



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

University of Wollongong
Research Online

Faculty of Law, Humanities and the Arts - Papers

Faculty of Law, Humanities and the Arts

2018

Author's Response: Enactivism, autonomy, self and other

Shaun Gallagher

University of Wollongong, University of Memphis, shaung@uow.edu.au

Publication Details

Gallagher, S. (2018). Author's Response: Enactivism, autonomy, self and other. *Constructivist Foundations*, 14 (1), 37-41.

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library:
research-pubs@uow.edu.au

Author's Response: Enactivism, autonomy, self and other

Abstract

The commentaries on my target article tend to be either supportive and expansive or corrective. I respond to these commentaries by focusing on issues that involve philosophical and scientific frameworks, concepts of autonomy, self, and social cognition broadly conceived.

Disciplines

Arts and Humanities | Law

Publication Details

Gallagher, S. (2018). Author's Response: Enactivism, autonomy, self and other. *Constructivist Foundations*, 14 (1), 37-41.

attention to the *vertical* subordination of the mind to the impersonal constraints that are the mark of the social (*top-down*). To me, the interactive approach should address the theoretical articulation of these different stances as well as the way they can be practically switched in situations. This would certainly help clarify the ambiguous nature of the second person, which oscillates between an *ontological* claim about the interactive nature of social phenomena, a *phenomenological* statement about the human mode of engaging with the world, and an *epistemological* contention about the explanatory power of interactions.

References

- Carassa A. & Colombetti M. (2009) Joint meaning. *Journal of Pragmatics* 41(9): 1837–1854.
- Dokic J. (2010) Affordances and the sense of joint agency. In: Balconi M. (ed.) *Neuro-psychology of the sense of agency*. Springer, Milan: 23–43.
- Gallagher S. & Crisafi A. (2009) Mental institutions. *Topoi* 28(1): 45–51.
- Gallagher S. & Varga S. (2014) Social constraints on the direct perception of emotions and intentions. *Topoi* 33(1): 185–199.
- Jackendoff R. (1999) The natural logic of rights and obligations. In: Jackendoff R. & Bloom P. (ed.) *Language, logic, and concepts: Essays in memory of John Macnamara*. MIT Press, Cambridge MA: 67–95.
- Kaufmann L. (2005) Self-in-a-vat: On John Searle's ontology of reasons for acting. *Philosophy of the Social Sciences* 35(4): 447–479.
- Kaufmann L. & Clément F. (2014) Wired for society: Cognizing pathways to society and culture. *Topoi* 33(2): 20–45.
- Mead G. H. (1967) *Mind, self and society*. University of Chicago, Chicago. Originally published in 1934.
- Searle J. (2001) *Rationality in action*. MIT Press, Cambridge MA.
- Simmel G. (1999) *Sociologie: Etudes sur les formes de la socialisation*. PUF, Paris. German original published in 1908.

Professor of sociology at the University of Lausanne and research associate at the Ecole des Hautes Etudes en Sciences Sociales (EHESS) de Paris, **Laurence Kaufmann** works in an interdisciplinary manner on topics such as public opinion, communication, first-person authority, social cognition and collective intentionality. Her main interests concern the ontology of social phenomena from a sociological and historical point of view – how institutions emerge and change over time – as well as from a philosophical and psychological perspective – what human abilities are necessary to constitute and maintain institutions. <http://www.unil.ch/unisciences/LaurenceKaufmann>

RECEIVED : 24 OCTOBER 2018

ACCEPTED : 29 OCTOBER 2018

Author's Response: Enactivism, Autonomy, Self and Other

Shaun Gallagher

University of Memphis, USA, and
University of Wollongong, Australia
s.gallagher/at/memphis.edu

> Abstract • The commentaries on my target article tend to be either supportive and expansive or corrective. I respond to these commentaries by focusing on issues that involve philosophical and scientific frameworks, concepts of autonomy, self, and social cognition broadly conceived.

