

Habit, experience and environment: A pragmatist perspective

EPD: Society and Space
2020, Vol. 38(2) 345–363
© The Author(s) 2019
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/0263775819882715
journals.sagepub.com/home/epd



Gary Bridge 
Cardiff University, UK

Abstract

Contemporary discussions of human–environment relations see habits as enabling forces of change (becoming) in contrast to traditional views of habit as routine and restrictive elements of identity (being). Vital life (becoming) is realised in habit through body repetition (Ravaisson) or through material force (Deleuze). This paper argues for the significance of the pragmatist work of John Dewey that shares this dispositional, enabling view of habit, but denies any dualism between life and mechanism. The paper explores Dewey’s idea of habits as mechanisms of natural forms of organisation that have different life force, depending on the situational qualities of environment–human transactions. This approach also implicates habit in problematisation. The paper goes on to discuss the implications of pragmatist thinking for understanding human–environment relations and the place that habits have in intervening in and reforming those relations through social activism and public policy.

Keywords

Habit, vitalism, experience, pragmatism, environment, Dewey

Introduction

Human–environment relations are the heart of human geography. The way that humans interact with their environments (be they natural or social) has taken a particular turn in recent geographical research in terms of a renewed interest in habits, which are seen as intermediaries in human–environment relations. Rather than seeing habits as conservative forces of routine behaviour, recent geographical attention has focused on habits as forms of becoming and as vectors of change (Dewsbury, 2011; Lea et al., 2015; Sharpe, 2012). This is

Corresponding author:

Gary Bridge, School of Geography and Planning, Cardiff University, Glamorgan Building, King Edward VII Avenue, Cardiff, Wales CF10 3WA, UK.
Email: BridgeG@cardiff.ac.uk

in part a result of taking environmental processes as much more part of habit formation by conceiving of the environment as ‘vital’ (in having a life force beyond its constituent parts) or materials of the environment (inorganic as well as organic) as having life; ‘forceful materialism’ as Dewsbury and Bissell (2015) have defined it. Geographers refer to Felix Ravaisson’s *Of Habit* (2008 [1838]) as the source of the vitalist idea of habit, or to Gilles Deleuze (1995) for the materialist version. Both these approaches accord autonomy to life force. In this paper I contrast these ideas with the ideas of habit in pragmatist philosophy, which also see the environment as vital and habits as projective, acknowledging life force, but seeing it as emerging from natural mechanisms of organisation (of which habit is one). I suggest how the naturalism of pragmatist philosopher John Dewey situates habit as life force and organisation in a way that also acknowledges environmental forces beyond human purposes. This explains in part the intractability of habits (they cannot be changed by an act of conscious will alone), but it also sees mechanisms in the environment (in the way that habits are inevitably implicated in problematisation) that have the potential to open up habits to more conscious human intervention and change. This is illustrated in four ways for policy formulation and social activism: through interventions in the formation of habits; in overcoming the clash of habits; in the institutionalisation of habits; in habits as background conditions of wider problematisations, such as environmentalism. In emphasising a pragmatic understanding of habit, the paper is also building on a growing interest in pragmatism in geography more widely (for example, Harney et al., 2016; Wood and Smith, 2008).

Contemporary discussions of habit

The analysis of the relationship between humans and their environment has seen a shift towards according more force to the environment and to assemblages of non-human actants (objects, non-human organisms) as well as humans in explaining activity, action, and events (DaLanda, 2016; Deleuze and Guattari, 1987). This has been part of seeing humans as just one component in a more-than-human environment involving a flatter ontology of what constitutes significant activity, one in which the privileged place of human action and reason has been deflated. A more ‘vital’ environment is a result of assembled energies seen either as life force, or as vital matter/materiality. This is underpinned by a processual ontology that sees all phenomena (including what might be seen as inert materials/objects) as emergent or becoming. Stabilising forces that maintain continuity are re-evaluated including the idea of habit – seen as a medium of ongoing activity between environment and humans traditionally conceived as routine – and now seen as a force for change. In this reappraisal of habit, the works of Felix Ravaisson and Gilles Deleuze have been taken up, and in some cases, in comparison with the pragmatist philosophy John Dewey.

Comparisons between pragmatism and Ravaisson’s vitalism have been made across disciplinary approaches (with themed issues on habit in *cultural geographies* and *Body & Society* in 2013). In his discussion of the genealogies of habit, Tony Bennett (2013) makes the distinction between treatments of habit (including Dewey’s) that are in the ‘organic memory’ tradition, in contrast to the ‘vitalist’ tradition of Ravaisson, Bergson and others. The organic memory tradition is post-Darwinian and emphasises the evolutionary influence of the environment on organisms ‘in which habit mediates the relations between inherited and acquired competences’ (Bennett, 2013: 113). Henri Bergson’s vitalist contribution draws on evolutionary naturalism and materialism but, in contrast to these traditions, accords an autonomous force to life (Bennett, 2013). Bennett discusses Bergson’s (2004 [1912]) distinction (from Ravaisson) between ‘habit-memory’ and ‘habit proper’, a distinction also evident in Deleuze’s (1995) distinction between ‘sensory-motor habits’ and ‘primary habits’.

The point of these distinctions is to suggest that there is a more profound form of habit ('habit proper' or 'primary habits') that comes from vital life force or material force that is beyond organic mechanisms and that makes habits subject to unconscious/subconscious change.

In geography ideas of habit have been addressed at different times in ways that reflect certain key traditions of geographical analysis. Much of the classic work in cultural geography at the turn of the 20th century was concerned with establishing the significance of the role of culture and habits of life in 'genres de vie' (Vidal de la Blache, 1903) and sense of place in the landscape against overly deterministic interpretations of environmental influences on human activity (Sauer, 1925). In a related way in the 1960s and 1970s human patterns of activity and their routinized constraints (such as spatial path dependencies and coupling constraints) were also at the heart of time geographies (Hägerstrand, 1970). These approaches to some extent reflect the more Kantian idea of habit as routine, especially its function in place-making, but they also point to the more constructive aspects of habit in the social constitution of meaning and belonging (Bissell, 2015). Further work in humanistic geography in the 1970s and 1980s developed the phenomenological aspects of meaningful environments and the importance of habit in feelings of belonging (Ley and Samuels, 1978; Tuan, 1977).

Phenomenology also influenced work in humanistic geography that highlighted the significance of the body and corporeality as the locus of habit in understanding human–environment relations. Seamon's work (1979), for example, spatialised the ideas of the phenomenologist Merleau-Ponty through the analysis of 'body ballets' and time-space routines of habit (see also Bissell, 2015). Merleau-Ponty's ideas of inter-corporeality and the significance of habit in influencing more cognitive interaction are developed by Lea et al. (2015) (via Crossley's, 2001 work) in their analysis of how much mindfulness meditation can reflexively change habits. Lea et al. see agency as distributed across minds, bodies and contexts and these wider time-space routines compromise the ability of mindfulness to transform habits. Here they are registering the tension between habit as conservation and routine and habit as capacity and projection.

The idea of the distributed nature of habit, across bodies and environments, takes us towards the interpretation of habit in geography as emergent tendency or potentiality. Thus Bissell (2015) sees as habit as a 'virtual infrastructure' comprising propensities and dispositions (Bissell, 2015). The virtual infrastructure of habit can be realised in practical competences in coping with new milieu, but with changing intensities (tracked in the example of long-haul air travel) that in turn affects the capacities of bodies to act (see also Hynes and Sharpe, 2015).

