HUMAN AFFAIRS *25*, 110–120, 2015 DOI: 10.1515/humaff-2015-0009

RULE-FOLLOWING, MEANING CONSTITUTION, AND ENACTION

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Abstract: The paper submits a criticism of the standard formulation of Wittgenstein's rule-following paradox. According to the standard formulation, influenced by Kripke, the paradox invites us to consider what mental or behavioral items could constitute meaning. The author proposes instead an enactivist understanding of the paradox. On this account there is no essential gap between mental items and behavioral patterns such that the paradox enforces a choice between meaning being constituted either internally 'in mind,' or externally 'in behavior.' The paper begins with an introduction to the paradox and then presents arguments against standard solutions. It ends with the enactivist proposal, admitting that although much more needs to be said before it can be established as a full-fledged alternative, it nonetheless holds some promise both for revising our understanding of the paradox and for the formulation of a novel solution.

Keywords: Wittgenstein; rule-following; meaning; enaction; interaction.

The rule-following paradox (Wittgenstein, 1953) is arguably the most "radical" problem for modern philosophy (Kripke, 1982, p. 1), its "iconoclastic" consequences unmatched (Pettit, 2002, p. 31). Allegedly at stake are the foundations of mathematics (Wittgenstein, 1956), rules of logic, and meaningful language. The paradox has even been called an "antinomy of pure reason" (Boghossian, 2012, p. 47), and a modern "scandal of philosophy" (Peacocke, 2012, p. 66).

Here is the passage in which Wittgenstein formulates the paradox:

> This was our paradox: no course of action could be determined by a rule, because every course of action can be made out to accord with the rule. The answer was: if everything can be made out to accord with the rule, then it can also be made out to conflict with it. And so there would be neither accord nor conflict here (Wittgenstein, 1953, § 201).

The reasoning preceding the quoted section concerns language meaning. The question is: how can symbols have definite meanings such that in using one now I can (fail to) use it in accord with that meaning? Wittgenstein notices that token symbol uses initiate many paths for future use, which can be made out to accord or conflict with past uses. So, there is in principle an indefinite number of interpretations of symbols or words that are all within the set that can be made out to accord and conflict with past use. Hence, no interpretation of past

use can constitute a rule that singles out one definite meaning. Hence the paradox: while we use words in definite ways and do so quite successfully to communicate in everyday practice, there seems to be no rule we may rely on as a determiner of correct use.

Wittgenstein responds to these considerations in the second half of the quoted section:

> It can be seen that there is a misunderstanding here from the mere fact that in the course of our argument we give one interpretation after another; as if each one contended us at least for a moment, until we thought of yet another standing behind it. What this shows is that there is a way of grasping a rule which is *not* an *interpretation*, but which is exhibited in what we call "obeying the rule" and "going against it" in actual cases (Wittgenstein, 1953, § 201).

Perhaps, then, we might better understand what constitutes meaning by abandoning the idea that it is constituted by interpretation. We then avoid the problematic property of interpretations that they are themselves correct or incorrect with respect to what they interpret (Wittgenstein, 1953, § 198), according to a rule—a property that threatens to gear our investigations towards a regress of interpretations. The question then is: with what do we replace interpretations as constitutive of meaning? How are what we call 'obeying' and 'going against' the rule exhibited in actual cases? In the closing three lines of the quoted passage Wittgenstein makes an inference that might hold the clue:

> Hence there is an inclination to say: every action according to the rule is an interpretation. But we ought to restrict the term "interpretation" to the substitution of one expression of the rule for another (Wittgenstein, 1953, § 201).

It is the tendency to interpret 'interpretation' as a mental act that constitutes meaning that spells trouble. Thus Wittgenstein urges us to limit 'interpretation' to substitutions of one expression of rule. Rule-expressions include *doing* that which accords with or violates customs and practices established over time (Wittgenstein, 1953, §§ 199, 217, 219). Again, what is correct or incorrect with respect to custom behavior, linguistic or otherwise, ought not to be thought of as behavior that accords or conflicts with a mental act of interpretation, lest we fall back into the original dilemma. Rather we ought to think of 'obeying' and 'going against' practice and customs as 'exhibiting' actual case-by-case agreement on meaning.