« 1 » First, let me thank all of the commenters for their careful readings of my article and for their criticisms and suggestions. I take many of the comments to be either supportive, or corrective, or expansive of what I have argued in the target article. For example, I find very little to disagree with in **Étienne Bimbenet's** expansive comment in which he suggests that we all keep our heads even

as we emphasize the embodied and enactive roots of cognition. He is surely right that enactivists have to do a better job in explaining how basic perceptual and action-oriented processes translate into the more complex types of cognitive performance. Likewise **Mathieu Arminjon's** commentary suggests that we need to expand the enactivist account to consider not just cognition, but broader social-political themes. **Éma Demšar** and **Urban Kordeš** want to broaden the constructivist scope to include predictive processing in a way that is consistent with enactivism. **Hubert Wykretowicz**, in a more corrective mode, suggests that in regard to the notion of self, we need to adjust the focus so that we are able to characterize a richer phenomenology of the person. Both **Laurence Kaufmann** and **Ahmad Abu-Akel** propose to enrich the enactivist account of social cognition: **Abu-Akel** by constructing a hybrid that brings theoretical inference and simulation back into play, and **Kaufman** by emphasizing the importance of third-person processes in the social and institutional factors that constrain intersubjective interactions. Rather than responding to each commenter in turn, I will organize my response in terms of the issues or themes that the commentaries highlight.

Philosophical and scientific frameworks

« 2 » **Demšar & Kordeš** point out the affinity of enactivism, predictive processing (PP), and constructivism. In this regard, they affirm two principles: first, that knowledge of the world is actively constructed; and second, that the “function of cognitive systems is to adaptively guide behavior (rather than to veridically recover ‘reality’)” (§4). The first principle is consistent primarily with PP, especially in those versions of PP that emphasize ongoing construction of a generative model in a way that makes active inference serve prediction error minimization (e.g., Hohwy 2013), and the second one is primarily a principle of enactivism. Indeed, enactivism would treat that first principle as a corollary to the second one by reconceiving active inference as a form of pragmatic engagement. Enactivism would say (echoing a Marxist slogan): “The real point is not to construct the world but to engage with it.” Enactivism resists the type of description that one can find in some versions of PP – that the cognitive system is simply *sampling* or *testing* the environment in order to identify what is out there. Andy Clark, for example, suggests that active inference is

about “sampling the world in ways designed to test our hypotheses” (Clark 2016: 7, 290; also see the quotation of Clark in **Demšar & Kordeš** §3). He moves towards a more enactivist view (and the second constructionist principle) only when he adds that we sample the world “to yield better information for the control of action itself” (ibid).

« 3 » I am in agreement that some version of PP can be integrated with enactivism (**Demšar & Kordeš** cite the relevant literature in this regard, §19), specifically in regard to the kinship of the free-energy principle and autopoiesis (Bitbol & Gallagher 2018). As **Demšar & Kordeš** make clear, it is important to pick the right metaphors and the right vocabulary, or perhaps we should just say a productive metaphor and a vocabulary that does not mislead us. This is related to what **Demšar & Kordeš** refer to as Q1: “how would the traditionally neurocentric study of the brain – and more broadly, of the mind – go about incorporating perspectives that emphatically oppose the narrow neurocentric view?” (§13). The short answer is that it cannot, unless through some Hegelian dialectic where negation transforms to a positive (as Zaslavski 2018 argues in this issue). Short of that, we do need alternative vocabularies and an open-mindedness that allows for a rethinking of the mind and a new understanding of how the brain works. But I would also argue that Q1 is too general; the best we can do is look at specific areas and try to understand how brain, body, and environment work together to do what they do.