Analysing the significance of the distributed nature of habit for transport geography Schwanen et al. (2012) make an insightful comparison of Ravaisson's and John Dewey's ideas. They acknowledge the similarities between Dewey and Ravaisson in seeing habit as a tendency and of the dynamic and projective aspects of habit. They also note a more environmentally distributed idea of habit in Dewey's work, in comparison with Ravaisson's more individualistic framing. This also applies to the relationship between habits and the inevitable clash of habits, both within the individual organism, and between habits in a more social sense, in terms of customs and institutions. This is part of Dewey's argument on habits in relation to social change and social division, giving his approach a greater radical edge, according to Schwanen et al. (2012). They see the main distinction between Ravaisson and Dewey in Ravaisson's idea of habit as a way of understanding the unity and continuity of nature whereas Dewey is not prepared to 'admit to the improvised spontaneity of all life'

because this ‘would be to lose sight of the dialectical formation of the social that is so crucial to pragmatism’ (Hynes and Sharpe, 2015: 69, referring to Schoenbach, 2004).

I will take up the question of these divisions between ‘life’ and mechanisms in the rest of the paper, suffice to say that, assuming the unity and continuity of nature and the autonomous force of life takes us into treatments of habit in geography that see it as a contraction of wider worldly, immanent forces, certain stabilisations of which, individuate or entrain subjectivities (Dewsbury, 2015). This more open interpretation of habit as a form of becoming is seen in geography in non-representational approaches. Thus Thrift (2007) shifts the emphasis on the historicity of practices and habits (Bourdieu, 1977) towards their spatialities and their performative and processual qualities. This also entails virtualities, the potentialities of practices and their dispersive, differentiating qualities, (rather than being conserving and consolidating). This starts to open up the more emergent, projective idea of habit within geography. Dewsbury (2015), for example, analyses Deleuze’s idea of habit (via Ravaissan) as passive openness to a changing world in which habit is as ‘an occupation’ enabled by ‘material affordances’ of the landscape, that, rather than restricting action, allows subjects to be attentive to new elements that can be taken from repetition. Repetitions are seen as singularities and a form of difference, rather than iterations of sameness. In this way, habit provides the basis for an enduring sense of self (Dewsbury, 2015: 32).

Thus in geography we have seen a range of interpretations of habit, from neo-Kantian conservation and routine, (particularly in relation to place-making), through to habit as a contraction of mobile forces out of which (contingent) forms of subjectivity are entrained. In the rest of this paper, I want to address this shift from habit as mechanism/routine to habit as contraction of life force by first of all taking a step back to acknowledge the long-standing philosophical distinction between ideas of life force and forms of natural organisation/mechanism that lie behind the distinctions made between Ravaissan and Dewey. In the course of this discussion, I argue for the value of Deweyan pragmatism in capturing both vitalist ideas of the environment alongside forms of activity (especially, but not exclusively, human activity) as forms of natural organisation/mechanism. Rather than reproducing the division between life and mechanism, pragmatism suggests how to hold them together but in a way that life (even spontaneous life) emerges from mechanisms. This involves an exploration of a worldly idea of habit and the role of ‘experience’ in the contraction of wider material forces. To do this, the paper first discusses Ravaissan, Deleuze and Dewey’s ideas of habit in more detail before going on to compare them.

Ravaissan and Deleuze on habit

Ravaissan situates habit firmly in an Aristotelian tradition that sees habit as a facilitative life force that reaches down into nature (Ravaissan, 2008 [1838]; Carlisle, 2013). It is a product of repetition, not as routine, but as the acquisition of capacities through the body. Habit observes a ‘double law’ for Ravaissan. As an activity is repeated, the capacity for feeling or passion (that results from the organism’s passivity or openness to the world) diminishes and the capacity for movement or action is strengthened. At the same time, repeated habits have the opposite effect on moral conduct, moving from active to passive, from sensation and moral sensibility towards more unreflexive action. Habit becomes less and less reflective and more and more capable, thus ‘habit demonstrate[s] continuity between necessity and freedom, will and nature’ (Carlisle, 2010: 123). The ‘habit-body’ is a ‘dynamic unity of capacities and dispositions to move, to sense, to experience, and to understand in particular ways’ (Carlisle, 2013: 162–163). These acquired capacities can be realised in different ways – from body finesse and accomplishment (a form of ‘grace’), through to more degraded, compulsive

performativities of the body in forms of addiction. For Ravaisson, moral goodness issues out of nature, as a reflection of divine spirit. It contrasts with the more traditional Kantian view, which sees habit as routine behaviour, and as a restriction or impediment to reason, that should be considered separately from moral life (Carlisle, 2013).

Ravaisson's Aristotelian, more expansive idea of habit, reaching into nature and encompassing the tensions of vital energies, has created an intellectual legacy – from Ravaisson to Bergson (2004 [1912]) and his idea of 'élan vital' and from Bergson through to Deleuze and his figurations of neo-vitalism in assemblages of materials and organisms. In Deleuze's hands (1995) Ravaisson's vitalism becomes more materialist, as micro or molecular repetitions of matter accumulate to form (new) habits, mostly sub-consciously. Repetition for Deleuze is a repetition of singularities, singularities resulting from the constant production of life and matter in a vibrant world. It inclines Deleuze and Guattari (1987) towards a view of nature as mechanism or machine (they call nature a 'war machine'), in the dualism between life and mechanism. However that mechanism is seen in materialist terms in what Jane Bennett has called Deleuze and Guattari's 'machinic materialism' (Bennett, 2010). It is an insistent force of matter, 'the thousands of passive syntheses of which we are organically composed' (Deleuze, 1995: 74) that insinuates change into 'primary habits'.¹ For Deleuze (1995) changes in outward performance are the result of intense biological activity that is not sensible to the actor as habit and it involves body–brain–environment adaption (Bissell, 2013: 122). Again it gives autonomy to life force (as machinic materialism).

Habit for Deleuze is a contraction of matter and the temporalities emergent from the way that matter (inorganic through to organic) contracts the forces of that comprise its present condition:

[m]ateriality is itself a tendency to elaboration, to temporization, the process of becoming alive of the inorganic: to the extent that matter can contract the forces that produce its particular form, it is this tendency, this potentiality or this virtual orientation. (Grosz, 2013: 231)

This virtual orientation is an opening out 'with its necessary duplication of the present and the actual with the unspent forces of the past and the virtual' (p. 233). Repetition is a repetition of singularities that produce difference emerging from the ramifying force of life. As Grosz (2013) defines it, from a Deleuzian perspective, 'habit is the point of transition between living beings and matter, enabling each to be transformed through its engagement with the other' (Grosz, 2013: 217). She goes on (and in a way that uncannily resonates with Dewey's idea of environment–organism 'transactions' – discussed below) '... habits are how environments impact and transform the forms of life they accommodate and are themselves impacted and transformed by these forms of life' (p. 219). Thus, as organisms, 'humans emerge from a contraction of habits which are stabilised from "unthinking" networks of relations' (Colebrook, 2015: 258).

