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Going Global: Carnap's Voluntarism and Price's Expressivism

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ABSTRACT

Huw Price has sketched a program for a globalized expressivism in support of which he has repeatedly invoked Rudolf Carnap (and what he calls "the Carnap thesis"). This paper argues that this is entirely appropriate, as Carnap had something quite similar in mind. However, it also argues that Price's recent attempts to integrate Robert Brandom's inferentialism to this program are less successful, and that a more empirically-oriented descriptive pragmatics along Carnapian lines would be a better fit with his original program than Brandom's explicitly hermeneutical agenda.

Logical empiricism is still, despite the revisionary research of the past decades, seen as a movement that, far from trying to find a place for what Huw Price (1997) calls the "M-worlds" (by which he means the realms of morality, mathematics, modality, and meaning), tried rather to eliminate them (except perhaps in some desiccated ghostly form) and convince us we could do without. And yes, some of the rhetoric of the 1920s is hard to interpret any other way. Allowance must be made, of course, for the Central European political and intellectual context of the 1920s, in which it was not the M-Worlds, but the S-world (the "scientific world picture") that was on the defensive. But the Vienna Circle's overcompensation toward the scientific would come back to haunt it once that context was forgotten (or had been missed altogether, as in America). From about the mid-twentieth century it began to look very much as if logical empiricism, and not the M-worlds, had landed in the dustbin of history. When a rediscovery set in during the 1980s and 90s, it enabled us to strip away the crude rhetoric and focus more on the substance.

Carnap in particular has been the subject of extensive research, which has revealed not only a previously unsuspected degree of unity among the disparate projects he embarked on over his lifetime, but also a deeper coherence among his conceptions of logic, language, mathematics, induction, and values than readily meets the eye.[1] Not all interpreters agree about all aspects of the emerging picture, but in one version of this "Carnapian rationality" (Carus 2016), at least, it bears a certain resemblance to a position most recently called "global expressivism" that has been

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sketched by Huw Price over the past thirty years. That resemblance is the subject of the present paper.

This resemblance is of particular interest because Price's path to this view neither originated with Carnap nor even was influenced by Carnap to any significant degree until the project was well under way and had been fully articulated. But then Price (1997) incorporated what he calls "the Carnap Thesis" into his exposition as an integral component. And while this represented a shift in argumentative strategy, it is remarkable that Price hardly had to change his overall position at all to accommodate this rehab of the underpinnings. Price's (2013) most recent articulation of his position has not left this rehab behind or replaced it by yet another one, but this raises obvious questions about the compatibility between certain "expressivist" components of the "global expressivism" Price has been emphasizing lately and the underlying argument since 1998.

First we look at Price's own characterization of what he calls the Carnap Thesis, in section 1, and place it in the larger context of Carnap's thought. Section 2 continues the characterization of Carnap's position with a discussion of Carnapian pragmatics and its place in Carnap's later program of explication, highlighting the "functionalism" shared by Carnap's and Price's views. Section 3 compares the Carnap portrayed in sections 1 and 2 with Brandom's very different brand of explication, to which Price has recently been attracted as a way of filling out his 1988 sketch of the function of truth and assertion. Section 4 considers Carnap's global "voluntarism" (as Richard Jeffrey has called it) in comparison to Price's global expressivism, and tries briefly to locate their points of contact and their differences of emphasis. Finally, the prospects for a more empirical and Carnapian approach to what Price finds in Brandom are explored.

1. THE CARNAP THESIS

Price argues that what he calls the "placement problems" (Price 2004a, 187–89; 2013, 5–8) that take up so much room in analytic philosophy of the past half-century evaporate when the Carnap Thesis is applied to them. Placement problems are questions about how to find a place for parts of our mental lives that do not seem to fit into the naturalistic picture of the world conveyed by science—values, mathematics, meaning, and so on. "How are we to locate topics of these kinds within a naturalistic framework?" he asks; ". . . we seem to be faced with a choice between forcing the topic concerned into a category which . . . seems ill shaped to contain it, or regarding it as at best second-rate—not a genuine area of fact or knowledge."

> One way to escape this dilemma is to reject the naturalism that produces it. If genuine knowledge need not be scientific knowledge, genuine facts not scientific facts, there is no need to try to squeeze the problem cases into naturalistic clothing. Thus, placement problems provide the motivation for much contemporary opposition to naturalism in philosophy. (2013, 6–7)

But, says Price, rejecting naturalism altogether is an overreaction to this predicament. The problem is not with naturalism itself (the mere acceptance of natural science as

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a constraint on more general—e.g., philosophical—thought), he says, but with the particular form of *ontological* naturalism that has been widely taken for granted ever since the Enlightenment. The bare constraint of science need not dictate our ontology, as so many philosophers from d'Holbach to Quine have required. Here, of course, is where Carnap comes in—to undermine the ontological naturalism ("object naturalism," as Price calls it) that raises all the placement problems. Carnap (or rather, the "Carnap Thesis") has the advantage that he (or it) undermines just enough and not too much, for Price's purposes. For Price's Carnapian demolition job still leaves room for a more modest "subject naturalism"—one that takes the constraint of science to require only (apart from deference to empirical findings in cases of conflict) that we ourselves, as centers of conscious awareness located and embedded in a physical embodiment, be regarded as part of the nature that science seeks to understand. Science gives us no grounds for supposing that we are somehow extranatural, or supernatural.

Price's Carnap Thesis amounts essentially to "Empiricism, Semantics, and Ontology" (Carnap 1950a, henceforth ESO), then, with its well-known distinction between internal and external questions of existence, the latter possessing any discernable content only if rephrased as proposals in favor of a particular language framework (or of a particular explication of a vague, informal concept). So "are there infinite numbers?"—a typical external question—has no meaning, for Carnap, unless we rephrase it as "is it useful or preferable (for some specified purpose, or for a general-purpose mathematics aiding conceptual exploration) to employ a language that allows infinite numbers (such as ZFC, with its Axiom of Infinity)?"

Carnap's ideal of *explication*, accordingly (Carnap 1950b, §§1–6), does not rely on pre-existing meanings in vague or unclear ordinary usage. These are, it is true, to be surveyed in an initial step of "clarifying the explicandum," in which those undertaking an explication try to make clear to each other, by informal explanations and perhaps by surveying existing uses of the expression in question, what they and others mean by it. But the next step, the actual step of explication is, in Carnap's view, *not* bound by those findings. The goal, rather, is to *replace* the explicandum by something better and more useful for the purpose specified in the clarification step. It is desirable, in Carnap's view, that the explicatum fulfill the *function(s)* of the explicandum in the respects that are of interest in the context of the clarificatory discussion within some (research) community. But this is not essential. It may turn out, for instance, that an explicandum had two or more *different* and incompatible kinds of usage in its traditional, informal setting, and the process of clarification, in bringing this to light, may focus on only one of those usages in preparation for replacement by an explicatum.[2] Or it may even turn out that entirely new concepts emerge that have *no* explicandum, no informal predecessors in prescientific informal languages.

The Carnap Thesis is superbly effective, in Price's hands, at its assigned task of bringing down "object naturalism" but leaving room for "subject naturalism." Of course this was not Carnap's own task or objective, nor did he seem to be remotely preoccupied by "placement problems." On the contrary, he had begun his philosophical career, in the heyday of the 1920s Vienna Circle, as a kind of textbook "object naturalist"—or so it has seemed. His personal tastes tended to the austere, calm, and

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level-headed; as a schoolboy he had read the works of Haeckel and Ostwald, and self-consciously taken their side in discussions with classmates (Carus 2007, Ch. 2, 65ff.). And in later years he allowed that he himself was happy to accept the ordinary "thing-language" for everyday purposes, and gave no obvious signs of any tendency to avail himself of the extravagant freedom his principle of tolerance had licensed. So it is hardly surprising that others didn't exploit this freedom or even really take it very seriously. The principle of tolerance, first enunciated in a reply to Neurath in the context of the Vienna Circle's convoluted *Protokollsatzdebatte* and then buried in the *Logical Syntax*, an otherwise forbiddingly technical treatise, has to qualify as one of the best-disguised philosophical revolutions ever. Carnap's contemporaries can be forgiven for failing to see (despite Carnap's own avowals) what a fundamental break it made with his previous view—at least as radical a discontinuity, we can now see, as that between the *Tractatus* and the later Wittgenstein. They were perhaps so taken in by Carnap the person that they didn't feel the need to read what he had written very closely.[3] Hilary Putnam, for instance, was convinced that the principle of tolerance was just a way of rephrasing the verification principle.[4] And Wesley Salmon (1994, 285) thought Carnap must have been bluffing; all the talk of tolerance and pluralism seemed to him a transparent cloak for a somewhat occluded but ultimately straightforward realism.