But if being in accord with or in violation of a rule does not consist in an interpretation in the sense of mental acts that distinguish accord from conflict, then the question becomes: what makes the everyday engagement and exhibiting of a rule different and insulated from the worry that, really, there are no rules? Kripke (1982, pp. 86-87) holds that since no mental act or behavioral disposition could constitute rule-following we have to abandon the idea of a "straight" solution to the rule-following paradox. A straight solution would be one according to which there are necessary and sufficient conditions for saying that a behavior is a case of rule-following. Kripke presents the problem of rule-following as a choice between the Scylla of rule-following consisting in mental acts or intentions, on the one hand, and the Charybdis of rule-following consisting in behavioral dispositions on the other. He writes, concerning the addition function:

> if the sceptic is right, the concepts of meaning and of intending one function rather than another will make no sense. For the sceptic holds that no fact about my past history—nothing

> that was ever in my mind, or in my external behavior—establishes that I meant plus rather than quus … But if this is correct, there can of course be no fact about which function I meant, and if there can be no fact about which particular function I meant in the *past*, there can be none in the *present* either (Kripke, 1982, p. 13).

Abstracting from this particular example, we clearly see the two horns of a dilemma. The first is to suppose that something 'internal to mind' constitutes meaning. The other is to suppose that something in 'external behavior' constitutes meaning—presumably, 'external' in the sense of what is left of what I do when I have abstracted from my doings the intentions that premise the action. These two options are what Kripke calls "straight" solutions to the paradox. He rejects both in favor of a "skeptical" solution; one in which no *fact* constitutes rule-following (Kripke, 1982, pp. 86-87). In the following sections (1 and 2) I will face up to the two horns in order to expose any promise or further threat they may present. In the end I accept Kripke's rejection of both. But I do not accept that the rejection supports skepticism (sections 3 and 4).

My aim is to thread a third non-skeptical route. The third route is enactivist in spirit. It holds that behavior does not merely express-exhibit meaning but, in a sense to be specified, meaning is *co-constituted* by mental acts and embodied behavior of interpretation and representation of regularities of one's self and others, thereby giving rise to an *operationally closed* dynamic and *circular causal* pattern encompassing bodily and mental action that reciprocally affords future bodily and mental action, thus perpetuating a domain of meaning.

A caveat: the enactivist proposal is not, as presented in this piece, able to answer all the intricacies of meaning constitution. This piece submits a dilemma, presents why the suggested solution has not been found persuasive and suggests an alternative, non-skeptical understanding of the dilemma. As such it is concerned with theory development and not with defending an established paradigm. The reader is also advised that purely exegetical points are not made or intended. This is not a prescriptive account of how a text, in particular one by Wittgenstein, ought to be read. Objections that pertain to exegesis alone should therefore, unless relevant to the validity of the argument, be put aside for present purposes.

Dispositions—the first horn

A natural reaction to Wittgenstein's idea that 'just acting' expresses-exhibits a rule (Wittgenstein, 1953, §§ 217, 219) is to argue that behavioral *dispositions* constitute meaning. The false impression that rules determine meaning may then be refined through an identification of the patterns people are disposed to follow. These dispositions can be stated in generalized form *as if* rules. What constitutes following a rule is then one's being in accord with dispositions that constitute meaning. So we would have a natural reduction of rules to behavioral dispositions that in turn constitute meaning.

Varieties of dispositionalism (e.g., Pettit, 2002; cf. Millikan, 1990) have had their share of criticism in recent debate. On the face of it, dispositionalism might seem the most natural response to our dilemma, which is perhaps why Kripke (1982, pp. 22-32) devoted considerable space in an attempt to refute it. Today dispositionalism appears less attractive. In this section I present some arguments against dispositionalism.