The idea of habit as a contraction of matter with different temporalities reflects how habit has a complex relationship to time for Deleuze – in his the three syntheses of time. Habit involves the passive syntheses that constitute a present (first synthesis); 'habit is the foundation of time, the moving soil occupied by the passing present' (Deleuze, 1995: 79). These passive syntheses allow for sensation and receptivity of the organism, the syntheses of organic and inorganic interactions and their temporalities, in the body. Memory is a more active synthesis of time, in what Bergson called a 'pure past' (second synthesis). Rather than the present being an 'is' and the past an 'is not' (or has been) the fleeting nature of the present, 'is not' and the pure past 'is' through the selections of memory

(Smith, 2013). But the active synthesis of memory requires the passive synthesis of habit such that ‘habit is the constitutive root of the subject, and the subject at root is the synthesis of time – the synthesis of the present and the past in the light of the future’ (Deleuze, 1991: 93). Thus time is a manifold of active and passive syntheses. Memory causes the present to flow back into the past, to be what the present is for the past. But whilst memory particularises time these particularities are not necessarily different moments (O’Keefe, 2016). Similarly habit tends to smooth time, to make it into generalities. For Deleuze both memory and habit must be resisted in favour of repetition, as a form of anticipation or virtuality that differentiates and repeats only singularities (see O’Keefe, 2016: 85–87) to produce the new (future), or third synthesis of time.

The tensions and complexities of Deleuze’s rendering of time are spatialised by geographers by developing his ideas of assemblage, territorialisation and de-territorialisation. Habits can be seen as mind–body-matter assemblages through which, the contraction of matter works, from ‘the thousands of passive syntheses’ of matter all the way through to discursive formations and territorialisations of more enduring meaning. There are excellent exemplifications of this in, for example, Dewsbury’s (2015) example of the instantiation of matter via body routine within the habit landscapes (and discursive formations) of military drill (discussed above).

The Ravaisson/Deleuze vitalist approach sees habit as a contraction of life force that, through its ‘occupation’ of forces, makes change possible. Habits are plastic (Dewsbury, 2015) and thus distinct from habit as mechanism or form of organisation, especially any kind of self-legislating organisation that one might accord to humans. This latter point is where discussions of habit in the Ravaissonian/Deleuzian mould acknowledge but then veer away from more pragmatist accounts of habit (seen as social mechanisms which can be reformed). We now turn in more detail to those pragmatist accounts.

Dewey on habit, situation and experience

Habits are central to John Dewey’s pragmatist philosophy of organism–environment activity. They can be seen as primary units of orientation of life activity, or life function. Dewey defines habit as:

that kind of human activity which is influenced by prior activity and in that sense acquired; which contains within itself *a certain ordering or systemisation* of minor elements of action; which is projective, dynamic in quality, ready for overt manifestation. (1981a: 31–32, my emphasis)

The ordering or systemisation involves habits in ‘setting up a mechanism of action, physiologically ingrained, which operates ‘spontaneously’ automatically whenever the cue is given. But mechanization is not of necessity all there is to habit’ (Dewey, 1981a: 50). By this Dewey means that habits are also enabling (see also Schwanen et al., 2012). Like Ravaisson, Dewey takes an explicitly Aristotelian interpretation of habits as capacities rather than constraints, which are as much environmental as purely organic. They are ‘things done *by* the environment by means of organic structures or acquired dispositions’ (1981a: 15). Thus ‘functions and habits are ways of using and incorporating the environment *in which the latter has its say as surely as the former*’ (p. 15, my emphasis). Since habits are (in part) *in* the environment they are also not confined within organisms, let alone human organisms. They comprise ‘mind-body-environmental assemblages’ (Bennett et al., 2013: 12) that are constantly interrelated, such that certain organic actions are also environmental adjustments. This tension between human habits and environment can be thought of a

stretching or straining of human organic relations with their environments, which is encapsulated in Dewey's core idea of 'transaction'.

Transaction refers to the ongoing co-constitution of organism and environment. By this Dewey means that environment–organism relations are not those of *interaction* between rounded-out objects and complete humans but are rather co-constitutive processual relationships. Thus organic responses to an object or an environmental feature are not *to* it but *into* it (Dewey, 1896: 358). Organic activity is not confined to the organism itself but is 'as much in processes across and "through" as in processes "within" skins' (Dewey, 2008b: 119; Sullivan, 2001). This dissolving of the distinctions between organism and environment is part of Dewey's wider pragmatist effort to dissolve other traditional philosophical dualisms – of subject–object, mind–body and culture–nature.

Habits are bundles of environment–organism transactions and are in particular associated with all mobile higher organisms. They contain forms of intelligent response to the environment, instilled in bodies (what Dewey called 'had' knowledge – knowledge that is intelligent but non-cognitive, as opposed to more reflective 'known' knowledge). Habits apply to higher organisms as a result of their more complex organisation in the way that they transact with the environment:

In contrast with lower organisms ... a higher organism acts with reference to a spread out environment as a single *situation*. What these higher organisms do is conditioned by consequences of past activities: there is learning or habit-formation. In consequence, an organism acts with reference to a time-spread, a serial order of events, as a unit, just as it does in reference to a unified spatial variety ... The action called organic is not just that of internal structures; it is an integration of organic-environmental *connections*. (Dewey, 1981b: 213, my emphases)

There are two key points here. The first is that organic activity is as much a function of environmental relations as it is of relations that are internal to the organism. The second is that the idea of 'situation' is key for Deweyan pragmatism; 'the existence of situations is a primary fact' (Dewey, 2012: 239fn). If habits are projective dispositions, situations are extensive and enduring fields, or modalities, of those dispositions. This is a function of the fact that higher organisms rely on more varied and complex mixes of environments, which increases their vulnerability but also enriches their habits and capacities for response.

The situational contexts of habits become especially important when environment–organism functioning encounters obstacles or difficulties. Where situations become unfamiliar to habitual action, or when established habits clash, they become what Dewey called 'problematic situations' (1986). In some senses this unsettled situation is a failure of habit as life function to ensure that life goes on. This is experienced qualitatively by higher organisms in feelings of unease, apprehension, fear – which are situational (not individual), 'it is the *situation* that is, for example, apprehensive' (Dewey, 1981b: xi). The experience (including emotional force) of the disturbance, is situational, as are the subconscious attempts to resolve it (re-arranging environmental materials, re-arranging the situation). The primary energies of habit are broken down in the situation – so there is situational conditioning at work as well. If problematic situations challenge habit then it is habit that is the first step in re-framing the problem-solution (Dewey, 1986). Materials in the situation in part-frame the emergent problem-solution (rather than simply relying on some kind of recall from organic memory).

A pragmatic approach thus places habit in relation (on a continuum) to problematisation and enquiry. There is a 'pattern of enquiry' (Dewey, 1986) in which habit is central. Habit is

both the medium and the means to initiate transformation. Equally, habits produce actions and ‘the act must come before thought and habit before the ability to evoke thought at will’ (1981a: 25). Habits are the basis for (more occasional) reflective thought if the problematic situation cannot be resolved by embodied, non-cognitive action. The base of the adjustment is biological but the continuity of response can be pushed all the way into the cognitive/reflective realm: ‘... The need for this redirection is the base, biologically, of tension and intention, of attention and intention’ (Dewey, 2012: 223). ‘Thought’ as a natural phenomenon is typically social rather than individual, involving communication and conflict over problems. ‘Mind’ is something achieved through communication, rather than being an individual cognitive ability. Clashes of habits initiate forms of reasoning: the communicative organisation of conflicting or diverse habits (Dewey, 1981b; Bridge, 2005).

