

Introduction: Inferentialism on Naturalized Grounds

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Bob Brandom, the founding father of inferentialism (Brandom, 1994; 2007), views philosophy as orthogonal to science. Its business, he maintains, is not to tell us something about the world, but rather “to figure out ways to increase semantic and discursive self-consciousness” (Brandom, 2009, p. 128). Brandom thus thinks that the basic task of philosophy is to help equip us with concepts that foster our understanding of who we are and how we should live—not tell us facts about ourselves, our societies, and our world. Thus, inferentialism was not conceived to cooperate with science.

Naturalism, in contrast to inferentialism, is a much less focused doctrine. It has a wide variety of delimitations and definitions, from Quine’s (1969, p. 26) temperate “knowledge, mind, and meaning are part of the same world that they have to do with, and that they are to be studied in the same empirical spirit that animates natural science” to Alex Rosenberg’s (2013, p. 17) more outspoken “naturalism is the label for the thesis that the tools we should use in answering philosophical problems are the methods and findings of the mature sciences—from physics across to biology and increasingly neuroscience.”

In contrast to Brandom, Quine (1960, p. 3) endorses naturalism and concludes that “philosophy . . . as an effort to get clearer on things, is not to be distinguished in essential points of purpose and method from good and bad science.” According

to him, and according to many other naturalists, philosophy is at least continuous with science. The two enterprises are not orthogonal, for answering questions scientifically blends smoothly into doing so philosophically where scientifically respectable evidence ceases to be available.

The most basic question of the following collection of texts concerns the possibilities of a reconciliation of inferentialism with naturalism. The main ambition of this special issue is thus to explore the idea of building inferentialism on naturalized grounds, to instigate discussions on how inferentialism and naturalism could be reconciled, and to investigate the synergic effects this reconciliation could have.

Despite the fact that Brandom does not have the ambition to reveal novel *facts* about language or the world, he and his followers do tell us lots of things: about our language, about the games we play with it, about the rules that govern them, and about our social practices more generally. Should we not take them seriously? Should we see them merely as non-committal tales, providing fertile ground for the concepts that are the important resource? And what if we do take them more seriously than this?

True, Brandom does not pay much attention to the results of empirical science, even if they concern language, social norms, or other things that appear to be at the center of his attention. And true, far from everything he writes about such things is useful or accurate when construed as reports. But what we think is that his view on language and social practices suggests a useful reorientation of empirical research that may bring us not only new general insights, but also new specific findings.

What does such a reorientation require? It requires us, first and foremost, to see language not as a set of symbols or representations, but rather as a set of tools, which can be used in various ways. This alone is certainly far from being unprecedented. It is a view of language that is already owed to some of the classical pragmatists (Dewey), as well as to a number of neo-pragmatists (Quine, Rorty, Davidson, . . .), not to mention ordinary language philosophers (Austin, Searle, . . .). A very explicit articulation of this stance is given by Wittgenstein (1953, §11):

Think of the tools in a tool-box: there is a hammer, pliers, a saw, a screw-driver, a rule, a glue-pot, glue, nails and screws. The functions of words are as diverse as the functions of these objects. (And in both cases there are similarities.)

Moreover, it requires us to see language as a basically rule-governed enterprise. Language, from his viewpoint, is like chess or football: our language games take place “within” a dome of rules, which allows us to do what we cannot do without this shelter, namely communicate meaningfully. This, already, does not have so many precedents; but again Wittgenstein is one of them. Another one is Wilfrid Sellars: it is him who first stressed the role of specifically inferential rules for language (Sellars, 1953); and his treatment of rules was also less unwelcoming to naturalism than Brandom’s (Sellars, 1949; 1954).

However, if we want *this* to serve as an orientation for science we must know how to embed rules into the causal structure of the world, and this is notoriously difficult. And Brandom makes it no easier for us: for him the “realm of the normative” is self-encapsulated, with no back-end connecting it seamlessly to the “realm of the causal.”

There is, to be sure, a way of embedding the “realm of the normative” into the “realm of the causal,” which Brandom has no reason to oppose. Without reducing the former to the latter, we may use causal language to explain how “the normative” arose out of a rib of “the causal.” We can tell a scientifically respectable story of how norms came to be a part of our world, or how we humans came to move from the “realm of the causal” into the “realm of the normative.” However, the story still does not exist in a commonly accepted form.

As a matter of fact, Brandom’s views do resonate with some recent developments in science. Of course, it is not attractive for those who align themselves with representationalist approaches to language and cognition or for those who see language as merely a tool for the externalization of thought. But there are also approaches that see individual cognition as being formed by social structures, including language (which is thus more of an “institution” than an outgrowth of an individual mind).