But Carnap was *not* bluffing. The principle of tolerance *was* actually for real, and went very deep.[5] Those who have recognized this, however, have also tended to diagnose an aporia or dead end or, perhaps, an ultimate irrationality in it. Carnap's conception of reason, it is held, requires any assertion to be relative to a linguistic framework. Therefore there can be no rational assertion, no "judgment," *outside* any linguistic framework, such as a metajudgment bearing on the choice *among* frameworks. Any choice among frameworks (or more locally among explications for a given explicandum) must therefore take place *outside* any rational framework. So the choice among frameworks can't itself be rational.[6]

Another form of this same complaint is to see an infinite regress in Carnap's insistence that no choice among frameworks or explications can be arrived at *within* one of the frameworks to be chosen among. Such a choice must, according to Carnap, be *external* to (and be articulated externally to) any of those frameworks. But this seems (Steinberger 2014) to leave Carnap with two choices: *Either* the choice among frameworks is arbitrary and irrational *or* there must be an explicitly specified "selection framework" at the metalevel in which the choice among frameworks can—rationally—be made. But which metaframework should this be? How to choose rationally among metaframeworks without retreating to a meta-metaframework, and so on? Where does the regress stop?

A different perspective on this conundrum was suggested by Stein (1992), who first pointed out the *dialectical* character of the interplay of theoretical and practical in Carnap's later thought—a mutual feedback relation between formal media of reasoning, on the one hand, and the less regimented languages in which practical decisions are framed, on the other. The latter are the rough and ready conduits for the values we bring to bear on the choices among candidate language frameworks or explications. The knowledge we articulate in our formal languages constrains the

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decision space of possible actions (including verbal actions such as explication), informs us of the consequences of choices within that space, and shapes our values in many other respects. But our values, on the other hand, though shaped, constrained, and formed by this knowledge in many respects, are not determined by it. Moreover, our values guide our choices among formal languages and explications, and thereby also shape our knowledge—not least by determining what we *mean* by "knowledge." So there is a continuous mutual feedback and adjustment: values ultimately determine what we define as reason, but the reason thus provisionally defined informs and enlightens our values. Reason is not the slave of the passions, as in Hume, nor can reason determine our values, as in Kant.

Price calls the form of noncognitivism[7] required to apply the Carnap Thesis along his lines a "functional pluralism" (Price 1997, 136) that recognizes "that there is more than one framework in use in ordinary language, and that there is no framework-independent stance for metaphysics" (ibid., 137). The possibility of such a functional pluralism has been obscured, Price says, by an "ontological monism" that the Carnap Thesis undermines. "In a limited way," Price allows, Carnap had himself already taken this step and embraced a functional pluralism, which Price now makes it his project to generalize. Carnap's treatment of mathematics, he says, "is the treatment a functional pluralist seeks to extend to the other four" (ibid.).

He gives three examples of this treatment from the current philosophical literature, applied to reference (Brandom), values (Gibbard), and truth (Horwich).[8] What the applications of this treatment in these different cases have in common, he says, is their "minimalism," i.e., their interpretation of the concepts and relations they address as fulfilling some function in human discourse, but not as requiring some substantial counterpart in the world, in "reality." They are "thin" in the sense that they are completely schematic and leave the actual instantiation of the relations they address to others (mostly as a matter of empirical research).

This was Carnap's approach, too. His treatment of semantics was so "thin" (in Price's terms) that Russell, for instance, completely misunderstood it, even after spending half a year at Chicago talking to Carnap about it in person.[9] Similar misunderstandings among contemporaries abounded; Neurath read into Carnap's embrace of Tarskian semantics in the mid-1930s a metaphysical hypostatization of reference that Carnap was simply unable to comprehend (Uebel 2001). Quine, along the same lines, mistook Carnap's conception of logic and mathematics for substantial (i.e. for "thick"—as making some claim about something extralinguistic), and this misunderstanding underlay his attack on Carnap's supposed substantialization of analyticity (Creath 1994). Sellars (1963) defended Carnap against Quine about analyticity, but (like Ryle) shared Quine's equally mistaken view of Carnap's supposedly "Platonistic" substantialization ("hypostatization") of reference to abstract entities (Carus 2004, section 3, 332ff.). One need not think the details of Carnap's technical work in modal logic or semantics stand the test of time—though his genuine innovations have often been attributed to others (Awodey 2012)—to see that his approach to semantics and modality were as "minimalist" as any of the current authors Price cites.

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Though these misunderstandings and their modern echoes still pervade the airwaves, there are signs that Carnap's early inferentialism is finally being recognized (Chalmers 2012; Peregrin 2011; Peregrin forthcoming). Especially, his syntactic attempts in the early 1930s to do away with reference in the metalanguage are recognized as anticipating the very efforts to "explain reference away" (Brandom 1984) that Price takes as exemplary of the minimalism he seeks to generalize. What is still missing in this belated recognition of Carnapian inferentialism is (a) that it goes a lot further back than the *Syntax* period and (b) that Carnap never gave it up. His acceptance of "meaning" after 1935 was not a *return* to anything (such as Wittgenstein's picture theory); it was entirely schematic (Awodey and Carus 2007, 2009).[10] In the more narrowly-focused Carnap literature, on the other hand, this fundamentally *functionalist* character of Carnap's approach has been understood for a while (Creath 1994, Kitcher 2008).[11]

The structuralist inferentialism of the *Aufbau*, in contrast, is less widely understood, perhaps because Carnap's early attempt there (§§153–55) to do away with reference altogether and thus to make all knowledge purely structural failed. But this failure hardly dilutes the fundamentally "inferentialist" character of the project of picking out even the basic difference among human senses not by ostension but by their structural characteristics, e.g., the number of (experiential) dimensions they exhibit (Carnap 1928; Friedman 1999, Chs. 5 and 6; 2007). This inferentialism is rather different in tendency from Brandom's, of course, but it certainly shares the goal of explaining reference away (or rather accounting for reference without requiring that there be anything independently accessible for linguistic reference to refer to) that Price finds attractive in Brandom.

This minimalist functionalism Carnap also applied, like Blackburn and Gibbard, in the case of values. Here opinions diverge, as we have already seen in the discussion touched on above about Carnap's overall conception of reason. On the one side are those who think Carnap's conception is too "thick" and on the other side those who find it too "thin." The former are worried, e.g., by Carnap's late discussions of the role of "intuition" and the "a priori" in arriving, e.g., at the axioms of inductive and even of deductive logic. The latter worry that Carnap's supposed "emotivism" leaves him without any ultimate metaframework on which to build the foundations of rationality itself. In Price's terms, the former attribute a "substantial" noncognitivism to Carnap, the latter an excessively "thin" one—so thin that it provides no rational guidance at all to the construction of rationality, and amounts only to a passive relativism. Howard Stein's "dialectical" solution to this apparent dilemma, discussed above, points to a different interpretation of Carnap's cryptic discussions of values; it suggests that values can be informed by knowledge just as knowledge has to be guided by values. It is certainly clear that Carnap's own noncognitivism was entirely a matter of stipulation; he thought we could decide whether to set up our language (formal or informal) with "pure optatives" (the terminology of Carnap [1963]) in it or not; it is also clear[12] that theoretical considerations, in his view, could be brought to bear on practical decisions such as the external question(s) regarding the constitutive axioms of both inductive and deductive logic. But what about the ultimate, highest-level metavalues? Could rational considerations of any kind be brought to

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bear on those? Many have thought not, but recently a fragmentary continuation of his reply to Kaplan (Carnap 1963, 999–1013), where he outlines his conception of value statements and value inferences, has come to light (Carnap 2017). And here he makes very clear that he thought rational considerations, not just motivated by descriptive pragmatics, but also by "purely valuational" considerations, having nothing to do with instrumental rationality as enshrined in decision theory or inductive—or deductive—logic, have a decisive role in deliberation about comprehensive value statements.[13]