Agency and autonomy

« 4 » Both **Bimbenet** and **Arminjon** raise questions about agency and autonomy. **Bimbenet** characterizes my analysis as drawing a line between natural motor control processes and normative (social and linguistic) aspects of autonomy. **Kaufmann** makes a neat summary of this point (§2). I do claim, in response to the Libet experiments, that motor control should not be confused with free will, but I do not intend to draw a heavy line between these realms since I take motor capacities to be enabling conditions for autonomy, which precisely do not float freely in the air, but are tied to context. Accordingly, I agree with **Bimbenet**’s emphasis on the role of communicative and social practices for the constitution of autonomy, precisely un-

derstood as relational autonomy. He wants (and he wants me) to think more deeply and further about such things; at the same time he points to my own attempts to emphasize the “social thing” (§7; **Bimbenet** has quotation marks around that phrase but I do not know whether it is my phrase or his own). Indeed, we can look further along a number of different lines by considering conceptions such as the socially extended mind or what I have termed “mental institutions” (Gallagher 2013a), where examples such as legal institutions or the institutions of science (Slaby & Gallagher 2015) structure our complex cognitive accomplishments and our intersubjective interactions, and thereby add to or subtract from the autonomy of our actions.

« 5 » Furthermore, **Bimbenet**, in framing his more general challenge concerning more complex forms of cognition, and in mentioning that imitation, joint attention, artifacts and socially formed habits can also play roles in enabling or constraining autonomy, marks out areas where there already is ongoing work by embodied and enactive theorists. Lambros Malafouris’s (2013) material engagement theory (MET), for example, is just such an attempt to show how the material aspects of cultural practices have a profound effect on how we think and solve problems. Likewise, one can find ongoing research on learning, imitation and “natural pedagogy” (Csibra & Gergely 2009), as well as on the role of narrative in collective intentionality (Tollefsen & Gallagher 2017), all of which extend the enactivist analysis. Explaining complex forms of cognition is indeed an important challenge for enactivism but recent work on imagination, memory, problem solving, language, mathematical cognition and the idea of embodied rationality in authors such as Daniel Hutto and Erik Myin (2017), and Ezequiel Di Paolo, Elena Cuffari and Hanne de Jaegher (2018) suggest that enactivist approaches potentially have what it takes to work out explanations of more complex forms of cognition. In this respect, to answer **Bimbenet**’s question about whether I agree with Hubert Dreyfus’s demarcation between basic “mindless” performance and the “upper floor of linguistic and conceptual knowledge” (§2), I have been pursuing the idea that there is more continuity than discontinuity (Gallagher

2017: Ch. 10). Both disembodied cognition and decapitated cognition are myths.

« 6 » **Arminjon**, like **Bimbenet**, focuses on autonomy and agency, but suggests that enactivism needs to go beyond questions about cognition to address the social and political complexities that form the context of human life. He wants more detail about what he calls my “apartheid and slavery” hypothesis (which I mention in §27 of the target article). Elsewhere (Gallagher 2013b) I explain that the example comes from my daughter’s experience in the Peace Corps in South Africa. Working in a small village outside of Pretoria she was attempting to convince the villagers to help themselves by taking constructive action in the form of growing some of their own food. The response, as she reports it, was laughter. The villagers explained that what she proposed was impossible and that she simply did not understand. The reason, according to the villagers, was because they were lazy. Under the regime of apartheid this is what they had been told and had been raised to believe. Their internalization of that message, as part of their own self-consciousness, basically meant that they were robbed of their autonomy by the social-political structures that had been part of apartheid. As **Kaufmann** suggests, “Little by little, individuals make the status of responsible subject ascribed to them by others their own and adopt the social norms of reasonableness and accountability with regard to themselves” (§3) – yes, but only if others ascribe such norms, and for some populations it is all too “little by little.”

« 7 » **Arminjon** points to important work on “social epidemiology” as it relates to the African-American population in the United States. In this case the story is about the prevalence of arterial hypertension in a population that has been oppressed. Social structure that can rob a people of autonomy can also have profound bodily effects, as research by Nancy Krieger and Stephen Sidney (1996) demonstrates, and can shape not only a person’s self-consciousness, but non-conscious behaviors, or as **Arminjon** puts it, produces a “physiological *habitus*” that can limit agency (§§6f). As **Arminjon** points out, this is an extremely good example of how social and political forces relate to embodiment, beyond the narrow confines of

cognition. With respect to the physiological aspects of *habitus*, I can point to the recent work I cited in my article on the role of affect (broadly conceived to include hunger, fatigue, and other physiologically based processes that constitute the physiological *habitus*) in constraining cognition, behavior, and social interaction (e.g., Colombetti 2014 Bower & Gallagher 2013). With specific reference to how embodied-enactivist accounts can address social and political issues, Axel Honneth (2008) shows that an understanding of primary and secondary intersubjectivity has direct relevance to basic notions of autonomy, recognition, and justice,¹ and I suspect that Arminjon and I would be in general agreement about this.