Kripke pointed out that dispositions that subjects embody encounter the 'problem of finiteness' (*ibid*., p. 26). The problem is that past instances of practice coincide with indefinite ways of proceeding and none of them enjoy the privilege of being exclusively true to past practice. In multiplication, for example, the multiplicand may be too large for it to be possible for it to be read off from subjective dispositions about which product one is disposed to getting. In that sense, although one might *actually* be disposed to multiplying one way rather than another, dispositions cannot *constitute* the meaning of 'multiplication.' Subjects might be disposed to behaving in one particular way rather than another, even where there are in principle an infinite number of future instances. But that does not give us any reason to assume that a subject's dispositions will not change over time as he re-engages that practice, or that, when he engages it at any instant, that the dispositions operative at *that* instant determine the correctness of conditions for future engagement. Due to the finitude of subjective dispositions we are in the dark about whether dispositions can stay true to, or at any moment constitute, the meaning of a practice, not just at the present moment but over time as well (Kripke, 1982, p. 27; cf. Millikan, 1990, p. 327).

Another influential objection to a dispositionalist account of meaning constitution is that people are disposed to making *mistakes* (Kripke, 1982, pp. 28-32). If meaning is to be read-off from people's dispositions, then there is no reason in principle to deny, for instance, that 'multiplication' means something different in conditions of fatigue when people are disposed to getting 2 as the product from 7 and 9 or are disposed to clinching the person they mean to 'converse' with rather than 'wrestle'. It has been argued that meaning constituting dispositions should be identified as those, which, in the 'right' circumstances, pick out a definite meaning. The question then is: which circumstances are 'right'? It has been suggested that the 'right' conditions are those in which 'biological competences' operate without interference (Millikan, 1990), and as those that result in interpersonal and intrapersonal-intertemporal congruence in understandings of the meaning of a practice (Pettit, 1990).

I cannot, for lack of space, provide detailed criticism of proposals as to what the 'right' conditions are for dispositions to operate so as to constitute meaning—nor can I assess the many dispositionalist counterarguments (Soames, 1998; Horwich, 1998). But we may consider three reasons why disposition-firings, even in the 'right' circumstances, cannot be the meaning constituting facts we are looking for.

One problem is that idealizing conditions, the 'right' conditions, tends to *trivialize* matters. Suppose we could delimit the conditions that were right. We would be left with a trivial claim to the effect, for example, that Jones means *horse* by 'horse' if and only if Jones applies 'horse' to *horses* in the right conditions. For instance, if on dark nights Jones is disposed to mistaking horse-like cows in the distance for horses, 'horse' still means *horse* (rather than *horse or horse-like cow*) because Jones would apply 'horse' only to *horses* if the conditions were right. But, surely, if we could eliminate deceptive counterfactuals it is *trivially true* that Jones *would* apply 'horse' only to *horses*. This analysis does not avail us. We want an answer to the question of what fact constitutes 'horse' meaning *horse*, not *how Jones applies* the word 'horse.' The latter only answers the analytically secondary question: *given* that 'horse' means *horse*, under what conditions will Jones refer successfully? Saying that Jones is disposed to applying 'horse' only to *horses*, in the right conditions, tells us

nothing about what constitutes the meaning of 'horse' to begin with. Unless we know what makes conditions 'right' for dispositions to operate in them, not what people are disposed to doing when the conditions are 'right,' we cannot distinguish which of them are dispositions to making mistakes, and which constitute meaning.

It is tempting to avoid triviality by substantiating 'right' by employing a term δ, say, 'interpersonal convergence on meaning' (cf. Pettit, 1990). But in that case vacuity is traded for either circularity or regress (Boghossian, 2005, pp. 192-93). If the new definition of 'right' conditions does not involve normative terms, then it tells us nothing about why some conditions are 'right' and others are not, and so the initial challenge has not been tackled. On the other hand, if δ is normatively loaded, then we may ask what makes the conditions it denotes any more 'right' than other conditions. In principle it is an open question; if δ denotes something non-normative, are the δ-conditions *right*? No answer to this question can recast δ, without regress, in *non*-normative terms. But if δ denotes something normative, then it is an open question as to why we should accept it. A skeptic might disagree that *those* are the 'right' conditions. If, in response, one falls back on a non-normative notion of δ, the regress reappears. But if, instead, one responds by pointing to some further normative considerations by virtue of which δ-conditions are normatively 'right', then the skeptic will press for an argument as to why the new property thus picked out makes the conditions more 'right' than others. And this dispute can continue ad infinitum.