Price is certainly right that these applications of Carnapian "minimalism" and "functional pluralism" by Carnap himself are far less visible, and have been less discussed, than the application to mathematics and related abstract objects. But this results only from the contingent historical fact that Quine's and Ryle's misunderstandings drove Carnap to respond with wide-ranging published clarifications such as "Empiricism, Semantics, and Ontology," which has been read much more widely than what he wrote in the other areas, and in some cases did not even publish. The applications in these areas, in fact, have only really come to light and been broadly acknowledged in recent years.[14]

2. PRAGMATICS

The briefly sketched "philosophical anthropology" of Price's (1988) account of the function of truth and assertion left much work to be done. At some point, one hoped and suspected, he was going to proceed toward filling in that sketch and to give us more details about the character of this "philosophical anthropology" that he regards, roughly, as a branch of biology, an empirical study to explain why and how various concepts and kinds of concepts came about, how we use them, and what we use them for. Carnap also had room for a "philosophical anthropology" of this kind; he called it "descriptive pragmatics." In his tripartite classification of metadiscourse into syntax, semantics, and pragmatics, the latter part or aspect is actually of much broader scope than Carnap himself makes fully explicit. As Howard Stein points out, Carnap often makes it sound as if pragmatics (officially defined as the study of language in use) concerns only "something like the *idiosyncrasies* of use in ordinary language." Moreover, Carnap's prejudice (which Stein of course does not share) that "the empirical interpretation of a theory could always be achieved by specifying the *semantics* of the *empirical* part of its language" led to a further apparent trivialization of pragmatics, as "its role in this fundamental problem of the analysis of 'empirical content' would be restricted to the single function of distinguishing, within the language, its 'empirical part'" (Stein 1992, 287–88). But if we don't let ourselves be misled by this distraction, and take Carnap's classification seriously, we recognize that most of what has been going on in methodology, philosophy of science, and philosophical history of science over the past half-century or so[15] is part of (pure or descriptive) pragmatics in Carnap's sense.

Pragmatics takes on a special importance in the context of Carnapian explication, briefly introduced in the previous section. In its predecessor programs, including Carnap's own *Aufbau* program of rational reconstruction, better (more precise) concepts were to replace vaguer and less useful ones, *once for all*. Rational construction

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was seen as piecemeal replacement of our vague natural language by a more precise language of science, the gradual extension of precise concepts into the territory formerly occupied by vague, informal concepts. What Stein points out (ibid., 291–92) is that under the post-*Syntax* auspices of Carnapian tolerant pluralism, this process is no longer a one-way street. As in the above account of Carnapian rationality more generally, explication becomes a dialectical interchange of mutual adjustment between the languages employed to articulate theory and to mediate practice. Questions about the relation between explicandum and explicatum are not themselves internal (in the ESO sense) to the explicatum language:

> The explicatum, as an exactly characterized concept, belongs to some formalized discourse—some "framework." The explicandum . . . belongs ipso facto to a mode of discourse outside that framework. Therefore any question about the relation of the explicatum to the explicandum is an "external" question; this holds, in particular, of the question whether an explication is adequate—that is, whether the explicatum does in some appropriate sense fully represent, within the framework, the function performed (let us say) "presystematically" by the explicandum. (ibid., 280)

Thus explication itself—the identification and specification of appropriate explicanda, the invention of new explications for them, and the decision among different candidate explications for a given explicandum—falls within the realm of pragmatics for Carnap, and indeed becomes perhaps its central component.

Quine notoriously held that, on the contrary, pragmatics was superfluous; syntax and semantics were sufficient (e.g., Quine 1987, 211). The very idea of pragmatics exemplified to him precisely what Quine thought was wrong with Carnap's entire approach, which was that Carnap did not rest content with a standpoint internal to science, *in mediis rebus* (Dreben 1994), but insisted on stepping outside the "conceptual scheme" of working science and appraising it from an external standpoint.

But like so much of Quine's critique (Creath 1990), this is rooted in a misunderstanding. Carnap actually proceeds from a starting point in which our cognition is just as entangled, just as deeply immersed *in mediis rebus*, as it is for Quine. Language users are, in Carnap's view, also participants in the world that the language they use is about. They are not just representers, and consumers of representations, but also *agents* in the world so represented. This unavoidable condition of agenthood does not, however, condemn our representations to unavoidable contamination. Unlike Quine, Carnap thought we *also* have the capability of *stepping back* from that existential *Geworfenheit* of having to act and facing choices. We can abstract from it and isolate certain features from the Heraclitean flux of immediate, deeply entangled experience. We can separate out a purely representational (or semantic) component of language from its pragmatic embeddedness in a world of agent-users. (Had we been unable to perform this trick, our species would have been trapped from the outset in Parmenidean paralysis; cognitive life could never have got off the ground.) For everyday scientific and technological purposes, this semantic abstraction works

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smoothly and requires no help from pragmatics. Indeed, the continuing cognitive and technological progress of the species depends to a large degree on our institutionalization of this and similar feats of abstraction. But when the need for explication or language change arises, semantics is no longer self-sufficient. The choice among explications (as Howard Stein and Thomas Kuhn both emphasized from different perspectives) is *external* to the particular language framework(s) under consideration.

Quine excluded external discourse altogether, but for Carnap this exclusion extended only to semantics, where the user-as-agent is abstracted away. Faced with a problem that points beyond semantics, a problem that puts the concepts themselves or the constitutive rules of the language into question, the Carnapian retreats—not to a Quinean "mother tongue," as Ricketts (2004, 199) maintains—but to pragmatics, where the user is once again an actor in the world represented, and there are choices to be made.[16] There is nothing about the inescapability of choice that forces us to retreat to the arbitrariness and inconsistency of ordinary language. Quine was a noncognitivist about ethics, but by some arbitrary carve-out (which he never explicitly motivated, or even spelled out anywhere), the (practical) choice *among languages* (or among explicata) was excluded from the scope of his noncognitivism.

Descriptive pragmatics is the part of pragmatics that gives explication its constraint structure. What are we up against in the physical world, the social world, the structure and workings of languages themselves, our short-term memory capacity, and many other aspects of our cognition when we go about setting up languages and, more locally, devising explications? Before we build a house, we need to know something about the terrain, the climate, the likelihood of earthquakes, and much else. So it is with languages and explications.

Price seems largely to be on the same wavelength as Carnap, and the "philosophical anthropology" by which he seeks to diagnose the "function" of truth in human languages sketches an empirical, quasievolutionary (cultural-evolutionary) account of its function—under the somewhat risky assumption that this function has remained stable over time, or rather that whatever function(s) "truth" and "assertability" and related concepts had when they first came to be used by our species must have retained their function(s) thereafter.

This assumption is risky for several reasons. First, as any evolutionary biologist will tell you, the properties of an environment in response to which some feature of an organism first came into existence and was then (genetically or culturally) transmitted *can change*; features that were advantageous in one environment or ecosystem may turn out to have either no use or, sometimes, a completely *different* use (i.e., confer a completely different kind of survival advantage) in a new environment or ecosystem. Second, the relevant ecosystem in this case *has* changed radically; if you look at the history of human language in particular, there is a long-term trend in the direction of greater precision in the use of language, within certain subgroups, for the specific purpose of conveying information.[17] One major turning point in this trend was the invention of axiomatic geometry about 2500 years ago, resulting in our modern outpouring of pure and applied mathematics, the source of linguistic frameworks for all our more serious and reliable knowledge. This trend has had an enormous

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impact on the use of "truth" (as well as "fact," "assertion," and many other related concepts); one need hardly go into details to realize that it would be going pretty far out on a limb to suppose that the function(s) of "truth" remained the same over time.

This problem starkly highlights the dangers of *any* schematic or conjectural descriptive pragmatics that does not start out from the empirical disciplines whose fields it makes claims about. The quest for "the" function of truth is misplaced; what Price was looking for (or should have been) was actually an account of the evolution of the roles played by concepts of truth over time, and this would obviously be part of some larger account of the historical evolution of the societies in question over time. We return to this problem in section 5 below.

3. BRANDOM ON EXPLICATION

While the "functionalism" shared by Carnap and Price seems quite straightforward, the underlying notion of "function" is itself not entirely clear. How do we *know* what the "function" of some part of language is? What sort of evidence would be relevant? Is there a fact of the matter about "function" (or about "the" function of something)? Presumably factualism about function would be no better for Price than factualism (the 1988 word for representationalism) about anything else.