A complicated phenomenology of the self and other

« 8 » Questions about agency and autonomy, as both Arminjon and Bimbenet are aware, are directly related to questions about self and our relations with others. With respect to the notion of self, Wykretowicz offers a critical perspective on the notion of self-pattern, concerned primarily about the phenomenological unity of the self. We agree that the self is not something that is reducible to neuronal patterns, but Wykretowicz worries about the unity of subjective life. He is right to suggest that for me the unity of self-experience is in some way tied to what I have called the minimal self (Gallagher & Zahavi 2012), or what I call here the minimal experiential aspect (or sometimes just the “experiential aspect”) of the self-pattern (Gallagher & Daly 2018). There is an ambiguity to this aspect insofar as in some respects it is both an *abstraction* (there is no such thing just on its own – it always involves a temporally extended context and is always related to other aspects of the self-pattern) and something that is very *concrete* (insofar as it is constituted by first-person perspectival and fully embodied proprioceptive/kinaesthetic experiences of ownership and agency). This experiential aspect is itself a pattern within a larger pattern, and I have characterized such a pattern as a dynamical gestalt. It is dynamical in the sense

that the dynamical relations that tie the different aspects of the self-pattern together constitute its unity. And it is a gestalt in the sense defined by Kurt Goldstein:

“Although the normal person’s behaviour is prevailingly concrete, this concreteness can be considered normal only as long as it is embedded in and codetermined by the abstract attitude. For instance, in the normal person both attitudes are always present in a definite figure-ground relation. (Goldstein & Scheerer 1964: 8)

« 9 » The various elements of the self-pattern are not, as Wykretowicz (§3) suggests, organized on different levels around a minimal core. As a dynamical gestalt the pattern is not characterized by different levels, but by an integration *via* dynamical relations (Gallagher & Daly 2018). In effect, the unity of the self just is the coherency of the pattern held together in its dynamical relations. Accordingly, I reject the metaphor of core and hinge, and I suggest that the notion of dynamical integration makes the question of phenomenology more complicated.

« 10 » The phenomenology of the self goes beyond the pre-reflective minimal experiential aspect since there are also reflective experiences, and variations of experience associated with affect, intersubjectivity, memory, narrative, etc. Although this is a complicated phenomenology, I agree with Wykretowicz that Husserl offers an important take on it. Furthermore, the notion of *habitus* can apply not just to the minimal experiential aspect, and not just to cognitive capacities, but to a significant number of elements in the self-pattern, including, as Wykretowicz (§9) suggests, affective and practical processes, dispositions, tendencies, and skills (§11). To be clear, once we jettison the metaphors of core and hinge, I can agree with most of the rest of Wykretowicz’s analysis and with the usefulness of the concept of *habitus*. Along with what Arminjon calls the “physiological *habitus*” we are bound to find a phenomenological *habitus*.

« 11 » More precisely, the *habitus* is both physiological and phenomenological, and always socially contextualized in ways that include relations between self and others. As Martin Heidegger (1962) might put it, *Das-*sein* is *Mitsein** all the way up and all the way down. That is the case even before a child