Habits also have a profound role in the pragmatist epistemology of organism–environment relations, as part of a wider interpretation of the idea of human ‘experience’. The environment here is the ‘whole biosociocultural context of this or that experience’ (Fesmire, 2015: 51). As Dewey argues:

experience is *of* as well as *in* nature. It is not experience that is experienced but nature – stones, plants, animals, diseases, health, temperature, electricity and so on. Things interacting in certain ways *are* experience ... Experience reaches down into nature; it has depth. It also has breadth and to an infinitely elastic extent. It stretches. (1981b: 12–13, emphasis in original)

Experience encompasses more than what is actively ‘known’. It is limited in effects, both in evolutionary time and being dependent ‘on [natural] forces that go their own way without our wish or plan’ (1981a: 200). But as an objective (rather than individual or subjective) force, experience (of higher organisms) contributes to the shaping of emergent natural processes. This is in part because higher organisms, especially humans, are extensively interconnected with different environments, via ‘situations’ or fields of habit dispositions of ‘mind-body-environmental assemblages’ (Bennett et al., 2013: 12).

Comparing Ravaisson, Deleuze and Dewey

Ravaisson, Deleuze and Dewey thus see habits as enabling dispositions and forces that are implicated in change. Nevertheless there are marked contrasts between Dewey and Ravaisson’s/Deleuze’s views of habit. This can be seen in a number of interrelated ways through their ideas of habit in environment–organism relations and the distinctions between life and mechanism.

In terms of habit processes, for Ravaisson habit can be viewed as a form of repetition resulting in a range of performative outcomes. These ‘performative practices’ are understood as the ongoing intensive dynamics of habit, where repetition is productive of difference that (unnoticed) can produce a permanent change in dispositions (Dewsbury and Bissell, 2015). Dewey agrees that habits can be acquired by repetition (key for Ravaisson and Deleuze) but this is not their essence (Pedwell, 2016). Rather it is the *mode* of response; the *way* of responding to situations that is key. To think about repetition leading to habit ‘puts the cart before the horse’ (1986: 39): it is because organisms have habits that repetition is possible. Rather than the possibility of aesthetic refinement in bodily movement (for example) being a manifestation of a kind of harmonic resonance of organism and environment (as Ravaisson suggests), Dewey sees environmental change as inevitable, resulting in problematic situations. Habits are those bundles of environment–organism transactions that

are challenged, as well as being the initial means of their resolution, transformation, or adaptation.

There are also contrasting attitudes to environment–organism boundaries and relations. Ravaissou's and Deleuze's interpretation of the passivity and permeability of the organism to the vital environment (as life force or material force), and the imperceptible changes underlying motor-sensory changes to 'primary habits' that result, from a Deweyan perspective, seems too one-directional and one-sided in favour of life force. It misses out the organising energies and modes of response that we can see in the relationship between habits, and between situation and habit. In transactional terms habits 'incorporate an environment within themselves. They are adjustments *of* the environment, not merely *to* it' (1981a: 38, emphasis in original). The vital force of repetition conceived by Ravaissou and Deleuze as primary habits cannot imply change through simple life force; the push is already in part-organised to some degree, it is already part habit (as a result of prior transactions). This is why Dewey argues that habits and behaviour cannot be changed by reflective will, but only environmentally. A difficulty of Ravaissou and Deleuze's accounts of vitalism as a kind of insistent force that permeates habits, I suggest, is that, under the guise of suggesting the continuous interpenetration environment and organism, it strangely reproduces a certain separation between the two: one in which an environment (spiritual or material) is endowed with autonomous life which affects the receptive/passive 'habits proper' (Bergson/Ravaissou) or 'primary habits' (Deleuze) of the organism to instantiate the change. A pragmatist consideration of the organising energies of transaction, situation and experience point to wider socio-environmental conditionings that point to complex geographies between the 'forceful materialism' and 'affect milieu' identified in current geographical research (Dewsbury and Bissell, 2015).

This brings us to the distinction between ideas of life force and mechanism. This debate has persisted in different guises in philosophy over several hundred years. Ravaissou was in some senses responding in his time (*Of Habit* was published in 1838) to the growing influence of natural science which threatened to explain much of human life in mechanistic terms, and to which the idea of vital life was a repost to defend a theistic idea of spirit. In terms of the contemporary debate over habits Deleuze takes the idea of life force but as a mechanism of the constant force of matter. In contrast Dewey sees habit as mechanism that differently organises life force.

Testa (2017) has argued recently that in *Human Nature and Conduct* Dewey developed a strong criticism of ideas of life force (such as Bergson's vitalism, and, by implication, Ravaissou's on whom Bergson draws) that 'assume a dualism between life and mechanism' (Testa, 2017: 9). Dewey argues that all life is mechanism. In the case of human organisms, it is a physiological structure, reaching into the environment, which constitutes a mode of spontaneous response. But as we have seen in his idea of habit 'mechanisation is not of necessity *all* there is to habit' (1981a: 50, emphasis in original). It also permits creativity or virtuosity (an intelligent rather than routine use of mechanism).

Dewey's point that 'all life is mechanism' is made in a number of ways. First is the basic differentiation between organic forms of life with more complex organisms having more interactive mechanisms:

All life operates through a mechanism, and the higher the form of life the more complex, sure and flexible the mechanism. This fact alone should save us from opposing life and mechanism, thereby reducing the latter to unintelligent automatism and the former to an aimless splurge. (1981a: 51)

Habits as mechanisms can take different forms, in terms of levels of skill, or intensity, and have different levels of energy across (and indeed within) organisms. Thus, rather than a separation of creative *élan vital* from habit to allow some for some sort of spontaneity in nature, Dewey maintains that all forms of action, from mechanical action through to that of the creativity of the artist, are just different types of mechanism. As Testa (2017) argues, habit for Dewey is ability, an art that is formed by past experience. Habits can be expressive: the virtuoso artist or performer is the accomplished technician ‘who fuses mechanism with thought and feeling’ (1981a: 51). There are habits that are full of energy and expansiveness and other habits that stagnate and delimit growth: ‘living’ and ‘dead’ habits respectively (Dewey, 1981a). Flexible habits have to be instantiated in an automatic way, just as much as inflexible ones. The force and impact of life energy can also change within mechanisms, as living habits become dead ones, as intelligent, reflexive habits become inflexible and routine. Mechanisms of social habit (customs) organise more impulsive, spontaneous behaviour: ‘the meaning of native activities is not native: it is acquired. It depends on interaction with a matured social medium’ (Dewey, 1981a: 65). Thus the force of habit varies with the changing nature of the (biosocial) environment. This, I suggest, has a double effect: in the organisation of repetition ‘going in’ to habit (in contrast to the linear effect of materialism) and in the way repetition is, or is not, ‘taken up’ – the force (or otherwise) that it has. Some forces may misfire, or not ‘catch’ in this way. Life force requires organisation. That is why Dewey criticises the ‘aimless spurge’ that he attributes to part of Bergson’s (and by implication Ravaisson’s) idea of vitalism.