In any case, the descriptive pragmatics of "function," "truth," and "assertion," tentatively sketched in 1988, needed to be filled out and situated in an account of language and meaning from which, preferably, they could emerge as natural artifacts. In 1988, Price seems to have been attracted by a late-Wittgensteinian (social-practices) approach to this problem, but more recently, he has been drawn to the more systematic and hierarchical approach developed by Robert Brandom (1994), who differs from Wittgenstein in certain fundamental respects.[18]

He also differs, in similar ways, from Carnap. Brandom's (2000, 57) "notion of explication," for instance, is quite different from Carnap's. Explicating a concept, for Brandom, is drawing out and making explicit what was implicit in a less articulate predecessor concept; he appears to use "explicating" and the neologism "explicitating" more or less interchangeably. He calls this a version of "expressivism" because making something explicit expresses what was previously inchoate and inarticulate; thus logic is seen to have an "expressive" function in the sense that it can spell out steps in reasoning that were previously buried. Brandom cites the early writings of Frege in support of this "expressive" conception of logic. Carnap's goal of explication, in contrast, was to *replace* the colloquial explicandum by a newly-minted explicatum, which was to fulfill the function(s) (or some functions) of the explicandum, if possible, but was not ultimately responsible to it in the way that, for Brandom, an expressum is responsible to its pre-articulately intended exprimendum.

This reflects a basic difference of priorities, of course, and this difference is one source of Carnap's continuing unpopularity among professional philosophers. Even in Carnap's own time, it was a red flag. Davidson, for instance, took it for granted that "the primary goal of systematic theory of language . . . is to interpret or rationally reconstruct the language we understand the best and need the most"[19] (Davidson 1963, 349). And Strawson, along the same lines, objected in his critique

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of Carnap that "typical philosophical problems about the concepts used in non-scientific discourse cannot be solved by laying down the rules of exact and fruitful concepts in science. To do this last is not to solve the typical philosophical problem, but to change the subject" (Strawson 1963, 506). Strawson appears to have conceived ordinary language as *ontologically* primary as well: ". . . the actual use of linguistic expressions remains [the philosopher's] sole and essential point of contact with reality" (ibid., 518).

Brandom seeks to derive, or explain, the capacity of "sapience," of using explicit language, from more primitive capacities, i.e., his "order of explanation" is to trace knowing-that back to knowing-how, linguistic meaning back to action contexts. The human endowment of physical objects (words, signs) with meaning is seen as a making-explicit of social interaction among groups of humans and of the norms governing those interactions. This then also requires an implicitly developmental conception (though never quite offered as an empirical account of human cultural or linguistic evolution) of progressively new and different mental capacities each layered onto previous capacities, culminating in the "sapience" that enables humans to read and signal intended meanings by means of physical artifacts (words and other forms of signal).

Unlike Wittgenstein, though, Brandom seems to regard more precise and self-conscious linguistic practices past a certain point in this vaguely developmental story (perhaps past the point where sapience has been achieved) as incapable of standing on their own feet; they remain dependent on their entanglement in their murky root systems. It is unclear exactly how linguistic practices are to be individuated, for Brandom, since *within* such more advanced linguistic practices, the more abstract and formal parts remain rooted in, or even parasitic on, the more concrete and practical parts. In particular, deduction is not only traced back to practical reasoning, specifically the common-sense "material rules of inference"[20] of everyday life, but somehow remains umbilically dependent on it. In this respect, Brandom departs from Wittgenstein's view of language as a "motley," and follows rather a path more like Strawson's. In the terms of Wittgenstein's metaphor of the crooked lanes and wynds of an ancient city, Strawson—*unlike* Wittgenstein—thought the suburbs (with their regular streets and their formalized languages) are *parasitic* on the ancient center, that they *depend* on that core in some sense.[21] For Wittgenstein, there was no hierarchy among these parts; there was a history, of course, but he did not think that what came later was fundamentally dependent on what came before. Brandom, like Strawson, holds that whatever meaning the newer and more constructed parts of language can convey is parasitic on meaning in the colloquial, evolved language in which we are ultimately guided, implicitly or explicitly, by "material rules of inference."[22] To adhere to the reverse "order of explanation" is to commit the "dogma of formalism" (Brandom 1994, 97ff.).

But to adhere to Brandom's preferred "order of explanation" (requiring the modern suburbs to be parasitic on the ancient center, as in Strawson) requires that ordinary language have a well-defined, untainted "core," free of artificial accretions, as the metalanguage in which the more formal and constructed parts of language can be endowed with meaning. An obvious Wittgensteinian objection to this idea might be

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that there is no way of identifying such a "core," and no such thing as "ordinary language"—since actual spoken language, as encountered empirically, is always a mishmash of various registers and dialects and technical sublanguages, professional jargons, embedded in different social environments, different geographical regions and institutional systems, different professions or disciplines. Strawson, with his constructive cast of mind, might have responded that, in that case, the only solution is to define as precisely as possible a narrowly-defined "strict core" (as one might call it) of interconnected ordinary-language concepts. In Strawson's own conception of philosophy, however (and perhaps in Brandom's), this would be a highly problematic expedient, since such a "strict core" would never actually be exemplified in the utterances of any actual speakers of ordinary English (say); it would appear only in contaminated form. Actual utterances would always need to be analyzed into their strict and accretive components—and this analysis would not itself have any basis in actual usage, but be just as purely stipulative as, say, Carnapian meaning postulates.

A biological or cognitive-science version of this "strict core" idea is Dennett's notion that a particular configuration of hard-wired intuitive responses can be identified as *the* "manifest image" (in the sense of Sellars). Then one would have to argue, as Dennett and some other cognitive scientists actually do, that all the Protean forms of actual used language—all the subdialects and registers and professional jargons—are to be regarded as parasitic on that "strict core" in the same way that Strawson argued that scientific languages are parasitic on ordinary language. Brandom's form of this argument seems much closer to Strawson's, but although he doesn't explicitly claim that "material rules of inference" (rooted in hermeneutic understanding) embedded in ordinary language and knowledge-how give us our only "contact with reality," his argument from the "order of explanation" implies a reductionism that leaves unclear what *sort* of explanation (whatever the order) is intended.[23]

However, the success of this entire genre of dependency argument—once very popular among ordinary-language philosophers—rests in all these versions (apart from Dennett's)[24] on something like Strawson's case for it, which would appear to collapse in the face of Carnap's challenge to it in his 1963 reply to Strawson. First, Carnap pointed out that the dependency we observe in everyday life is purely contingent. Yes, he allowed, we have evolved in such a way that natural languages are our mother tongues, and we learned them long before we learn constructed languages, so of course we have little choice but to learn the constructed languages *via* a natural language. Strawson wrongly infers from this, though, that no other way is possible. But we know from the cases of Esperanto and other such made-up languages, that we can also *create* languages for everyday communication, and there is no reason to think that children couldn't grow up speaking those instead of their usual mother tongues.[25] How far could we vary the parameters of such artificial languages, how precise could we make them, before it became impossible for children to learn them as first languages? We have no idea (this is an empirical question that for good reason hasn't been studied),[26] but we do know that humans are in fact able to learn complex artificial languages (such as algebraic topology, or orchestral scores)—well past the age at which *natural*-language learning starts to require a lot more effort (around 12)—to a point of amazing fluency, and to build up extensive networks of

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intuitions around them. So we can hardly make dogmatic pronouncements on this issue.

But then, second, if the *empirical* case for the dependency of constructed languages on evolved ones loses its edge, what is left? Any assertion about dependency is *either* empirical, *or* it would require a case for the priority of natural languages in some ontological or metaphysical terms (or what would amount to metaphysical terms) such as an argument claiming that the correct "order of explanation" in some nonempirical sense leads from natural to constructed languages. Brandom does not appear to make this kind of case, but does he make an empirical one? This is hard to answer, as a terminological issue gets in the way. Brandom sometimes describes his case as "hermeneutical"[27] and it is far from clear whether that can amount to an empirical case. The hermeneutic tradition has tended to regard texts (or other objects of interpretation) as self-contained and shown little interest in iterative improvement of interpreting texts or societies by confrontation with what has traditionally been regarded as empirical evidence in the qualitative social sciences. But this question opens the unmanageable can of worms about the status of evidence in history or anthropology with which these disciplines are currently wrestling, which can't begin to be addressed here.[28] Brandom does not make clear where he stands in these debates. A parasitic-dependency argument (of constructed on evolved languages) could, in any case, be empirical in one of two senses: (a) Strawson's and Brandom's sense that we observe a dependency of formal on colloquial languages in everyday life; (b) Dennett's sense that there is a hardwired "manifest image" underlying all our intuitive responses, including those built into colloquial language—and that all our intuitive reasoning, including "material rules of inference," reduce to this hardwired mindset. (a) is seriously undermined, as we have seen, by Carnap's 1963 argument; (b) remains a possibility; it is a thesis in descriptive pragmatics.[29] The latter is clearly neither Brandom's case nor Carnap's (and so definitely not Price's), so needn't detain us further here.