starts to conceive of other minds, or comes to the possibility of using theoretical inference or simulation to mindread. This is not to deny that we may learn to think about other minds in ways that lead us to situations in which, as Abu-Akel suggests (§2) appeal to some “explicit symbolic theory” or to a simulation process is possible. Abu-Akel favors the empirical rather than the innate versions of TT and ST and suggests that some hybrid version of these approaches comes close to (or perhaps may be integrated with) interaction theory. This kind of proposal certainly has been made to seem more feasible since the experiments showing that even 13-month-old infants (and perhaps even younger infants) are seemingly able to pass spontaneous false-belief tests (e.g., Baillargeon, Scott & Zijing 2010). It is not clear to me, however, that there is, as Abu-Akel suggests, “a shift from an indexical- to a symbolic-based world of mental state representation” that maps onto the shift from primary to secondary intersubjectivity (§3). Even within the framework of secondary intersubjectivity (which starts around 9–12 months with joint attention), when young infants seem capable of passing the spontaneous false-belief tests, it is not clear that we have a symbolic-based inference process that amounts to mindreading (Gallagher & Povinelli 2012). This is part of a much larger debate that I cannot hope to rehearse here, but at the very least we can note that Abu-Akel’s suggestion does not even align with his own research, which shows symbolic processing appearing only around five years of age, and certainly not as early as 13 months (Abu-Akel & Bailey 2001). In any case, this is a serious challenge for TT accounts.

« 12 » We should, of course, be clear about what the evidence shows. Abu-Akel cites Marc Jeannerod (1999) in regard to the claim that mirror neurons (MNs) make no distinction between self and other. This is part of the original MN doctrine, but the original data on MNs show that firing rates of these neurons are different for action mode (when I am acting) versus observation mode (when I am perceiving the actions of others). Jeannerod also points out that there are differential overlaps of neuronal patterns that allow for the self-other distinction (Georgieff & Jeannerod 1998).

1 | I discuss Honneth’s analysis in my forthcoming book, *Action and Interaction* (Oxford University Press).

In addition, there are temporal and connection differences: activation prior to action and integrated with efferent signals for my action, *versus* activation after action unaccompanied by efferent signals, for observed action. This is consistent with other empirical evidence against the matching hypothesis that is central to ST, that is, that MNs are activated in such a way that activation for observation necessarily matches activation for action (see e.g., Catmur, Walsh & Heyes 2007). Pierre Jacob's (2002) critique of the simulation idea that MNs are oriented toward the just-past observed action (attempting to match it) is consistent with the enactivist interpretation of MN activation, namely, that it is part of action preparation, oriented to one's future response to the other person's action. In any case, this is a challenge for ST.

« 13 » The studies of congenital heart disease cited by Abu-Akel are fascinating. As he suggests, the problems with third-person (symbolic) social interactions in such cases may be due to social-environmental and affective factors; this reinforces the idea that the *habitus* is integratively physiological, phenomenological, and social. This kind of integration is also relevant to the point that Kaufmann makes. Although one can clearly distinguish between first-person and third-person perspectives, it is not always clear that the second-person stance behaves itself in an orderly way. My interactive stance towards the other person is both a first-person and second-person stance at the same time. First-person since I experience the other from my unique perspective, and second-person in two senses. First, I am facing the other as an other (i.e., where, mutually, I am other to her, and she is other to me). This is described by Edmund Husserl (1964) as a *pairing* (*Paarung*), and by Maurice Merleau-Ponty (2012) as an intercorporeity. Second, this facing towards the other is already permeated by a normativity that is not initiated by either of us. We inherit or are born into a social milieu that starts to shape our experience from the very beginning. Which means that the first-person perspective is already second-person – my experience is already influenced by my social milieu – by the social institutions and cultural practices that contribute to what my world is, and how I perceive it. So, there is

a second-person face-to-face, and there is a second-person *a tergo*, something operating behind our backs that most often we are not aware of, and that sometimes, in the form of institutions, seems impersonal rather than second-personal.

« 14 » We can study all of this from a third-person perspective, which allows us to capture some of it. We can adopt a scientific view and ask, for example, what precisely are these social institutions and cultural practices doing to us (perhaps, “little by little”) and how do they shape our social interactions? This third-person perspective is made possible by a lot of second-person interactions, since science itself is a social institution that heavily relies on second-person interactions, and it too shapes our first-person experience to the extent that we are scientists, or are influenced in our thinking by science. I take this to be what Kaufmann means when she says, “the ontological seat of the first-person stance, once ‘decentered’ from the skull, is nothing but ‘second-person interactions’” (§1).