Mechanisms of habit interacting in a matured social medium inevitably lead to a plurality of habitual dispositions or ways of responding. In seeing life force as insistent pressure contracted by habits into the aesthetics of bodily practices and subjectivities, contemporary geographical research has been less concerned with this field of contestation of habits. Conflict over habits and the plurality of habits, for an individual organism or a group of human organisms, finally brings the cognitive phase of action into play. Again in geography the focus on habit and affect eclipses any considerations of the relationship between habit and cognition or ‘thought’, especially when the latter is assumed to be associated with sovereign will and reason. For Dewey, conflict between habits requires resolution and that demands reflective judgement on habit or the justification between conflicting habits. It is here that Dewey’s criticism of the separation of mechanism and life in relation to habit has real bite in terms of wider social critique. Habit can *become* (or be enforced as) a mechanism that is opposed to life, in forms of ‘over-mechanisation’ (Testa, 2017: 11) in which organic mechanization is turned into inorganic mechanisation. This, for example, informs Dewey’s analysis of the reification of industrial labour in which living patterns of interaction become routine habit and the mechanisation of production turns the habits of workers into mechanistic ones: reinforcing an historic division between the labour/working class and leisure/bourgeois classes. Thus a duality of life and mechanism can become a force of social domination and oppression.² Dewey goes on to suggest how dualities of life and mechanism can be overcome, through interventions aimed at meliorating and reforming the environment and situation of habits.

The final contrast between Ravaissonian/Deleuzian and pragmatist approaches to habit is in the relationship of habit to time and space. Deleuze’s emphasis on emergence and constant-becoming puts habit in the present as a contraction of nature but with a passive relation to time through the ‘the thousands of passive syntheses’ of organic composition, ‘the moving soil occupied by the passing present’ (Deleuze, 1995: 79). Memory is a more active synthesis of time but one that particularises through analogy (and thus loses

difference or novelty). Deleuze's orientation is to virtuality: the press of the future in the present, through the repetition of singularities.

In contrast, the Deweyan approach to habit emphasises a 'live' present infused with the possibilities of the past, in which 'the present is complex, containing within its self a multitude of habits and impulses' (Pedwell, 2016: 110). Progress is an increase in present meaning (p. 110) in environment–organism transactions. In terms of my arguments about the links between habit, situation and experience, enduring and extensive spatio-temporal situations (of human, non-human and object relations) in experience are potentially relevant to the immediate problematic situation. Dewey (2012) seems to imply that these extensive and enduring environments instantiated in habit and action can be thought of as a kind of meta-situation. Unlike the ever-becoming, emergent, future-forcing emphasis of Ravaisson and Deleuze, this operation of combined experience through habit charges or 'inhabits' the present (Pedwell, 2016).³ Whilst still sharing a process ontology this pragmatist approach opens up the present to more active, action-orientated intervention than Deleuze/Ravaisson-inspired geographical research in which habit is a 'passive synthesis' in a passing present.

A charged present offers the potential for a re-arrangement of habit environments and the possibilities of changing the mechanisms of habits through social reform. In the next section, I consider several aspects of this: education policy and the formation of habits; overcoming the clash of habits to enable collaborative mobilisation for welfare reform; the relationship between habits and institutions through institutional design and innovation for social reform; the role of habit in framing environmental policy. This captures the range of influences of habit: from their formation; conflict of established habits; the institutionalisation of habits; and habits as the background condition of wider problematisations, such as environmentalism.

Habit, situation and public policy

In this section, I consider two historical interventions in habit formation and the clash of habits from Dewey's own time (in which he was personally involved) before going on to discuss contemporary pragmatist-inspired analyses of the relationship between habits and institutional change and the role of habit in pragmatist environmental policy. In all these cases, the relationship between habits and problematisation are key.

A focus on the mechanisms of habit (and concern with over-mechanisation) relates strongly to the formation of habits, especially in the young. As a philosopher Dewey is probably best known for his work on education (1980; 2008a). He thought that education policy and practice could help cultivate more intelligent habits. He criticised the US schooling system for its chalk-and-talk approach to learning and its mechanised way of inculcating habits (in the form of social customs) into pupils, an approach that denied them their natural capacities as problem-solving organisms transacting with their environment. There was creative potential that could be encouraged in the young before their habits became too set. This is why Dewey put so much emphasis on education as a catalyst for social reform more widely.

For Dewey, the problem with the education system was that it embedded and reproduced certain traditional values, that at a broader, philosophical level, separated theory from practice, body from mind, culture from utility and the labouring from the leisure classes (Westbrook, 1991: 172–173). In 1894, he established the Laboratory School in Chicago to instigate his ideas of cooperative problem-solving education. In this approach, pupils' habits were challenged by problematic situations (introduced as part of the curriculum) through which their different habits and perspectives were brought to bear in order to solve,

in collaboration with other pupils (rather than as individuals). As we saw in the relationship between habit and enquiry, habits are also the first move in the formulation of problem-solutions. Thus in teaching children how to think it was important not to force 'a line of action contrary to natural inclinations' (Dewey, 1980: 41, see Westbrook, 1991: 172) but to incorporate 'present occupations' into the curriculum to use those dispositions in situations that best opened them up to other influences and inclinations, through cooperative enquiry. The school as a micro-social world allowed experimentation with forms of cooperative enquiry and problem solving that would usher in more established forms of knowledge (such as scientific knowledge). In re-orientating education away from mechanised habit to habit as fuel for creative and cooperative problem solving, the Dewey school had considerable success (Mayhew and Edwards, 1966).

As well as policy work on the formation of habits in children, the clash of already-established habits of adults can be both obstructive and productive for further social reform. The significance of habit in experiments in social reform was evident in the case of the 19th/20th century settlement house movement, in which middle-class philanthropists lived and worked in low-income neighbourhoods to try to facilitate different forms of welfare reform. This movement, inspired by Toynbee Hall in London, spread across cities of the US and formed a nascent welfare movement, some of the initiatives of which were later institutionalised by the US Federal State. One key catalyst of this movement was the Hull House settlement in a poor Italian-American neighbourhood in Chicago, run by Jane Addams, a pragmatist collaborator with Dewey (Dewey was on the Board of Trustees of Hull House).

In trying to establish collaboration between middle-class philanthropists and working-class residents, class and ethnic divisions were negotiated through the 'interspatialities' (Jackson, 2001) of Hull House, using different contexts of interaction to break down and reshape underlying, embodied habits. Dance classes, a range of sporting activities, drama and musical performance were all used as ways of easing the embodied encounter and developing trust and collaboration between Hull House and neighbourhood residents. Working on habit in this way helped provide the platform for stronger collaboration on wider social initiatives – over childcare, air pollution, neighbourhood laundry facilities and mutual savings schemes, to name but a few (Addams, 1968 [1919]).