Now, dispositionalist accounts of meaning constituting facts encounter some serious problems. I am not suggesting that arguments against dispositionalism are conclusive. Only that, at the moment, dispositionalism faces obstacles that are too serious for it to be fruitful.

Intentions—the second horn

Another natural response to the rule-following paradox is to point out that the *interpretations*-regress that Wittgenstein encounters (Wittgenstein, 1953, §§ 201, 217) does not exhaust which mental acts could constitute meaning. This is the second horn of our dilemma.

An obvious candidate for meaning constituting mental acts is *intentions*. Intentions with general content, for instance, 'do A whenever conditions are C,' provide directives that quantify potentially infinite situations. In that sense an intention view may offer a stepping-stone to overcoming the problem that prior practice presents only a finitude of instances coinciding with in principle indefinite number of rules for future practice (Wright, 2001, pp. 125-26). We may say that meaning is constituted by the generalized content of intentions from which people engage in a practice. This, then, is how rule-following is possible: W means M in conditions C if and only if people in C intend to use W to mean M. Thus, if we recognize that conditions are of type C, and if we have an intention with the general content to W to mean M whenever C, then to W in C is to follow the rule for meaning M in C.

But a regress lurks here as well. The problem (cf. Boghossian, 2012) is that the subject will have to track the conditions, C, picked out by the generalized content of her intentions in order to identify what to do in a practice she is currently engaged in or about to engage in. If she intends to follow a rule of the form 'whenever C, do A!' she must believe that she is in C and infer 'do A!' The subject must infer that she is in a condition fitting the generalized content of her intention in order for her to behave according to the rule. But

now, the inference involved in this reasoning itself requires that she follows a rule—the rule of inference from 'if I am in C, I ought to do A!' and 'I am in C' to 'I ought to do A!' When the subject moves from the content of her intention via the premise that she is in C to the conclusion that she ought to do A, she is using a rule of inference in order to follow a rule! As Boghossian puts it:

> If on the Intention view, rule-following always requires inference; and if inference is itself always a form of rule-following, then the Intention view would look to be hopeless: under its terms, following a rule requires embarking upon a vicious regress in which we succeed in following no rule (2012, p. 41).

In order to avoid the regress one could dismiss the premise that inference is a matter of rule-following. We may leave this as an open possibility, but note that giving up the idea that inferences are instances of rule-following is radical indeed. The very idea that, from 'P' and 'if P then Q', concluding 'Q' is permitted, relies on the Modus Ponens rule. If there were no rule allowing this inference, many arguments, in philosophy or otherwise, would stand on shaky ground. If invoking intentions with general content was supposed to bridge the finitude problem, then it appears no more plausible than the idea that dispositions could bridge that gap.

Perhaps, though intentions could be interpreted as *substituting* rules, rather than *constituting* rules, as per Wittgenstein's suggestion above. Rather than intentions constituting something in addition, i.e., rules, which then constitute meaning, people intend to behave in definite ways and those intentions simply *are* what we call 'rules.' In that case, the intention view is not that people intend *to follow rules* but that *intentions* constitute meaning directly. Thus I may confidently say that '×' means *multiplication* because that is how I intend to use '×'.