« 15 » Kaufmann raises a number of concerns. First, she is worried that I reject “the social” as a specific ontological domain (§4). What she means is that there is “a specific domain of reasoning dedicated to social entities” (§4), and apparently, I ignore this. This is a conception of the social domain that emphasizes “the early-developing deontic expectations” that configure social relations. It is correct that I do not address this in the target article, but that is due to of a lack of space more than a lack of interest. And even here I can only point to other places where I have discussed such issues (Gallagher 2013a; Gallagher & Miyahara 2012), but also in Gallagher and Anthony Crisafi (2009), which Kaufmann cites. My sense is that we are very much aligned on such issues.

« 16 » I strongly endorse Kaufmann's thinking about what she calls “deontic affordances.” Extending the concept of affordances to include social affordances (already a concept in Gibson) and cultural affordances (Ramstead, Veissière & Kirmayer 2016), has been a recent development for enactivist theorists (see, e.g., Rietveld & Kiverstein 2014; Gallagher 2018). Likewise, I agree with Kaufmann's discussion of “triadic configurations” and the “One-mode,”

and that they are not reducible to dyadic intersubjective interactions. At the same time, however, I reject the claim that such interactions are “practically irrelevant” (§6). Indeed, within the structures of impersonal institutions or “One-mode” phenomena, intersubjective interaction is sometimes the only thing we have from which to develop resistance, or at least to build resilience. I would say something similar for narratives, although I agree that they can do only part of the job. If narratives sometimes support the status quo, as Jürgen Habermas (1987, 131) suggests, they also have critical potential since they also allow us to reconfigure our way of thinking (Gallagher, forthcoming). Critical narratives allow us to see differently and to reconfigure the “we” (Tollefson & Gallagher 2017).

« 17 » There are, indeed, distorted intersubjective, second-person interactions. As Kaufmann suggests, these may be “closer to third-person distanciation and objectivation” (§7). To be able to say precisely how such socio-pathological relations work, and how we can fix them, we need to know precisely how intersubjective interaction works. Within the socio-political context, this type of project is being pursued by Honneth (2008), for example, in terms of the analysis of “recognition.” Whether or not Honneth gets this right (see Varga & Gallagher 2012), it is clearly a critical analysis that depends on understanding how intersubjective interaction works. That there are “semantic” (I would prefer the term “normative” in this context) dimensions that impinge on our everyday lifeworld is undeniable. Understanding how they work and how we can fix them is a shared goal.

References

- Abu-Akel A. & Bailey A. L. (2001) Indexical and symbolic referencing: What role do they play in children's success on theory of mind tasks? *Cognition* 80(3): 263–281.
- Baillargeon R., Scott R. M. & Zijing H. (2010) False-belief understanding in infants. *Trends in Cognitive Science* 14(3): 110–118.
- Bitbol M. & Gallagher S. (2018) Autopoiesis and the free energy principle. Comment on Ramsted, Badcock and Friston. *Physics of Life Review* 24: 24–26.
- <http://cepa.info/5407>