As well the clash of habits producing the conditions for experimental social reform habit has also become the focus for more formal policy intervention. In a contemporary context, one prominent example is 'nudge' policy, which acknowledges the significance of habit in human behaviour, but uses various cues and incentives to 'nudge' habitual behaviour in a different direction (Thaler and Sunstein, 2008). From a pragmatist perspective Pedwell (2017) critiques nudge policy pointing to its overly individualised idea of habit and its narrow focus on certain acts or events that provide the opportunity for nudging 'bad' choices towards 'good' ones.⁴ In contrast Pedwell (2017) argues for a pragmatist approach which offers a deeper analysis of the environmental conditioning of habits and the understanding that they are dispositions or modes of behaviour that require much more broadly coordinated and collaborative policy responses. This sees interventions in societal/environmental rather than individual terms. In the same vein, Schwanen et al. (2012) looking at transport geographies see the wider environment of habit as crucial in changing patterns of behaviour, in this case encouraging less car use in the bid for low-carbon mobilities. Taking inspiration from Dewey's emphasis on changing the objective conditions of habit (rather relying on changes of thought or intention on the one hand, or nudging habits on the other) Schwanen et al. use his idea of custom as social habits to recommend that broader infra-structural change and a wide range of stakeholders (beyond individual car users) are

required to transition to non-car based mobility. They too look to the younger generation and education initiatives to encourage the formation of low-carbon mobility habits, pointing to societies where these customs are more developed (such as the cycling culture in the Netherlands).

The level of operation needed to deal with the distributed nature of habit, in combination with Dewey's idea that social habits congeal as customs and are institutionalised in various ways, means, I would argue, that institutional design is a particularly appropriate level of intervention in pragmatist policy-making. This accords with pragmatist-inspired economic thinking, which sees institutional forms of activity as being based on habits (Veblen, 2002 [1919]), what Gronow (2008) calls 'habitual institutionalism'. This challenges the utilitarian, individualist cost-benefit (rational-choice) approaches that dominate contemporary policy assessments and interventions. It also opposes behavioural economics, which does focus on the role of habit (such as in nudge policy), but in ways that are overly individualise habits, and are concerned with acts, rather than more continuous distributed modes of action, as Pedwell (2017) argued.

Pragmatist-inspired institutional and policy analysts explore various institutional design mechanisms that get us beyond rational-choice mechanisms of incentive compatibility between institutions and citizens, or behavioural architectures that seek to nudge towards good behaviour. They advocate institutional experimentation as a way of dealing with the effects of new types of interactions and entanglements on habits in human, non-human, object assemblages that produce new problematic situations.

Pragmatic analysis also suggests a second (higher)-order function of democratic input in the monitoring of the outcomes of different institutional choices that result from experimentation. This is also a way of structuring disagreement over different institutional choices, as well as dealing with the associated costs of institutional experimentation for different sections of the population (Knight and Johnson, 2011). Institutional experimentation and monitoring involves a range of deliberative forums, such as citizen's juries and public evaluation committees. This is what Archon Fung has called pragmatic equilibrium – where democratic agreement is achieved through the pragmatic testing of the consequences of different institutional forms and policy architectures. He contrasts pragmatic equilibrium to the famous 'reflective equilibrium' of Rawls's (1971) cognitive, rationalist approach to political disagreement and conflict in liberal, pluralist societies. What I argue here is that this pragmatic, experimental, *action-oriented* approach to institutional innovation explicitly engages, and productively acknowledges, the role of established habits and the clash of habits to a much greater extent than its cognitive, rational-choice equivalent. Fung outlines a series of initiatives that demonstrate this institutional experimentation, such as local, community-led institutional innovations to counter racist policing practices and over school reform in certain African-American neighbourhoods in Chicago (Fung, 2001), as well as the use of citizen's juries to decide new political institutional arrangements in the form of a new voting system in British Columbia, Canada (Fung, 2007; see also Wright and Fung, 2003).

Finally, (and briefly) beyond more immediate institutional concerns, habit can also provide the context for the widest possible level of problematisation and policy-framing. Environmental pragmatism has a distinctive approach to environmental ethics and policy in arguing against prominent (non-anthropological) arguments that place an intrinsic value on nature, separate from human interests (Light and Katz, 1996; Weston, 1985). Central to this is pragmatism's 'transactional realism' (Sleeper, 1986) that denies the separation of organism–environment in which, as I have discussed, habits (including human habits) and values are 'in' the environment, just as much as the environment is in habit. A plurality

of habits and values inhere in the environment, towards which a deliberative approach to environmental ethics must be addressed (rather than the more prominent unitary, all-encompassing approach) as part of more participatory, democratic process of environmental policy-making (Minteer, 2012; Norton, 1991).

Conclusion

A pragmatist approach to the role of habit as the intermediary in organism–environment relations has a number of aspects that recommend it for geographical analysis. First, like the current Deleuze or Ravaissou-inspired research the pragmatist idea of organism–environment transactions acknowledges a vital environment. Through its idea of experience as objective force it also recognises the continuity of human life with nature. However, by refusing to grant autonomous force to life (*élan vital*), it avoids the more transcendental aspects of vitalist approaches to habit (spirit for Ravaissou, an insistent materialism for Deleuze). This insistent empirical orientation of pragmatism suggests how habit, rather than simply being contraction of life force, is a mechanism of organisation of life forces with different levels of expression, some of which may be improvised or spontaneous (such as mechanisms underlying artistic expression) in the way that a vitalist approach suggests, but others of which might be (over) mechanised and persistent in ways that constrict life.

I think this gives scope to problematize the mechanisms of habit much more than its vitalist rendering in geography. Rather than creating dualisms between ‘habit memory’ and ‘habit proper’ (the latter resulting from life force) a pragmatist view sees habit as on a continuum of organisational forms that mediate natural forces (associated with different higher organisms; from mechanised to more expressive habits within organisms). This makes what is an emergent dispositional view of habit much more open to problematisation and intervention. Attention to mechanisms and levels of organisation starts to distinguish different environments of habit, which, for higher organisms, are extensive and complex. This gives scope for geographical analysis of environments of habit and tracing the relativities of space (treated as extensive situations or fields that such habits encompass). A pragmatist idea of habit also problematizes time, but rather than deflating the role of the present as Deleuze does (part of the wider 20th century critique of the metaphysics of presence), pragmatism uses a process ontology to understand the present as funded or ‘live’ and open to possibilities of intervention. In this present, habits are interrupted by problematic situations but are also the first point of their resolution.

As well as problematizing different mechanisms of habit (for the purposes of analysis and intervention) a Deweyan approach to habit also situates habit in relation to different forms of problematisation. Whereas vitalist approaches in geography see habits contracting immanent forces realised in ‘affective milieu’ (Dewsbury and Bissell, 2015) for pragmatists the partner of habit is problematisation, because, as life function, habit encounters frequent difficulties or objections. The affectual milieu of the vitalists corresponds to the situational qualities of affect in pragmatism but which, in the latter, are understood as the prompts of emerging problematic situations. This problematisation demands experimental action, involving habits and situational materials, and only more latterly, if at all, more reflexive forms of action in controlled enquiry in which ‘thought’ is a shared communicative activity. Analysing habit in relation to problematisation and enquiry again means exploring habits and their spatio-temporal relations – from extensive and enduring situations of habit dispositions to the sharper, more emphatic and more immediate problematic situations where habits are disrupted. Deleuzian-inspired geographical work has shown how human/non-human/material assemblages infuse ‘plastic habits’ (Dewsbury, 2015). Pragmatism

acknowledges this ‘thingliness’ of the world (Colebrook, 2015) whilst, at the same time, showing how these entanglements problematize human life through habit.

The possibilities of intervention in complex mechanisms of habit were suggested in the previous examples of policy strategies to address the formation, clash and institutionalisation of habits. Pragmatism recognises that habits are not just significant in terms of policy intervention but are also open to manipulation and domination in the ‘over-mechanisation’ of habit (between the labouring and leisure classes, for example). These issues bring pragmatism into productive conversation with the continuing influence of Marxism and Critical Theory on social and environmental critique in geography (Bridge, 2013). At the same time pragmatism recognises the difficulties of the Marxist prospectus precisely because it fails to address social habits that persist beyond revolutionary disruption.

