with several extinct forms.
FIGURE 3
Darwin’s Tree of Life Sketch, taken from Notebook B (1837-8) (University of Cambridge Library)

Here we have a basic methodology for assessing the degree of relatedness/difference between different organisms of possibly similar appearance. For example, the genealogical differences between various organisms can be set out clearly through use of a taxonomic table. In this instance, Table 1 shows clearly that, although superficially similar, sharks and whales share only one character state, the vertebral column:

<table>
<thead>
<tr>
<th>Character States</th>
<th>Taxa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shark</td>
</tr>
<tr>
<td>1. Vertebral column</td>
<td>+</td>
</tr>
<tr>
<td>2. Bony internal skeleton</td>
<td>+</td>
</tr>
<tr>
<td>3. 4 limbs; 5 fingers &amp; toes</td>
<td>+</td>
</tr>
<tr>
<td>4. Lower temporal fenestra</td>
<td>+</td>
</tr>
<tr>
<td>5. Upper temporal fenestra</td>
<td></td>
</tr>
</tbody>
</table>
6. Antiorbital fenestra
7. Amniotic egg
8. Mammary glands
9. Endothermy
10. Reduced 4th & 5th digits
11. Fully upright posture
12. Long S-shaped neck
13. Long hands
14. “Bird-hipped” pelvis

<table>
<thead>
<tr>
<th>Character State</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
<th>Value 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Antiorbital fenestra</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>7. Amniotic egg</td>
<td>?</td>
<td>+</td>
<td>+</td>
<td>?</td>
<td>+</td>
</tr>
<tr>
<td>10. Reduced 4th &amp; 5th digits</td>
<td></td>
<td></td>
<td></td>
<td>+</td>
<td>+</td>
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<tr>
<td>11. Fully upright posture</td>
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<td>+</td>
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<tr>
<td>12. Long S-shaped neck</td>
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<td>13. Long hands</td>
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<td>14. “Bird-hipped” pelvis</td>
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**TABLE 1: Taxonomy of character states (from Carlson 1999)**

In Figure 4 below, Carlson (1999) demonstrates the power of phylogenetic trees in laying bare the extent of genealogical difference between apparently similar organisms: in this case, although the whale and the shark appear to be closely related, the closest relationship is actually shared between the whale and the human.

**FIGURE 4**
Defying Appearances: Are Whales Closer to Sharks, or to Humans?
Phylogenetic Tree (from Carlson 1999)

This methodology for exposing genealogies of difference between apparently similar organisms is arguably equally useful for exposing differences between apparently similar ideas, such as constructs ending with the ‘-of practice’ suffix. The next section makes use of Suddaby’s criteria for construct clarity to assess relative robustness of ontology, consistency of epistemology, and degree of ontological-epistemic alignment between the seven related, apparently similar ‘-of practice’ constructs, displaying these on a similar taxonomic table – Table 2 – that exposes their genealogy of difference.
Exposing Ontological Shift and Drift Within the CoP Canon

Cognition in Practice (Lave, 1988). CoPs arguably have their origin in Jean Lave’s Cognition in Practice (1988), a critique of cognitivist anthropology, psychology and sociology, in which she performed a conscious ontological shift of conjunction, arguing that self-contained, entitative notions of individual cognition had no real existence outside of “the whole person in action, acting within the settings of that activity. It is within this framework that the idea of cognition as stretched across mind, body, activity and setting begins to make sense (1988: 18). In response, Cognition in Practice drew on early ‘practice theorists’ such as Giddens (1979) and Bourdieu (1977), outlining a strongly practice-based worldview that corresponds with the characteristics appearing at the ‘process’ end of the spectrum in Figure 2. At the level of ontology, the definition of the phenomenon under study is a process, the context within which the phenomenon is studied is the ‘whole person in action’, and at the level of epistemology the construct has semantic relationships with various theories of practice. Table 2 therefore shows the ontological-epistemic alignment of ‘cognition in practice’ along the process dimension (shown as ‘P’ to refer to ‘process’), and that this therefore be considered an example of theoretically generative ontological shift – from ‘person’ to ‘whole person in action’.

Community of Practice ‘1’ (Lave & Wenger, 1991). Drawing on and extending this analysis, Lave and Wenger’s (1991) seminal book Situated Learning: Legitimate Peripheral Participation described a delicate cognitive dynamic – a process – that they had identified as occurring amongst small groups of artisans. The process describes a virtuous circle where novices begin participating on the periphery of group social interaction and, as they do so, begin to learn and internalise culturally accepted ways of acting within the group. Novices’ sustained participation and associated learning about how to behave results over time in their increased proficiency and performance within the group. This increased proficiency leads in turn to their increased motivation and identification with the group itself. Simultaneously, with sustained proficiency and performance comes increased social legitimacy of novices’ knowledge claims, as they move in status from newcomers at the periphery of the group towards greater acceptance by, and location within, the core of key members.