A prominent case is the theory of Michael Tomasello and his collaborators (Tomasello, 2014, 2019; Schmidt & Tomasello, 2012; Rakoczy & Schmidt, 2013; Schmidt and Rakoczy, 2019; Köymen & Tomasello, 2020). Tomasello himself acknowledges the influence of Brandom’s mentor Wilfrid Sellars, as well as Brandom himself (Tomasello, 2014), and so do some of the other researchers in his camp (Schmidt and Rakoczy, 2019).

The teaching of these researchers is, in turn, exploited by a growing host of current philosophers developing the ideas of Sellars and Brandom (Peregrin, 2014; Koreň, 2021; Stovall, 2022). Tomasello and others stress the social origin of human thought, language, and reasoning and the importance of rules for human societies, while those he has influenced have already done a lot of work anatomizing the role of rules within human ontogeny. And the contributions assembled in this volume testify that this line of thinking has inspired many of those who are also inspired by inferentialism.

There are, to be sure, also discrepancies. Despite the fact that Tomasello emphasizes the social dimension of language and thought, his views were originally derived from the Gricean view of communication as a matter of “reading” the intentions of other speakers. In recent years, however, we can see a growing wave of criticism toward “intentionalism” (see, e.g., Bermudez, 2003; Geurts, 2019; Koreň, 2021) as the view seems to overintellectualize the processes that led to the evolution of language and the processes and abilities responsible for the acquisition of language by children. Thus, even though the resonance between inferentialism and the recent research in evolutionary and developmental psychology

focusing on normativity and reasoning seems relatively strong, there are still a lot of issues to be settled.

In the first paper of the issue, *Norms, Reasons and Anthropological Naturalism*, Hans-Johann Glock identifies potential conflicts between inferentialism and naturalism. He concentrates on two of them. The first one is the general problem of normativity and its place within the natural order. Here Glock thinks that inferentialism can be reconciled with naturalism, especially if we construe normativity in a way that he calls “minimal.” In the case of the other conflict, it is, according to Glock, inferentialism that should give way. The conflict, Glock insists, is caused by the fact that inferentialism, at least of the Brandomian variety, stipulates an unbridgeable gap between us humans (whose life has “unique social, linguistic and cultural dimensions”) and other animals. Against this, Glock urges what he calls “anthropological naturalism,” based on the conviction that “the capacity for language, norms, culture, etc. is part of a specifically human yet nonetheless completely natural and unmysterious form of life.”

The next paper, Jaroslav Peregrin’s *Inferentialism Naturalized*, can be seen as a contribution to the “anthropological naturalism” of Glock: it sketches the possible route from emitting sounds in reaction to other sounds to the rules of language, especially the “game of giving and asking for reasons,” which Brandom calls the “downtown” of language. His ambition is to show that along the route to the establishment of the inferential structures of languages, as we know them from natural languages in their current form, we do not encounter any unbridgeable gap. These structures, Peregrin maintains, emerge smoothly from the rule-less use of sounds once the speakers are able to assume normative attitudes and once they assume them in a coordinated way.

The ambitions of the next paper, Bernhard Weiss’ *From Tools to Rules: The Evolution of Rule Following*, are not very different. The author only suggests that the road to the rules of language is more tortuous than suggested by Peregrin. His idea is that the normative practices that lay the foundations of language must have emerged from an already-existing simple practice of monitoring through a more complicated stage of policing. In particular, Weiss argues that this transition towards normative practices happened in the context of toolmaking and an active transmission of technology in which the complexity and difficulty of the tasks led to the evolution of more complex teaching/policing practices.

In *Tracking the World Down: How Inferentialism Accounts for Objective Truth*, Maria J. Frápolli suggests that the tools of inferentialism should be augmented by some of those provided by developmental and especially ecological psychology. The reason is that the most stubborn enemy of inferentialism, Cartesianism, will not go away until we embrace a conceptual framework that lets us see that there is no opposition between us and the world, that “we are the world.” Frápolli argues that Brandom’s view of language as something inherently social finds support in evolutionary psychology to the extent to which this foregrounds our human incli-

nation towards ultrasociality. At the same time, however, the author reminds us that intentionality actually presupposes a complex social setting (rather than vice versa). Without the complex social setting, it is problematic to see how the notions of objective truth and knowledge could have emerged and without these notions it does not make much sense to talk about intentionality.

In the paper *On the Natural Ground of Discursive Cognition: Building a Heterodox Explanatory Bridge Between Philosophy and the Cognitive Sciences*, Preston Stovall confronts Brandomian inferentialism with recent ideas concerning collective intentionality, especially the variety of Margaret Gilbert. He proposes enriching the conceptual apparatus of both by his own distinction between what he calls *single-minded* and *indifferent* choice, which, according to him, could constitute a novel conceptual framework for capturing and explicating deontic phenomena. He concludes that “insofar as discursive cognition is autonomous responsiveness to the normative force of reason, this model of deontic cognition as a kind of single-minded practical agency might help bridge the philosophical and the scientific study of human cognition *qua* discursive.”