A pragmatist approach to habit opens up research on persistent mechanisms of social domination with the more vital idea of habit environments in geography. Building on current geographical work that starts to take Bourdieu’s ideas on embodied habits beyond the social (Lea et al., 2015) a pragmatist approach combines a greater sensitivity to the complexes of actors (human, nonhuman, objects) implicated in habit milieu whilst maintaining a critique of mechanisms of habit that are persistent and significant in social relations. In this regard there is already a significant body of work within pragmatist philosophy and sociology on forms of social-environmental domination through habit, such as MacMullan (2009) on ‘habits of whiteness’ and Sullivan’s (2013) analysis of racism as a form of discrimination and domination that penetrates through the skin of the human organism producing ‘oppression in the gut’.

Pragmatism’s positioning of the relationship between habit and problematisation also opens up a wider terrain of investigation that draws on a strong strand of Foucault-inspired poststructuralist analysis in geography (Crampton and Elden, 1987; Murdoch, 2005). Foucault’s work looked at how different complexes of problematisation, for example the problematisation of population density and ideas of vulnerability to disease and contagion in the plague town in *Discipline and Punish* (Foucault, 1977), have been seen to coalesce into persistent (spatialised) forms of governmentality and surveillance, resulting in certain forms of subjectivity. Exploring the field of problematisation with a wider idea of the possible sites of problematisation, including, but also beyond, ‘governmental’ ones (see Barnett and Bridge, 2017; Koopman, 2011), and from the perspective of habit rather than subjectivity, further opens up the terrain of investigation on forms of social power (and the possibilities of resistance and democratic action). It also opens up other theoretical questions, such as the degree to which problematisations lead to new concepts (Deleuze – see Koopman, 2018) or to new actions (Dewey) as forms of critique of society and space.

Acknowledgements

I am very grateful to the editors and three anonymous referees for their extremely helpful comments on the paper. My thanks also to Mark Jayne for his very helpful comments on an earlier version of this paper. The errors are all my own.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Gary Bridge  <https://orcid.org/0000-0003-2156-4342>

Notes

1. In pursuing this argument, Deleuze and Guattari (1987) relinquish their naturalism for a more transcendent idea of the constant force of matter, 'forceful materialism' (Dewsbury and Bissell, 2015). Paul Patton (2016) has argued recently that Deleuze cannot be seen as a naturalist philosopher, relying as he does on certain transcendental ideals, such as the notion of 'absolute de-territorialisation'.
2. Here Dewey's social critique has connections to ideas of reification and alienation in Marxism (Bridge, 2013).
3. This orientation to a complex present reflects, I suggest, Dewey's wider suspicion of treatments of change as ever-becoming, in what he calls philosophies of flux, which actually reveal 'the intensity of feeling for the sure and the fixed' (1981b: 49). Philosophies of flux (in which he includes Bergson's ideas) '[defy] change by making it universal, regular, sure' (p. 49), yet another quest for certainty, rather than 'a call to effort, a challenge to investigation, a potential doom of disaster and death' (p. 49).
4. Its 'libertarian paternalism' is also a target of pragmatist critique – see also Jones et al. (2011).

References

- Addams J (1968 [1919]) *Twenty Years at Hull House*. New York: Macmillan.
- Barnett C and Bridge G (2017) The situations of urban inquiry: Thinking problematically about the city. *International Journal of Urban and Regional Research* 40(6): 1186–1204.
- Bennett J (2010) *Vibrant Matter: A Political Ecology of Things*. Durham: Duke University Press.
- Bennett T (2013) Habit: Time, freedom, governance. *Body & Society* 19(2/3): 107–135.
- Bennett T, Dodsworth F, Noble G, et al. (2013) Habit and habituation: Governance and the social. *Body & Society* 19(2/3): 3–29.
- Bergson H (2004 [1912]) *Matter and Memory*. New York: Dover.
- Bissell D (2013) Habit displaced: The disruption of skilful performance. *Geographical Research* 51(2): 120–129.
- Bissell D (2015) Virtual infrastructures of habit: The changing intensities of habit through gracefulness, restlessness and clumsiness. *Cultural Geographies* 22(1): 127–146.
- Bourdieu P (1977) *Outline of a Theory of Practice*. Trans. R Nice. Cambridge: Cambridge University Press.
- Bridge G (2005) *Reason in the City of Difference: Pragmatism, Communicative Action and Contemporary Urbanism*. London: Routledge.
- Bridge G (2013) On Marxism, pragmatism and critical urban studies. *International Journal of Urban and Regional Research* 38(5): 1644–1659.
- Carlisle C (2010) Between freedom and necessity: Felix Ravaisson on habit and the moral life. *Inquiry* 53(2): 123–145.
- Carlisle C (2013) Between freedom and necessity: Ravaisson on habit and the moral life. In: Sparrow T and Hutchinson A (eds) *A History of Habit*. New York: Lexington, pp. 13–176.
- Colebrook C (2015) *Pragmatic Finitudes*. In: Bowden S, Bignall S and Patton P (eds) *Deleuze and Pragmatism*. London: Routledge, pp. 252–268.
- Crampton JW and Elden S (eds) (1987) *Space, Knowledge and Power: Foucault and Geography*. London: Routledge.
- Crossley N (2001) *The Social Body: Habit, Identity and Desire*. London: Sage.
- DaLanda M (2016) *Assemblage Theory*. Edinburgh: Edinburgh University Press.
- Deleuze F (1991) *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*. Trans. CV Boudas. New York: Columbia University Press.