This construct, which Lave and Wenger termed legitimate peripheral participation (LPP), is argued to be a useful way to understand how participation, learning, personal identification, performativity, and social status interact with one another within an unfolding social context. Although Lave and Wenger’s core idea (and the title of their book) concerned an unfolding process, they also coined a term to represent any small group of people engaged in this process: community of practice. A key point here is that ‘community of practice’ is an entity, but it makes sense only as a construct in relation to LPP, a particular, carefully defined process. Table 2 therefore shows that although the notion of a CoP – an entitative term - has been introduced into the construct, the definition of the construct itself remains firmly a process (LPP). Similarly, the context remains that of situated activity – an unfolding process – and the semantic relationships upon which the construct draws are consistently process- and practice-related. In various ways these all investigate cognition/activity and culture as a mutually constitutive dialectic, including
those of Bourdieu (1977), Giddens (1979), Engeström (1987), Lave’s previous work on practice (1988), Orr (1986) and Wertsch (1985). *Situated learning* is therefore shown in Table 2 as exhibiting ontological-epistemic alignment and construct coherence, and ‘ontological stasis’ in that there has been very little movement from Lave’s original process-oriented positioning.

**Community of Practice ‘2’ (Wenger, 1998).** Following on from his 1991 work with Jean Lave, Etienne Wenger published a book in 1998 that sought to flesh out the CoP construct (here termed Community of Practice ‘2’), and apply it explicitly to the organizational setting. Wenger’s book *Communities of Practice* begins by building on the ontological commitment to process of his work with Lave, drawing on various process-oriented theories of practice, meaning, situated experience, subjectivity, and identity (1991: 14). However, the primary focus exhibits a shift away from Lave and Wenger’s original dynamic of LPP, a firmly process-oriented worldview, to the more entitative construct of the CoPs themselves – those groups of people who may be said to be exhibiting signs of this dynamic. Wenger’s book constitutes a shift in focus from the anthropological observation and analysis of localised process, characteristic of his 1991 work with Lave, to architecture of organization-wide generative infrastructure around which it is argued that a similar process may occur. Rather than processes, organizations are now seen as social designs directed at practice (1998: 241).

However, despite the shift of definitional focus onto the CoP construct and shift of context to (similarly entitative) organizational “learning architectures” (1998: 237) Wenger continues to acknowledge the importance of a process dimension within the construct. He does this via a thoughtful discussion of “the concept of reification”, defined as “the process of giving form to our experience by producing objects that congeal this experience into ‘thingness’” (1998: 58). In particular, a strong link is maintained between the notion of CoP as reified form, and its underlying generative dynamic, LPP, in which entities and processes are mutually constitutive, comprising a “duality of participation and reification” (1998: 63). For this reason, the definition, context and semantic relationships are all marked as P/E (where ‘E’ refers to ‘entity’) in Table 2, since these all contain an emphasis on both process and entitative dimensions. In this sense, Wenger can be seen to be making a ‘playful’ ontological shift in the form of a slight abstraction towards the entitative pole of the spectrum in Figure 2, whilst maintaining ontological-epistemic alignment, and construct clarity.

Wenger’s ‘playful’ reframing demonstrates the capacity of ontological shift to generate thought within the organizational community. Amongst practitioners, major organizations worldwide have launched ‘professional community’ programmes that aim to replicate the benefits of LPP to serve a range of purposes; although the existence of LPP within such groupings is often not proven, they are often associated with positive benefits (e.g. Lesser & Storck 2001; Sole & Edmonsdon 2002; Pan & Leidner 2003; Garrety, Robertson, & Badham 2004; Dupouet & Yildizoglu 2006). Within the management research community, the construct has generated a rich theoretical debate that includes discussion of critical perspectives (Fox 2000; Alvesson & Willmott 2002; Kimble & Hildreth 2004) and the potential complexity in the relationship between COPs and
canonical organizational structure (Thompson 2005), as well as CoPs’ more mainstream potential as, for example, a valuable professional development tool (Swan, Scarborough, & Robertson, 2002).