As Price (2008) has himself pointed out, it is not entirely clear on what grounds Brandom argues for the dependency of constructed languages on evolved ones; it is not clear what the primacy of the "hermeneutic" over the "algebraic" amounts to. It does seem clear that his account of meaning and assertion is, in Price's terms, "explanatory" rather than representational. The question is what kind of explanation he is giving. There is rarely any point of contact with existing bodies of empirical knowledge related to the speculative account he constructs, certainly less contact than Price's own 1988 account, which at least had roots in Darwinian evolutionary theory, and self-consciously aspired to be a branch of (i.e., to be at least consistent with) biology as currently taught and practiced in leading research institutions.

Carnap's response to Strawson might be paraphrased as making the basic point, in response to the questions about the status of "function" at the beginning of this section, that the function of an expression can be one of two things: we can either *discover* the function of an expression or concept—in any kind of language—by empirical investigation (*descriptive* syntax, semantics or pragmatics), or we can *stipulate* its function in a constructed language (*pure* syntax, semantics, or pragmatics).

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There is nothing else for the "function" of an expression to be; these two possibilities are exhaustive.

Of course one could add, in a spirit of Carnapian tolerance and open-mindedness, that if anyone has a suggestion for a further possibility (a further distinct sense of "function"), they are welcome to put it forward, but they should make clear what it is, and especially make clear that it is distinct from the two that Carnap holds to be exhaustive. Brandom does not do this. He seems to be looking for a sense of "function" that is neither empirical nor stipulative, but he does not spell out how it differs from these, especially from the empirical-descriptive sense of "function." But unless a hypothesis in descriptive pragmatics submits itself whole-heartedly to the scrutiny of the relevant empirical disciplines whose fields it implicitly makes claims about, it is obviously in danger of veering into the metaphysical. In Brandom, too, the absence of contact with empirical knowledge about the social processes and equilibria he discusses raises the question of the grounds on which he is making his claims. Particularly disconcerting in his case is the frequent invocation of social *norms* of various kinds, especially the norms of taking responsibility for utterances and the norms governing the asking for and giving reasons.[30] Norms and their—uniform or selective—enforcement are notoriously dependent on (embedded in) cultures and institutional systems, which vary widely both synchronically and diachronically. It would seem paradoxical to ground such universal properties of human language—especially of post-Euclid constructed languages—as logical consistency, assertability, truth, entailment, and the like on inherently *local* properties of cultures and institutions. In the absence of any conjectured mechanism by which local cultures tend inherently to converge in certain respects on universal properties of language or inference, this reliance on local properties of institutions casts serious doubt on the empirical plausibility of Brandom's proposal. He himself seems partially to acknowledge this defect in ranking his own "inferentialist" proposal as inferior to a "historical" account of rationality (Brandom 2002, 12–13).[31] One imagines that the account of norm-driven meaning endowment given in *Making It Explicit* is to be grounded in an account like Samuel Pufendorf's of the emergence of natural law—to which Brandom (1994, 46–50) refers prominently there. Pufendorf, at least, was well versed in the baroque details of German law and history. But social science has a great deal more to offer now (and a great deal to choose from!) and no account of the evolution of the function of various semantic concepts over time can hope for empirical plausibility if it turns its back entirely on the disciplines it trespasses on; see section 5 below.

4. VOLUNTARISM AND EXPRESSIVISM

Price resembles Carnap in another respect, which may or may not be coincidental. Like Carnap, he is a peacemaker, he tries to build bridges between and among different standpoints and find ways for them to accommodate each other. Above all, he tries to make the various standpoints *understood* to each other, tries to make them "commensurable." Though he doesn't go as far as Carnap's famous diagrams in which standpoints are assigned coordinates on a two-dimensional array, he is sympathetic to the motivation behind such devices. Price is a little more sensitive than

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Carnap was, though, to the demands of marketing, and sometimes changes his own terminology to make himself better understood to different philosophical audiences. This can make it a little difficult to discern how he himself views the tensions and possible conflicts between his liberal use of the "Carnap Thesis" and his more recent interest in Brandom.

In particular, it makes it hard to know how he would answer the questions at the beginning of the previous section: How do we *know* what the "function" of some part of language is? What sort of evidence would be relevant? Is there a fact of the matter about "function"? Despite what he says about "the" function of this or that, Price appears to be largely on board with Carnap's response to Strawson—i.e., with Carnap's rejection of the idea that there is something to *find out* about what "the" function of truth *really is*, in some other sense than the (entirely empirical) descriptive pragmatics of what functions the concept of truth had or has in certain specific societies (or subgroups) of humans, or how that function evolved over time in those societies.

For Carnap there is nothing to find out beyond that. And he saw no need to let ourselves be *guided* by what we find out. We don't *find out* what concepts to be guided by, we *decide* on them. This is a pervasive theme through all of Carnap's writings, early and late, which Richard Jeffrey has called his "voluntarism":

> Carnap's voluntarism was a humanistic version of Descartes's explanation of the truths of arithmetic as holding because God willed them: not just "Let there be light", but "Let $1 + 1 = 2$" and all the rest. Carnap substituted humanity for God in this scheme; that's one way to put it, a way Carnap wouldn't have liked much, but close to the mark, I think, and usefully suggestive. Item: Descartes was stonewalling, using God's *fiat* to block further inquiry. It is not for us to inquire why He chose 2 instead of 3. But for our own *fiat* the question is not what it was, but what it will be: choice of means to our chosen ends . . . Philosophically, Carnap was a social democrat; his ideals were those of the Enlightenment. His persistent, central idea was: "It's high time we took charge of our own mental lives"—time to engineer our own conceptual scheme (language, theories) as best we can to serve our own purposes; time to take it back from tradition, time to dismiss Descartes's God as a distracting myth, time to accept the fact that there's nobody out there but us, to choose our purposes and concepts to serve those purposes. (Jeffrey 1994, 847)

Jeffrey goes on to contrast Carnap with Quine in this respect—Carnap the conceptual and social engineer vs. Quine the conservative—not just politically but in their respective overall views of human knowledge and capabilities. It was certainly a major point of difference also (perhaps *the* major difference) between Carnap and Wittgenstein.[32] And this voluntarist strain in Carnap long antedates the principle of tolerance, where it finally found its fully adequate philosophical expression.[33] Wittgenstein would have agreed with Carnap that, in answer to the question how we find out about "the" function of this or that category of language, there is nothing to find out beyond factual accounts of historical processes. Neither thought anything

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like an ultimate reality was accessible, or that the philosophical notions of reality in such frameworks as realism or idealism made any sense (both Carnap and Wittgenstein, that is, were "quietists" in Price's sense), and both thought that what mattered was the linguistic networks or structures through which we perceive whatever is out there. Like Poincaré, though, Wittgenstein thought that we are so deeply entangled in those networks that we can hardly work our way free from them to any extent without enormous *individual* effort to see things in a larger perspective. The human languages we are involved in and participate in, whether evolved or constructed, shape our world for us so deeply and thoroughly that we can hardly hope to step back from them, we are to a large degree imprisoned in them.

Wittgenstein's conservatism is much more common among philosophers than Carnap's voluntarism; it is shared by (among many others) Quine, Davidson, Strawson, Sellars (who had conflicting inclinations, though)[34] and Brandom. (To that extent, Wittgenstein's pessimism about the difficulty of shaking off the conceptual burden of our collective past seems entirely justified.) Wittgenstein differed from most of these figures, and most traditional philosophers, in regarding the world that we live in as constructed, rather than something we have some sort of direct or indirect access to, indeed he regarded it as *socially* constructed. But he did not think we could throw off these constructions at will. He saw them as coming about by gradual social evolution—and as being embedded in that gradual evolution—but this was not a process we could reverse at will or gain control over.