- Bower M. & Gallagher S. (2013) Bodily affectivity: Prenoetic elements in enactive perception. *Phenomenology and Mind* 2: 108–131.
- Catmur C., Walsh V. & Heyes C. (2007) Sensorimotor learning configures the human mirror system. *Current Biology* 17: 1527–1531.
- Clark A. (2016) *Surfing uncertainty: Prediction, action and the embodied mind*. Oxford University Press, Oxford.
- Colombetti G. (2014) *The feeling body: Affective science meets the enactive mind*. MIT Press, Cambridge MA.
- Csibra G. & Gergely G. (2009) Natural pedagogy. *Trends in Cognitive Sciences* 13: 148–53.
- Di Paolo E. A., Cuffari E. C. & De Jaegher H. (2018) Linguistic bodies: The continuity between life and language. MIT Press, Cambridge MA.
- Gallagher S. (2013a) The socially extended mind. *Cognitive Systems Research*. 25–26: 4–12. ► <http://cepa.info/2483>
- Gallagher S. (2013b) Ambiguity in the sense of agency. In: Clark A., Kiverstein J. & Vierkant T. (eds.) *Decomposing the will*. Oxford University Press, Oxford: 118–135.
- Gallagher S. (2017) *Enactivist interventions: Rethinking the mind*. Oxford University Press, Oxford.
- Gallagher S. (2018) The therapeutic reconstruction of affordances. *Res Philosophica* 95(4): 719–736.
- Gallagher S. & Crisafi A. (2009) Mental institutions. *Topoi* 28(1): 45–51.
- Gallagher S. & Daly A. (2018) Dynamical relations in the self-pattern. *Frontiers in Psychology* 9: 664.
- Gallagher S. & Miyahara K. (2012) Neo-pragmatism and enactive intentionality. In: Schulkin J. (ed.) *Action, perception and the brain*. Palgrave-Macmillan, Basingstoke UK: 117–146.
- Gallagher S. & Povinelli D. (2012) Enactive and behavioral abstraction accounts of social understanding in chimpanzees, infants, and adults. *Review of Philosophy and Psychology* 3(1): 145–169.
- Gallagher S. & Zahavi D. (2012) *The phenomenological mind*. Routledge, London. ► <http://cepa.info/4356>
- Georgieff N. & Jeannerod M. (1998) Beyond consciousness of external events: A “Who” system for consciousness of action and self-consciousness. *Consciousness and Cognition* 7: 465–477.
- Goldstein K. & Scheerer M. (1964) Abstract and concrete behavior: An experimental study with special tests. Northwestern University, Evanston IL. Reprint of *Psychological Monographs* 53(2), 1941.
- Habermas J. (1987) *The theory of communicative practice*. Volume 2. Translated by T. McCarthy. Beacon Press, Boston. German original published in 1981.
- Heidegger M. (1962) *Being and time*. Translated by J. Macquarrie and E. Robinson. Harper & Row, New York. German original published in 1927.
- Hohwy J. (2013) *The predictive mind*. Oxford University Press, Oxford.
- Honneth A. (2008) *Reification: A new look at an old idea*. Oxford University Press, Oxford.
- Husserl E. (1964) *Cartesian meditations*. Translated by D. Cairns. Kluwer Academic, London. French original published in 1931.
- Hutto D. D. & Myin E. (2017) *Evolving enactivism: Basic minds meet content*. MIT Press, Cambridge MA.
- Jacob P. (2002) The scope and limits of mental simulation. *Advances in Consciousness Research* 45: 87–110.
- Jeannerod M. (1999) The 25th Bartlett Lecture: To act or not to act: Perspectives on the representation of actions. *Quarterly Journal of Experimental Psychology A* 52(1): 1–29.
- Krieger N. & Sidney S. (1996) Racial discrimination and blood pressure: The CARDIA study of young black and white adults. *American Journal of Public Health* 86(10): 1370–1378.
- Malafouris L. (2013) *How things shape the mind*. MIT Press, Cambridge MA.
- Merleau-Ponty M. (2012) *Phenomenology of perception*. Translated by D. A. Landes. London: Routledge. French original published in 1945.
- Ramstead M. J., Veissière S. P. & Kirmayer L. J. (2016) Cultural affordances: Scaffolding local worlds through shared intentionality and regimes of attention. *Frontiers in Psychology* 7: 1090.
- Rietveld E. & Kiverstein J. (2014) A rich landscape of affordances. *Ecological Psychology* 26(4): 325–352.
- Slaby J. & Gallagher S. (2015) Critical neuroscience and the socially extended mind. *Theory, Culture & Society* 32(1): 33–59.
- Tollefsen D. & Gallagher S. (2017) We-narratives and the stability and depth of shared agency. *Philosophy of the Social Sciences* 47(2): 95–110.
- Varga S. & Gallagher S. (2012) Critical social philosophy, Honneth, and the role of primary intersubjectivity. *European Journal of Social Theory* 15(2): 243–260.
- Zaslowski N. (2018) Neurodialectics: A proposal for philosophy of cognitive and social sciences. *Constructivist Foundations* 14(1): 42–55. ► <http://constructivist.info/14/1/042> (this issue)

RECEIVED: 31 OCTOBER 2018
ACCEPTED: 8 NOVEMBER 2018