However, if intentions constitute meaning, then whatever a subject *intends* the meaning of a practice to be will *be* its meaning. We take this route at the peril of collapsing the distinction between behaving in accord with the meaning of a practice, on the one hand, and intending to behave in accord with its meaning, on the other. Jones may intend to mean something by '×' that he didn't mean earlier. Insofar as intentions constitute meaning, though, there is no principled distinction to be made between Jones failing to mean a definite function by '×' and his deciding upon a new meaning that he *now* intends for it. Whatever he intends its meaning to be is its meaning (Wittgenstein, 1953, § 202). If he is wrong in the light of his earlier intentions, he may modify his intentions to get back on track—or, which amounts to the same thing, modify the meaning by modifying his intentions. But then, playing chess, for instance, and intending that what one is doing is playing chess amounts to the same thing—which is absurd. Determining what Jones is doing would be equivalent to determining what he intends to do. Jones may be throwing pebbles in a well intending this to mean 'checkmate' or 'touch down,' and on to the present proposal that would then be what his pebble throwing means.

There are, then, important obstacles at the second horn of the dilemma and, aside from details we cannot do justice to here, this is where the discussion stands. Some opt for the first horn, arguing that behavioral dispositions constitute meaning. Others opt for the second horn, arguing that intentional or other representational states constitute meaning. What remains to be said in defense of a non-skeptical approach to meaning constitution? I devote the final two sections to that question.

Inadequate constraints

Our question was: which facts constitute meaning (Cf. Boghossian, 1989, p. 515)? The rejection of both 'internalist' and 'externalist' options force our answer towards skepticism. I want to argue, on the contrary, that we are not bound to either horn or to skepticism. I will do so via an introduction to *enactivist* philosophy.[1]

A central idea of enactivism is that subjects do not construct detailed internal representation of an external world from which they infer or recover meaning that then informs action (Varela, Thompson, & Rosch, 1991, p. 149). Nor do subjects interpret past practices, in the narrow sense of taking such practices as input, which they process in order to derive meaning and to output behavior (*ibid.*, pp. 156-7). Meaning is neither external and recovered nor internal and projected.

The rejection of meaning as recovered from the external world does not, however, place enactivism on the second horn, on which meaning is constituted internally and then *projected* onto behavioral patterns. Meaning is understood rather as *enacted* (*ibid.*, pp. 149, 173). The verb 'to enact' signifies a temporally extended process of embodied and social interaction in which what subjects do, and the way the world is, co-specify a *relational* domain of viability (Thompson, 2007, p. 74). It isn't from the content of intentional or other representational states, on one side, or from mechanistically described behavior or environmental structures, on the other, that meaning is somehow projected or recovered. Instead, social and physical interactive processes are understood as driven by the dual force of internal and external dynamics that molds a relational domain "in between" the internal and external (De Jaegher & Froese, 2009, p. 447). Meaning consists in saliencies to think and act one way rather than another. These saliences are enacted as people interact with each other and their environments, and are ultimately grounded both in internal and external, biological and (social and physical) interactive processes. What we think of, interpret, or judge as *meaning* (what may appear as a *rule*) is the present state of such unfolding processes. Importantly, enaction of meaning involves the *co*-constitution of the unfolding of practice, involving both internal and external processes, neither of which is analytically primary but on a par.

From this point of view, the first two horns considered in the previous sections are avoided. But importantly, enactivism does not square well with skepticism. Enactivism suggests that we abandon the assumption that the two horns are mutually exclusive and exhaustive of alternative solutions to the rule-following paradox by urging us to not accept the either-or alternatives of internalism and externalism at the very beginning. If enactivism has anything going for it, then the question about constitution cannot be formulated on the assumption that we have already accepted that it raises two horns, represented by the 'either internal-mental or external-behavioral'-disjunction, or forces us towards skepticism. In order to assess the force of this third non-skeptical solution, much more needs to be said about enactivism.

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[1] Enactivism originated as a movement in the biology of cognition and the organisation of living (Maturana & Varela, 1980). Since its inception it has developed into one of the staunchest adversaries of the rules-and-representations model of mind and cognition (Varela, Thompson, & Rosch, 1991). It is known for its animosity to the supposedly Cartesian separation of mind and body (Thompson, 2007, pp. 226-30). I cannot give a full exposé of enactivism here and refer the reader to the works quoted.