Carnap, on the other hand, saw no problem in taking matters into our own hands. We decide to set up a language in a certain way, whatever suits our needs. We can even set it up, if we like, so that there are no analytic sentences, but Carnap, looking around at what scientists actually do, thought this way of setting things up would be very impractical for the cognitive enterprise—a bit like Goethe's efforts to set up a language of physics (or optics, at least) that dispensed with a theoretical language and stuck to the strictly observable.[35] So it's not as if Carnap recognized no constraints in the setting up of languages. But he saw no need to shoulder the burden of the past; he thought we could shrug it off easily.

This is why, unlike Price, he was not so very interested in descriptive pragmatics. He did think it was an entirely legitimate pursuit. And indeed, when he first read Thomas Kuhn's manuscript of *The Structure of Scientific Revolutions* (which first appeared as a volume in the *Encyclopedia of Unified Science*, of which Carnap was still editor at the time) he was very impressed and intrigued (Reisch 1991; Earman 1993; Friedman 2003). Nonetheless, he thought we had very extensive freedom to build as we like, and needn't worry too much about our constraint structure.

This was hardly a self-conscious policy; Carnap took his voluntarist attitude so completely for granted that he did not realize just how far it put him outside the mainstream of philosophy, or how difficult it made it for other philosophers to understand where he was coming from. It never occurred to him that Neurath, for instance, could seriously read a metaphysical realism of any kind into his semantic conception of truth in the 1930s. Semantics for him was an entirely linguistic affair; he did not consider the "metaphysics" of reference because it simply did not occur to him that for some (like Russell), the *pragmatics* of reference (the implementation of

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reference in the physical, social, cognitive world) was the real problem, any more than he understood Quine's parallel objections to analyticity.

Where Price, then, seeks to generalize Hume's noncognitivism and Brandom's internalization of reference to a "global expressivism," Carnap might appropriately be said to have espoused a "global voluntarism," since its scope is similarly unrestricted.

What exactly is the relation between global expressivism and global voluntarism? Are they different ways of articulating the same idea? Or are they in some way incompatible? It depends how the global expressivism is to be understood. If it is understood in a strongly Brandom-tending sense, as requiring a dependency (in some nonempirical sense) of constructed language on natural language and, correspondingly, a core (in some nonempirical sense) of natural language, then global expressivism and global voluntarism are incompatible, since these requirements restrict the free construction of languages by constraining them to conform (in some perhaps not yet specified way) to certain core conditions of natural languages. If it is understood in a *less* restrictive, less Brandom-oriented sense, global expressivism could be regarded perhaps as a restricted subform of global voluntarism, one in which explication is understood in Brandom's sense and restricted only to cases where there is an antecedent natural-language exprimendum (in Carnap's ideal of explication, remember, there need not necessarily be an explicandum for every explicatum). And presumably the requirement (which varies from one form of expressivism to another) that the expressum "express," i.e., articulate and spell out, the exprimendum imposes tighter restrictions on the relation between exprimendum and expressum than Carnap's very loose and entirely pragmatic relation between explicandum and explicatum.

Carnap's global voluntarism was not only highly unusual for a philosopher, but in its way charmingly naive. For someone who had fought in some of the bloodiest engagements of the First World War (on both fronts) and been wounded in battle, had witnessed the German Revolution in Berlin in 1918, had seen the street fighting in Vienna during the late 1920s and early 30s, including the burning of the Justizpalast, as well as the agitation of Sudeten-German nationalists in Prague, and finally been forced to live in exile, he remained astonishingly unfazed—and resolutely unworldly. He was no less utopian about human capabilities and human potential in his old age in California than he had been as a member of the Youth Movement in prewar Jena.

For many, such indefatigable optimism goes way too far. On the whole this is a question of taste, and is hard to argue with. But there are also principled grounds for dissenting from Carnap's insane optimism. Mark Wilson (2006), for instance, has shown in great detail how certain concepts, rather than converging to clear, unambiguous explications, split up into many special cases when applied to the actual world, and that these special cases are often hard to reconcile with each other. In the context of practical applications, a concept may be adapted in many different ways in different contexts, none of which it fits perfectly, so the details of the particular applications, naturally enough, are often inconsistent with each other. When our concepts have to be made more precise to get something done—building bridges, getting colors of cloth and buttons to match our designs, or making scratchproof

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lenses—they do not converge neatly into unified patterns. Instead they splinter off in a hundred directions. Simple concepts like "red" or "hard" ramify into unsuspected complexity, and no straightforwardly deductive relations can be established among the resulting tergiversations of meaning. Instead, Wilson proposes that we regard such concepts as "atlases" in which the collection of particular local "theory facades" adds up to a view of the "same ground" from different perspectives in different projections and on different scales, with different features highlighted and backgrounded. There is no "unity" among the different pages of the atlas—on the contrary, there is a loose congeries of facades for different tastes and occasions. Or in certain cases we can stich up the atlas pages into a kind of irregular patchwork, which again has no logical unity but can at least be applied as an internally consistent cookbook. Our efforts to impose some kind of deductive unity on the concepts we employ, then, are doomed to ignominious failure.[36]

Wilson's work is a good illustration of the critical importance of descriptive pragmatics; I think even Carnap would have taken it seriously, and realized (as he did when he encountered Kuhn) that it perhaps was worthy of more attention to than he had allowed.[37] One has to have some idea what sort of ground one is building on before one just starts putting down some bricks!

5. TOWARD AN EMPIRICAL DESCRIPTIVE PRAGMATICS

Though Carnap's own emphasis was not on descriptive pragmatics, as we have seen, he would have had no objection to Price's interest in it. But his advice would undoubtedly have been to adopt a more empirical approach to it than Brandom appears to favor, perhaps more along the lines of Price's own quasievolutionary sketch in 1988 (and 2004). Certainly Price accepts in principle that descriptive pragmatics is an empirical task, rather than a metaphysical one. The question is whether he would be willing to accept it in practice, once the dimensions of the task became evident. And since the existing social and human sciences have shown little sign, so far (though see below), of producing such an empirical research agenda on their own, it will be up to those interested in descriptive pragmatics to find what they need for themselves.

How might one concretely go about getting closer to an understanding of the role of truth and assertion, among other concepts, in human societies—and on that basis, then, more specifically in human languages? Where would one look? The social and human sciences are notoriously fragmented, in their methods and also in their ideological commitments. Where to begin?

Fortunately, there are now a few linguists and ethnographers who directly address questions of linguistic meaning and reference empirically. N.J. Enfield (2015), for instance, draws on his many years of fieldwork in Laos to develop and test a theory of linguistic communication and reference in everyday contexts. He looks closely at how particular words and classes of words function in specific practical situations. He shows how the minimization of effort (on the model of Gigerenzer's "fast and frugal" heuristics) leads individuals in different situations, with their different individual perspectives and backgrounds, to widely divergent hypotheses about what a word means. But as the disparate individuals are confronted with evidence of actual use in

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the course of language learning and everyday practical interaction, public word significations converge and become sufficiently precise for purposes of ordinary communication. Utility of a *word* for this interpersonal communicative purpose, he argues, not the utility of *its referent* for any other practical or social purpose, is what underpins a word's meaning and keeps it in circulation. The utility that motivates meaning is that of the signifier, not of the signified.

Enfield's research provides a directly relevant context and a good starting point for addressing Price's questions about the function(s) of truth and assertability in human societies, then, but there are some important dimensions missing, especially regarding the interaction or interdependence between evolved natural languages and the constructed languages that lie at the heart of the human *cognitive* project, the advanced sciences. Also, the question can certainly be raised, from a viewpoint of social methodology, whether it is always feasible or even intelligible to proceed directly from individual communicative interactions to social outcomes (such as the use of particular words to refer to particular items or processes in the shared environment). Such a question can be raised from a Wittgensteinian viewpoint, for instance, regarding the embeddedness of language use (and thus meaning) in a system of social practices in a society.