The gap between us humans and the rest of nature appears not only when we are not able to embed specific human feats, such as norms, reason, and language, into the evolution of nature, but also when we seemingly do so, but our exposition turns out to be circular—when it covertly presupposes the same capability that it is conceived to explain. According to the inferentialists, this is the case of maybe the most widespread exposition of the workings of language, namely the one based on the teaching of H. Paul Grice. And it is precisely the circularity of this approach that is criticized by the paper *Getting Ready to Share Commitments* by Antonio Scarafone and John Michael. As the authors argue, the currently predominant Gricean approach faces several challenges, leading to “conflating communication with the cognition of communicators.” The authors concentrate especially on ostension and the data they present make it clear that a straightforwardly Gricean approach is implausible. On the constructive side of their proposal they argue that “if prelinguistic communication is conceptualized in terms of shared commitments . . . the empirical findings can receive a more straightforward interpretation.”

In the seventh paper, *Grounds of Sematic Normativity*, Diego Marconi develops an original version of the thesis that meaning is use. He concentrates on the nature of meaning and of semantic norms. The author argues that although meaning is not identical with use, it is mostly grounded in use. He rejects regularism and argues that meanings must be grounded in *genuine* norms, which constitute a specific normative structure—a “hyper-conformist” social system. Hyper-conformist systems are social structures in which customs that are widespread enough are adopted, maintained, and demanded as strict rules, while those that are not widespread enough are abandoned. This specificity of language and communication then explains how normativity penetrates meaning despite the fact that meaning is based on mere customary practices and use is “just a bunch of facts” about the regularities of behavior. Even though Marconi does not look at language through the

optics of evolutionary or developmental psychology, his view is congruent with the previous papers in seeing normativity as the definitional feature of language and language-related practices.

A novel and original proposal for naturalizing inferentialism can be found in Ulf Hlobil's *Teleo-inferentialism*. The general idea of the paper is to connect inferentialism with teleosemantics in such a way that the normativity of inferential rules could be explained by the biological well-functioning of organisms and their capacities. In particular, Hlobil sees the capacities to make particular inferences as being dependent on a general capacity to learn inferential capacities (to learn which particular inferential moves are correct and which are not). The paper aims to open up a new line of research on inferentialism by foregrounding the question of how the capacity to learn inferential capacities works, with possible important consequences for the inferentialist view of language acquisition.

Rather than showing how research in evolutionary psychology could shape inferentialism, Ladislav Koreň, in *Evolution of Reason Giving and Confirmation Bias: What Has Been Explained?*, shows how some insights that inferentialism provides us with could shape evolutionary psychology. The main question discussed is whether we can see biases (and the confirmation bias, in particular) as design features of current interactionist approaches to reasoning. The upshot of the paper is that, provided that one accepts the social/interpersonal functions of reasoning (which is typical of interactionist approaches) and the social dimension of the practices of reasoning (which is typical of inferentialism), biases which distort individual thinking do not seem to present productive forces towards reaching the functions identified by interactionists.

In *Wilfrid Sellars on Science and the Mind*, Anke Breunig relies on some insights provided by the forefather of inferentialism, Wilfrid Sellars, in discussing the problem of finding the place of the mind in nature. The author points out that from the Sellarsian viewpoint, "when framed correctly the mind-body-problem must be seen to result from an encounter of [manifest and the scientific image of man-in-the-world]." What is more substantial is that placing normativity within a naturalistic picture of the world is not a problem only for the social sciences and humanities, for, as the author argues, Sellars saw the problem as already arising in biology. It follows, then, that "to recognize that biology cannot be reduced to physics should make it easier for the naturalist to accept that psychology cannot be reduced to biology either."

Scientific Representation: An Inferentialist-Expressivist Manifesto, written by Kareem Khalifa, Jared Millson, and Mark Risjord, represents yet another attempt to use some of the insights provided by inferentialism and apply them outside of its initial context. In the paper, the authors present a novel inferentialist-expressivist view of scientific representation and show how the view can explain the relation between target systems and their scientific models without presupposing a representational dimension of their relation. The main idea of the view is that the relation between a model and a target system can be explained in terms of the ability

of the model to produce answers to questions about the target system and the representational dimension of their relation is then understood as a consequence of the fact that the model provides these answers.

In *Family Feuds? Relativism, Expressivism, and Disagreements about Disagreement*, Huw Price claims that many central concerns of naturalism acquire the shape of ‘placement problems’: they revolve around phenomena that seem to be hard to ‘place’ within the naturalistically conceived world (such as morality, modality, meaning, . . .). One way to deal with them is to accept the expressivist view that such phenomena are not independent of our grasp on them—“in some sense, they reflect our own perspective, rather than any entirely objective aspect of the world.” In the light of this, Price compares his own view of linguistic disagreements with MacFarlane’s view of the same topic as two different moves in the same direction of expressivism.

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