Enacting meaning

Key concepts of enactivism are *autonomy* and *sense-making*. I introduce both here and then elaborate in more detail the enactivist understanding of meaning constitution introduced in the previous section.

Autonomy

Autonomy signifies the following property of agents: they are self-generating entities that through their biochemical processes and interactions with other autonomous agents and environments sustain an identity over time. Metabolism secures that living organisms' organization and structure is kept autonomous over time courtesy of being thermodynamically permeable but operationally closed systems. This allows intake of self-sustaining material that contributes energy to the organism, thus enabling it to *act* as an autonomous being with its own organization and structure. The continuity of autonomy achieved through this biological interactive process "establishes a *perspective* on the world with its own normativity, which is the counterpart of the agent being a center of *activity* in the world" (De Jaegher & Di Paolo, 2007, p. 488). This establishing of a perspective on the world is simultaneously a realization of a domain of *behavioral viability*, or *value*, relative to the organism's biological autonomy and the structure of its environment. Behavioral patterns become valuable as a function of their tendency to perpetuate autonomy in precarious conditions. Consequences of interactive processes "have significance or value … in relation to the processes of its [the agent's] identity generation" (De Jaegher & Froese, 2009, p. 447). That is, interaction becomes inherently having value and significance for autonomous agents that occupy a center of activity in the world, both affectively through experience of tensions between selfhood and alterity, as well as thermodynamically and biologically through the unfolding interaction's impingement on autonomy.

Sense-making

Sense-making is the process in which autonomous agents create and appreciate meaning as consequence of the establishment of value through interaction with others and environments:

> Exchanges with the environment are inherently significant for the cogniser and this is a definitional property of a cognitive system: the creation and appreciation of meaning or *sense-making* for short. … [S]ense-making is an inherently active concept. Organisms do not passively receive information from their environments, which they then translate into internal representations whose significant value is to be added later. Natural cognitive systems are simply not in the business of accessing their world in order to build accurate pictures of it. They actively participate in the generation of meaning in what matters to them; they enact a world (De Jaegher & Di Paolo, 2007, p. 488).

Enactivists reject "the traditional dichotomy between internal and external determinants of behaviour" (De Jaegher & Di Paolo, 2008, p. 2), replacing it with the idea that internal and external dynamics, biological viability and (social and physical) interaction, co-specify conditions in which meaning is enacted (*ibid.*).

Can we, from an enactivist perspective, avoid the 'either-or' dilemma about meaning constituting facts? We can, but at present it is a long shot. We may concede that no instruction or rule that I give myself, no generalized intentional content "engraved on my mind as on a slate" (Kripke, 1982, p. 15), constitutes meaning. Nor is it plausible that meaning is constituted by dispositions or something in the external world, for reasons considered earlier. But this is not a concession that *no fact* (*ibid*., p. 13) constitutes meaning. Skepticism follows only if an abstraction of mind from action is assumed as already accepted. From an enactivist perspective, the abstraction is non-mandatory. The enactivist proposal is to treat mind and autonomous action as *co*-constitutive of meaning, while engaging in practice *reciprocally* specifies paths for future autonomous sense-making. What people have in mind, and what they do (their linguistic, arithmetic, social and embodied action) are not separate domains, but are co-dependent in the enaction of a meaningful world in which agents emerge as *minded* beings; as beings having mental content. Internal biological and metabolic processes together with (social and physical) interaction *co*-constitute practices whose history and progression in turn establish *value* and *concern* for thinking and behaving one way rather than another. Therefore neither internalism nor externalism will be satisfying (Di Paolo, 2009). Neither internal nor external processes are, as such, sufficient for meaning constitution in abstraction from their mutual co-specification of dynamical enactive processes.

It will immediately be observed that there is an enormous gap to account for between the enaction of biological viability, at one end, and mathematical sophistication, at the other. I will return to this shortly.