Complementary in these ways to the kind of empirical study exemplified by Enfield there exists, though, another kind of approach that is more compatible with the Wittgensteinian emphasis on social practices. As applied to the contexts of constructed languages, this approach was pioneered by the cognitive ethnologist Edwin Hutchins especially in his book *Cognition in the Wild* (Hutchins 1995), which focuses on the social practice of navigation on large ships, based on his ethnological research on U.S. Navy vessels. In examining how navigation works in practice on such large vessels, Hutchins shows that it is a widely distributed expertise, not localizable in any particular individual brain but requiring the coordination of many physical, conceptual, and practical artifacts ("affordances") as well as many individuals of different specific expertise, transmitted mostly by apprenticeship and by socialization into a work group, within the framework of various languages in which concepts directly relevant to navigation are encoded. The picture is a Vygotskian one,[38] of a widely distributed social software being installed, via a learning process of active assimilation, in the individual human hardware with its biological machine code, of those who are enculturated in the social practice. There is room in this picture for both natural and constructed languages, but Hutchins does not himself specifically probe the relation between them. Natural languages serve as the social interface for everyday communication while the navigation-specific concepts employed by (or in the background of) navigational practice are encoded in constructed languages, but these are not specifically discussed in their relation to the natural language in which they are mediated to their practitioner-users, and in which the concepts are embedded in the social interactions surrounding their practical application.

While there has been considerable interest in the Hutchins-inspired research agenda of "distributed cognition" and the "extended mind," it can hardly be said to have gelled (yet) into a coherent research program.[39] One critical piece still missing is a pathway toward extending Hutchins's account of social practices as

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"computational systems" to a broader account of social institutions and institutional systems as the basis for individual cognition (and also as the basis for many properties and components of societies, e.g., their economic systems, their political cultures, their intellectual, literary, and artistic cultures, and much else).[40] Many of the components for such a comprehensive study of institutional systems exist in various corners of the social sciences, e.g., in certain parts of economic history currently somewhat threatened with extinction,[41] in certain byways of development economics, and in parts of sociology and anthropology. But these disparate, miscellaneous *disjecta membra* have not come together into a coherent, cumulative discipline or focused study of any kind, let alone for the purposes of a descriptive pragmatics of the kind sought by Price.

Still, this is the direction in which a descriptive pragmatics that could seriously hope to answer questions about the *function* of linguistic concepts such as "reference," "truth," and "assertability" is to be sought. The function of such terms, following a research program like Enfield's (without taking his specific findings as conclusive, let alone authoritative), lies in their utility[42] to language users. Expanding the scope of Enfield's perspective by placing it within the system of social institutions in which language use and linguistic communication are embedded, by following and extending the example of Hutchins's ethnographic investigation of one particular institution, would be essential to approach an empirically informed understanding of how to locate the function of such concepts within the society in which their linguistic use has its context.

Of course this is all quite utopian, perhaps at the level of Carnap's excessive optimism about the possibilities for human cognitive progress. It is a long-term program for the emergence of a new empirical science on the scale of such existing sciences as, e.g., the astrophysics or the geology we now possess—and moreover a science of which only the most rudimentary beginnings are in place, for which there is no intellectual or practical infrastructure, and the need for which is not even widely perceived. On the other hand, it is—perhaps luckily—a need that is not confined to empirically or anti-metaphysically-minded philosophers desiring to get beyond mere plausible speculation in their efforts to construct a more systematic descriptive pragmatics. (If it were, the situation really *would* be hopelessly dire!) For it also happens to be a promising candidate for the role of the long-sought unifying framework for the social sciences—a role analogous to that played in the life sciences by ecology; indeed it could be seen as a kind of theoretical ecology of social processes.[43] Here, too, it has not (yet) been widely recognized as such, and perhaps it takes a crazed and stubborn optimism on the scale of Carnap's to think that mere rational persuasion could ever create a constituency for it.

Whatever one might think of such utopian research programs and disproportionate optimism about their realizability, the point remains that there can be no descriptive pragmatics with any hope of shedding light on the actual function of "truth" and "assertability" without some such infrastructure for empirical investigations of institutional systems. On the other hand, one doesn't perhaps have to go to the extremes of optimism Carnap exemplifies to share his global voluntarism to some degree, and to go ahead with constructing a pure pragmatics of "function" without the benefit of

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much descriptive pragmatics. The dangers Mark Wilson points to should certainly not be lost from sight, but the ultimate question before us in these inquiries about reference, truth, assertability, modality, mathematics, values (all of Price's "M-worlds," in short) is not what *is* (in either the traditional—and still largely favored—metaphysical sense, or in the explanatory, empirical sense that Price and Carnap prefer), but what we *want* there to be.

NOTES

1. Friedman and Creath (2007) provide an introduction to the new perspective from an array of representative authors. Carus (2015) [http://www.oxfordbibliographies.com/view/document/obo-9780195396577/obo-9780195396577-0248.xml] provides an overview of the vast literature that has accumulated over the past decade or two.
2. This was, of course, Carnap's (1945; 1950b) own finding in the case of "probability." He called the two main usages "probability$_1$" and "probability$_2$."
3. Two exceptions, who both knew Carnap the person but *also* read carefully (and listened carefully) were Richard Jeffrey and Howard Stein.
4. Carnap never adhered to the latter, certainly not in the form in which it is put forward in Ayer's *Language, Truth, and Logic* (1936). The classic refutation of Putnam's claim about the principle of tolerance (Putnam 1981, 112), informed by the newer scholarship, is Ricketts (1994). In a reply, Putnam dismisses Ricketts's close reading of Carnap's actual texts on the grounds that "this isn't the Carnap I knew and loved" (Putnam 1994).
5. On its prehistory and ramifications in Carnap's work, see Friedman (2007); Carus (2007; 2016); Creath (2004).
6. One of the clearest statements of the tradeoffs between such a position, attributed to Carnap, and a Quinean position where we are simply inside whatever framework we are in, *in mediis rebus* (Dreben 1994), without access to its basic framework principles, let alone the ability to choose them, is given by Alexander George (2012, 10), concluding:

   > But for Carnap, as we have seen, such considerations can at best exert a non-rational influence on an agent who is choosing which framework to adopt. Talk of rational constraint only has its place within a framework, once a language and rules of reasoning and inquiry have been settled upon. For Carnap, this observation is critical in understanding why traditional philosophical disputes have proven to be so frustratingly irresolvable and so different from scientific disagreements: philosophers, unlike scientists, typically dispute about which framework to adopt, which language to speak, and no facts about the world can rationally bear on such disagreements. The empirical facts only come into focus, and talk of rational relevance only gets a grip, once a particular linguistic framework has been adopted.

7. Price clarifies in the passages referred to (footnote 9 on p. 126 of Price [1997]), and especially in O'Leary-Hawthorne and Price (1996), that by sometimes claiming a continuity between his functional pluralism and "orthodox non-cognitivism" (by which he means Moore, perhaps?), he is not signing on for other views that have become associated with such noncognitivism. It is perhaps worth pointing out that Carnap himself actually introduced the term "noncognitivism," as far as I can tell (see http://awcarus.com/2016/06/non-cognitivism-a-very-modest-proposal/), and in that original usage it has none of the associations Price perhaps rightly perceives it as now burdened with.
8. Here I say "he" for continuity although the paper referred to here has a co-author (O'Leary-Hawthorne and Price 1996); I assume Price endorses what they say there.
9. Russell missed in Carnap an account of how we use language, and what experiences prompt us to assent to what sentences (i.e., what Carnap would have called the "pragmatic" aspect of language use); "I have not been contending that what Carnap says is mistaken, but only that there are certain prior questions to be considered, and that, while they are ignored, the relation of empirical knowledge to non-linguistic occurrences cannot be properly understood. It is chiefly in attaching importance to these prior questions that I differ from the logical positivists" (Russell 1940, 314, quoted by Pincock [2007, 125]). Pincock's paper gives a very good overview of the philosophical differences between Carnap and Russell, and their development over time.