**Constellation of practice (Wenger, 1998).** As its name implies, the ‘constellation of practice’ that also appears in Wenger’s *Communities of Practice* is composed of many units of communities of practice, a further shift in entitative focus that is only possible following the first shift. As explained by Wenger:

Some configurations are too far removed from the scope of engagement of participants, too broad, too diverse, or too diffuse to be usefully treated as communities of practice (Wenger 1998: 126-7).

Although, like the CoP, Wenger’s ‘constellations’ construct invokes the ‘-of practice’ suffix, the above definition of constellations of practice shows that these are actually one step removed from actual practice as verifiably experienced by anybody. In his discussion of CoPs, Wenger notes that the notion of practice “is a level both of analysis and of experience” (1998: 126) – i.e. that it ‘exists’ at the level of practice, as well as at the level of analysis. This ontological claim surely cannot be made for ‘configurations’ that are ‘removed from the scope of engagement’ (above). It may be important to question the ontological status of these ‘configurations’: are they ‘things’ with real existence, or ‘appearances’? It appears that configurations are ‘continuities’ between collections of objects, practices, styles and discourses (1998: 129) – the ‘shared reifications’ that different CoPs may have in common.

Although constellations of practice continue to carry the ‘of practice’ badge that appears to locate them firmly within a practice-based ontology, closer inspection reveals that they are a double abstraction: a reification of a reification. In this sense the continued use of the ‘-of practice’ suffix offers potential for confusion, since it implies that ‘constellations’ are performed, when we can see that the construct has actually ‘crept’ two steps away from its practice-based root. Table 2 therefore shows the constellation of practice as an instance of *ontological drift*, in which the fallacy of processification has occurred – i.e. where semantic relationships with practice/process theory are invoked at epistemological level to discuss and explain a phenomenon that at root definition is actually an entity, being studied in the context of its relationships with other entities. As a result of this ontological-epistemic misalignment, the constellation of practice emerges as a markedly less coherent construct than the CoP.

**Virtual Community of Practice (Dube et al., 2006).** Dube et al’s ‘virtual community of practice’ (vCoP) is arguably a further example of processification in which an entity is described using process terms. It is therefore another instance of *ontological drift*. The authors describe the vCoP as an organizational form “relying primarily on ICT to connect its members” (2006: 69-70) that no longer bears any trace of its root concept in Lave and Wenger’s work. Although the vCoP continues to locate itself within the ‘-of practice’ genre, the emergent, process-oriented ontology of Lave and Wenger’s original concept has been replaced completely with an entitative ontology. Thus we see the creation of a typology of 21 structuring characteristics (2006: 69) for the creation of vCoPs, which is possible
through “management decisions/actions that can be taken to assure the VCoP’s success in view of a particular configuration” (2006: 88).

The vCoP framework appears to be a structuring typology leading to generic types, that leads in turn to specific configurations of generic types, finally generating management decisions and actions contingent upon these specific configurations of generic types. At the level of ontology, it is thus unclear in what sense vCoPs actually exist – i.e. whether vCoPs inhere in their status as an organizational form, in their membership, or in the ongoing, dynamic activity of their members. Table 2 therefore identifies the vCoP as a further example of ontological drift involving entitative definition and context at the level of ontology, but process-oriented semantic relationships at the level of epistemology.

**Inter-organizational Community of Practice (Moingeon et al., 2006).** An inter-organizational community of practice (IOCoP) is defined by Moingeon et al. as “an organizational form having autonomous governance, gathering voluntary individuals from different organizations, with a common professional practice and aiming at developing their expertise on an individual basis” (2006: 12). Moingeon et al. argue that although CoPs operating across organizations have been studied before, “IOCoPs do not represent a mere subcategory of CoPs, but a unit of analysis per se” (2006: 3, original italics). In spite of these entitative terms that encourage a view of IOCoPs as things, however, closer examination reveals inter-organizational CoPs to be an example of a process being described using entitative language: in this sense the opposite of the two previously discussed constructs, constellation of practice and vCoP, which were shown as entities being described using process language.

IOCoPs are processes described as entities because Moingeon et al. continue to recognise the heritage of CoPs and, by extension, the constitution of IOCoPs in social practice in a manner similar to Wenger (1998) – stressing especially the importance of socialisation and identification. Indeed, IOCoPs are in definition and context an expression of non-canonical, voluntary interactions around common problematics between people from different organizations, a dynamic phenomenon best discussed as a process as shown earlier in relation to the CoP. Table 2 therefore shows IOCoPs as an example of ontological drift in which reification has occurred. This is because a process perspective is taken in the definition and context of the phenomenon under study, but this is not aligned with the descriptive language used at epistemological level, which appears entitative – with the result that it is again unclear in what sense IOCoPs actually exist.