But first, an important aspect of meaning enaction is that meaning is essentially dynamic. The mental and behavioral aspects of meaning constituting processes are susceptible to the dynamics of internal as well as external (social and physical) processes. Vice versa, the domain of viability for thinking in the world, enacted through the interdependent dynamics of internal and external processes, is in turn susceptible to modulation through the unfolding of those internal and external, biological and interactive (social and physical) processes. Thus the domain of meaning that autonomous sense-making organisms enact can itself be understood as operationally closed at a higher level of description. The enacted world is essentially an *interactive* domain *in between* agents and their environments (De Jaegher et al., 2010) that is *itself* operationally closed. The interactive domain of value and concern is higher-level in that it emerges from lower-level biological, embodied and affective dynamics of agents and environments. It is operationally closed in the sense that it exerts a "downward" causal force (Di Paolo et al., 2010; Lo Presti, 2013, pp. 11-12) on the unfolding of lower-level biological, metabolic and (social and physical) interactive processes. However, the sense-making that is thus being enacted is not *biologically* closed, since it encompasses multi-agent systems and their environments in interaction as well as their histories of interaction and sense-making. In this interactive process agents *co*-contribute to the enaction of a domain of value and concern but are equally susceptible to the causal feedback from that enacted domain. This two-level interdependence approach to meaning constitution renders off-track the idea that generalized rules or directions (in mind or behavior) constitute meaning. The meaning of future practice must be filtered through the dynamics of imminent interaction. Imminent interaction, though its dynamics are somewhat restricted by histories of

interactions and the values and concern previously enacted, involves an embodied-affective negotiation of here-and-now (physical and social) contingencies, and as such has a causal force which thrusts interaction dynamics along slightly, or radically, different trajectories. This causal process then molds the unfolding dynamics, again effectuating slight or more radical changes, or preservation of, future interaction dynamics. Constituting meaning becomes inherently *activistic*.

Wittgenstein's rejection of the metaphor that meaning is determined by a rule whose steps "have already been taken" and which "is to be followed through the whole of space" (Wittgenstein, 1953, § 219) appears to be right. On an enactivist construal, we may say that meaning is enacted in *taking steps* (in language use and calculation; in engagement). The steps that have already been taken specify a way of thinking and acting in the future. People do not engage practices as if they were novel, for each instance with an erased mental, behavioral, and interactive history. We engage practices whose antecedently enacted meaning *affords* ways of thinking, interpreting, perceiving, and interacting; practices are enacted as making sense relative to our concerns. In this process, the co-contribution of mental, behavioral, and (social and physical) interaction is the factual constitutive ground of meaning.

The outcome of this suggestion is an alternative to the either-or story reviewed earlier. What people do and think specifies a meaning that specifies a way for people to think and behave in the future (e.g. in language use or in doing mathematics). We are not, then, required to infer from prior instances what the meaning of a practice is to form a conclusion about what to do or say now or in the future. We *may* do so, but it does not *constitute* meaning. Neither is it necessary to have general instructions or rules 'in mind', or the 'right' dispositions. Meaning, and knowing how to proceed in accord with the meaning of a practice (Wittgenstein, 1953, §§ 151-54), is a question of mental content and behavior being fostered by, as well as fostering, engagement in day-to-day activities. Meaning constitution is activism.

Enactivism, in conclusion, provides one venue for criticizing the very formulation of the rule-following paradox. It suffices for my purposes if the criticism has initial plausibility. If it does, then we can conclude that the two horns and skepticism, developed over the last three decades or so, have, indeed, *blinded* us from a novel way of proceeding in our philosophical investigating on meaning. If, in addition, enactivism is promising, then formulating a fourth venue is within reach. One should expect that enactivism would have to withstand much criticism to emerge as a feasible alternative. Either way, it is no less significant a conclusion that at the moment we seem not to have properly understood our dilemma.[2]

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[2] This research was funded by the European Science Foundation's EUROCORES program EuroUnderstanding, and was carried out as part of the NormCon project. I would like to thank the members of that project for helping me develop the argument here presented.

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