- Deleuze F (1995) *Difference and Repetition*. Trans. P Patton. New York: University of Colombia Press.
- Deleuze G and Guattari F (1987) *A Thousand Plateaus*. Minneapolis: University of Minnesota Press.
- Dewey J (1896) The reflex arc concept in psychology. *Psychological Review* 3: 357–370.
- Dewey J (1980) *The Middle Works, Volume 9:1916, Democracy and Education* (edited by JA Boydson). Carbondale: Southern Illinois University Press.
- Dewey J (1981a) *The Middle Works, Volume 14:1922, Human Nature and Conduct* (edited by JA Boydson). Carbondale: Southern Illinois University Press.
- Dewey J (1981b) *The Later Works, Volume 1:1925, Experience and Nature* (edited by JA Boydson). Carbondale: Southern Illinois University Press.
- Dewey J (1986) *The Later Works, Volume 12:1938: Logic: The Theory of Enquiry* (edited by JA Boydson). Carbondale: Southern Illinois University Press.
- Dewey J (2008a) *The Later Works, Volume 13:1938–39: Experience and Education, Freedom and Culture, Theory of Valuation, and Essays* (edited by JA Boydson). Carbondale: Southern Illinois University Press.
- Dewey J (2008b) *The Later Works, Volume 16:1949–52: Essays, Typescripts and Knowing and the Known* (edited by JA Boydson). Carbondale: Southern Illinois University Press.
- Dewey J (2012) *Unmodern and Modern Philosophy* (edited by P Deen). Carbondale: Southern Illinois University Press.
- Dewsbury J-D (2011) The Deleuze-Guattarian assemblage: Plastic habits. *Area* 43(2): 148–153.
- Dewsbury J-D (2015) Non-representational landscapes and the performative affective forces of habit: From ‘Live’ to ‘Blank’. *Cultural Geographies* 22(1): 29–47.
- Dewsbury J-D and Bissell D (2015) Habit geographies: The perilous zones in the life of the individual. *Cultural Geographies* 22(1): 21–28.
- Fesmire S (2015) *John Dewey*. New York: Routledge.
- Foucault M (1977) *Discipline and Punish: The Birth of the Prison*. New York: Pantheon.
- Fung A (2001) Accountable autonomy: Toward empowered participation in Chicago Schools and Policing. *Politics & Society* 29(1): 73–103.
- Fung A (2007) Democratic theory and political science: A pragmatic method of constructive engagement. *American Political Science Review* 101(3): 443–458.
- Gronow A (2008) Not by rules or choice alone: A pragmatist critique of institution theories in economics and sociology. *Journal of Institutional Economics* 4: 351–373.
- Grosz E (2013) Habit today: Ravaissou, Bergson, Deleuze and Us. *Body & Society* 19(2&3): 217–239.
- Hägerstrand T (1970) What about people in regional science? *Papers of the Regional Science Association* 24: 7–21.
- Harney L, McCurry J and Scott J (2016) Developing process pragmatism to underpin engaged research in human geography. *Progress in Human Geography* 40(3): 316–333.
- Hynes M and Sharpe S (2015) Habits, style and how to wear them lightly. *Cultural Geographies* 22(1): 67–83.
- Jackson S (2001) *Lines of Activity: Performance, Historiography and Hull House Domesticity*. Michigan: University of Michigan Press.
- Jones R, Pykett J and Whitehead M (2011) Governing temptation: Changing behaviour in an age of libertarian paternalism. *Progress in Human Geography* 35(4): 483–501.
- Knight J and Johnson J (2011) *The Priority of Democracy: Political Consequences of Pragmatism*. Princeton: Princeton University Press.
- Koopman C (2011) Genealogical pragmatism: How history matters for Foucault and Dewey. *Journal of the Philosophy of History* 5(3): 533–556.
- Koopman C (2018) Problematization in Foucault’s genealogy and Deleuze’s symptomatology, or how to study sexuality without invoking oppositions. *Angelaki* 23(2): 187–204.
- Lea J, Cadman L and Philo C (2015) Changing the habits of a lifetime? Mindfulness meditation and habitual geographies. *Cultural Geographies* 22(1): 449–465.

- Ley D and Samuels M (eds) (1978) *Humanistic Geography: Prospects and Problems*. New York: Croom Helm.
- Light A and Katz E (eds) (1996) *Environmental Pragmatism*. London: Routledge.
- MacMullan T (2009) *Habits of Whiteness: A Pragmatist Reconstruction*. Bloomington: Indiana University Press.
- Mayhew KC and Edwards AC (1966) *The Dewey School*. New York: Atherton Press.
- Minteer B (2012) *Refounding Environmental Ethics: Pragmatism, Principle and Practice*. Philadelphia: Temple University Press.
- Murdoch J (2005) *Post-Structuralist Geography: A Guide to Relational Space*. London: Sage.
- Norton B (1991) *Toward Unity among Environmentalists*. Oxford: OUP.
- O'Keefe B (2016) Deleuze on habit. *The Comparatist* 40: 71–93.
- Patton P (2016) Deleuze and naturalism. *International Journal of Philosophical Studies* 24(3): 348–364.
- Pedwell C (2016) Transforming habit: Revolution, routine and social change. *Cultural Studies* 31(1): 93–120.
- Pedwell C (2017) Habit and the politics of social change: A comparison of nudge theory and pragmatist philosophy. *Body & Society* 23(4): 59–94.
- Ravaissou F (2008 [1838]) *Of Habit*. London: Continuum.
- Rawls J (1971) *A Theory of Justice*. Cambridge: Harvard University Press.
- Sauer CO (1925) The morphology of landscape. *University of California Publications in Geography* 2(2): 19–53a.
- Schoenbach L (2004) “Peaceful and Exciting”: Habit, shock and Gertrude Stein’s pragmatic modernism. *Modernism/modernity* 11(2): 239–259.
- Schwanen T, Banister D and Anable J (2012) Rethinking habits and their role in behaviour change: The case of low-carbon mobility. *Journal of Transport Geography* 24: 522–532.
- Seamon D (1979) *A Geography of the Lifeworld: Movement, Rest, and Encounter*. London: Croom Helm.
- Sharpe S (2012) The aesthetic of urban movement: Habits, mobility, and resistance. *Geographical Research* 51(2): 166–172.
- Sleeper RW (1986) *The Necessity of Pragmatism: John Dewey’s Conception of Philosophy*. New Haven: Yale University Press.
- Smith DW (2013) Review of James Williams’s ‘Gilles Deleuze Philosophy of Time: A critical introduction and guide’. *Notre Dame Philosophical Reviews*, pp.1–8.
- Sullivan S (2001) *Living through and across Skins: Transactional Bodies, Pragmatism and Feminism*. Bloomington: Indiana University Press.
- Sullivan S (2013) Oppression in the gut: The biological dimensions of Deweyan habit. In: Sparrow T and Hutchinson A (eds) *A History of Habit*. New York: Lexington, pp. 255–274.
- Testa I (2017) Dewey, second nature, social criticism and the Hegelian heritage. *European Journal of Pragmatism and American Philosophy* 9(1): 1–23.
- Thaler R and Sunstein C (2008) *Nudge: Improving Decisions about Health, Wealth and Happiness*. New Haven: Yale University Press.
- Thrift N (2007) *Non-Representational Theory: Space, Politics, Affect*. London: Routledge.
- Tuan Y-F (1977) *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota Press.
- Veblen T (2002 [1919]) *The Place of Science in Modern Civilisation and Other Essays*. New Brunswick: Transaction Publishers.
- Vidal de la Blache P (1903) La géographie humaine: Ses rapports avec la géographie de la vie. *Revue de Synthèse Historique* 7: 219–240.
- Westbrook R (1991) *John Dewey and American Democracy*. Ithaca: Cornell University Press.
- Weston A (1985) Beyond intrinsic value: Pragmatism in environmental ethics. *Environmental Ethics* 7(4): 321–339.
- Wood N and Smith S (2008) Pragmatism and geography. *Geoforum (Themed Issue)* 39(4): 127–129.

Wright EO and Fung A (2003) *Deepening Democracy: Institutional Experiments in Empowered Participatory Governance*. London: Verso.

Gary Bridge is Professor of Human Geography at the School of Geography and Planning, Cardiff University. He was previously Professor of Urban Studies, University of Bristol. His previous publications include *Reason in the City of Difference: Pragmatism, Communicative Action and Contemporary Urbanism* (Routledge, 2005); *Mixed Communities: Gentrification by Stealth?* (with Butler and Lees, eds, Policy Press, 2011); *The Middle Classes in the City: A Study of Paris and London* (with Bacqué et al., Palgrave, 2014); *The Blackwell Companion to the City* and *Blackwell City Reader* (with Watson ed, 2000/2011; 2001/2012); *Gentrification in Global Context* (with Atkinson ed, Routledge, 2005).