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10. Which is not to say that Carnap wasn't also a "representationalist" in a certain sense; in fact, he would have rejected both inferentialism and representationalism as reductive (i.e., ultimately ontological) doctrines, and is thus not really comparable with modern inferentialisms (Carus, forthcoming).
11. Kitcher, like Price, discerns a more than superficial kinship between Carnap and Rorty—which would surely have horrified Rorty!
12. From Carnap's (1963, 982) reply to Burks, where he assents to Burks's conjecture to that effect.
13. Further discussion of this document in Carus (2017).
14. For further references see my Carnap bibliography: http://www.oxfordbibliographies.com/view/document/obo-9780195396577/obo-9780195396577-0248.xml
15. Including Stein's own finely detailed studies of Galileo, Huygens, Newton, Maxwell, and various crucial episodes in the history of science, especially relativity and quantum theory; Carus (2013) compares Stein's philosophical history of science favorably to Kuhn's.
16. Friedman's (2001, 47–68, 105–15; 2011, 712–29) argument to the effect that object-level Kuhnian incommensurability (e.g., during scientific revolutions) can coexist with metalevel rationality (at the "pragmatic" level, that is, of metascientific or philosophical debate, e.g., the debate about geometry between Poincaré and Helmholtz as a backdrop to Einstein's introduction of relativity) is a version of this envisaged Carnapian relation between semantics and pragmatics. The metascientific debate belongs, in Carnap's terms, to (mostly descriptive) pragmatics.
17. This is the only purpose of language that philosophers tend to pay attention to. In fact, it seems likely that a completely different use of language not only played a major role in the emergence of language, but continues to be a dominant function of language in most human contexts: its use as a subordinate component in an affective interpersonal dramatization, e.g., to threaten, to ingratiate, to flirt, etc. The literal meaning of the words hardly matters in such contexts. Such "phatic" communication, as Malinowski (1923) called it, obviously has meaning, but the literal meanings of the words employed hardly contribute to the enactive meaning intended by the actor-speaker.
18. As recently as Price (2004a; 2004b), he was still very much on the original Wittgenstein wavelength, and makes clear repeatedly that he sees the identification of the specific social practices and processes that give such notions as "truth" their function(s) are ultimately to be identified empirically.
19. To which Carnap (1963, 913) responded that ordinary language certainly isn't the one we understand best, and whether it is the one we need most depends very much on the purpose.
20. Brandom here appropriates a concept from Wilfrid Sellars, who in turn took it from Carnap, though in the process, as I have shown in some detail (Carus 2004) misunderstanding and distorting it quite seriously.
21. This is not a terribly unusual sort of view; this is not the place to go into details, but no less a figure than Paul Bernays (1955) argued for a similar position at great length in the 1950s as well. A looser variant was suggested by Friedrich Waismann (1946).
22. Which Brandom regards as founded in "hermeneutic understanding" (perhaps echoing Rorty's invocation of Gadamer);

> . . . hermeneutic understanding . . . is a genuine and distinctive kind of understanding, and it is the most basic kind of understanding, in the sense that all other sorts of understanding are parasitic on it and develop out of it. It is the primordial sort of practical discursive know-how: the capacity to engage in an autonomous discursive practice. In particular . . . the sort of algebraic understanding characteristic of mature mathematized sciences . . . is pragmatically dependent on everyday hermeneutic understanding . . . . (Brandom 2009, 46)

23. A number of the contributions to Weiss and Wanderer (2010) express concern about Brandom's heavy reliance on "order of explanation," and wonder about its possible implication of reductionism, esp. those by Kremer and by Fodor and Lepore. Price himself tends to avoid the terminology involving "order of explanation," and when he does use it, as in Price (2004b), it is clearly not intended in the reductionist sense employed by Brandom (see footnote 22); indeed, in section 8 of that paper Price distances himself from this impulse in Brandom.
24. The biological or cognitive-science version of the argument, along Dennett's lines, is clearly empirical, and makes *neither* quasiempirical claims of a necessary dependence based on unsystematic observations of actual colloquial and constructed languages *nor* ontological or metaphysical claims based on some intrinsic dependency, i.e., on the right "order of explanation."

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25. Children have in fact been brought up Esperanto-speaking, e.g. George Soros, but apparently there are no known cases of monolingual upbringing in Esperanto; native Esperanto speakers have also, so far, always learned another language from childhood; see the article "Native Esperanto speakers" in Wikipedia.
26. Which is also one reason why the learnability literature (Pinker, etc.) isn't very empirical.
27. See footnote 22 above. He uses the term sufficiently often that its connotations can hardly be unintended. On the other hand, there are divergent tendencies within the hermeneutic tradition; it seems likely that Brandom has the Gadamer tradition in mind, but the Dilthey tradition (specifically rejected by Gadamer) was more empirically-minded, and a major influence on the founders of sociology Simmel and Weber (Beiser 2011, Chs. 12 and 13).
28. A comprehensive discussion of these issues and a programmatic proposal to resolve them can, however, be found in Carus and Ogilvie (2009).
29. About which Wittgenstein, for instance, would have been very skeptical; it would seem to him that there are as many manifest images as there are human cultures—and that what is hardwired is a predisposition to learn one's own culture's manifest image, not some uniform standard parading as "the" (universal) manifest image; unfortunately Sellars (1962) himself initiated this idea of a single uniform manifest image—and portrays the late Wittgenstein as an important contributor to this idea (ibid., 15)!
30. Though he distances himself from Brandom in certain other respects, Price puts a similar weight on norms of communication, indeed he argues convincingly against Rorty (Price 2003) that a system of norms lacking a norm for truth (Price's "third norm"), beyond just social agreement, is insufficient—yet nowhere even gestures at an acknowledgement that in real life such systems might differ among national or professional cultures or groups.
31. The historical relativity (though not the cultural relativity) of norms seems particularly to be weighing on his mind in this context: "The historicist about rationality. . . points out that the inferentialist takes for granted a set of inferentially articulated norms as an already up-and-running enterprise. But under what conditions are determinate conceptual norms possible? What do we have to *do* to establish or connect with, subject ourselves to, such determinate norms?" (ibid.) But these, surely, are questions social scientists have been asking at least since the eighteenth century! See section 5 below.
32. In that sense, Wittgenstein's notorious objection to Carnap's interest in Esperanto is serendipitously paradigmatic.
33. Brandom (2013, 92) claims that Carnap "of course" embraced "both sorts of givenness" (i.e., both the sensory given and the analytic). But even in the first sketch of the *Aufbau*, a 1922 typescript called "From the Chaos to Reality [*Vom Chaos zur Wirklichkeit*]" Carnap makes clear, as later in the published book, that it is not a matter of anything *being* given in sensory experience, it's a question of *deciding* what should serve as our "given" (i.e., deciding what to use as the building blocks) for the purpose of building up a "reality" (not "reality" but "*a* reality," since there were many different realities one might want to build up from whatever building blocks one decides on, his two main examples being the "reality" of everyday life and the very different "reality" of physical theory). And the point of the book is not to *justify* any particular basis or "reality" (no longer called that in the published book, except in the passages where he specifically indicates he's going to use "realistic language" for readers who prefer that), but to ask "how do we get from whatever building blocks we choose to something vaguely like the world of science or everyday life?" In short, it's a matter of "how do we get there from here?"—not "how do we arrive at scientific reality from a privileged source of knowledge?" There *is no* "*natural* or *intrinsic* epistemic privilege" in Carnap of the sort Brandom (ibid.) alludes to (or portrays Rorty as alluding to).
34. See Carus (2004, esp. final section) for details.
35. To give an example Carnap actually used himself.
36. From this viewpoint, unsurprisingly, Carnap seems a hopelessly unrealistic Pollyanna (Wilson 2012).
37. A speculation I develop at greater length in Carus (2012), to which Wilson (2012) is a reply.
38. Which is to say a Wittgensteinian one, in this respect at least; on the close proximity of Wittgenstein and Vygotsky regarding the role of social practices in individual cognition see Williams (2002, Ch. 10, 260ff.).
39. It became something of a fad for a while, which then passed, and there has been little further momentum in the past few years. Philosophers have played an inglorious role in distracting empirical researchers from their task by spurious metaphysical speculations about the "ontology" of the extended mind (e.g., Clark and Chalmers 1998), while cognitive scientists themselves have tended to get distracted by

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machines as the primary extensions of the individual mind, at the expense of the social networks and social institutions (e.g., most of the essays in Menary [2010]) that Hutchins had put in the foreground.

40. Economists have tended to get distracted from this by certain features of their disciplinary mindset, or perhaps of the sociology of the profession; see the critiques to this effect (largely internal to economics, from different perspectives) by Field (1979; 1981), Wilcox (2008), or Ogilvie and Carus (2014).
41. Threatened with extinction because economic history has now been largely taken over by economists, since historians have lost interest in it, and economic history as done by economists leaves little scope for detailed archival studies of the kind required for this kind of (partly ethnographic) history; see Carus and Ogilvie (2009). The method we there call the "micro-exemplary method" could just as well have been called the "micro-institutional method."
42. Which definition of utility turns out to be relevant in this context—long or short-term utility, utility to individual speakers (which ones?) or some version of group utility (which group?), and so on—would presumably have to emerge empirically.
43. Carus, forthcoming ("Institutions as Computational Systems").

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