In a galaxy long ago and far away, there lived two strikingly different tribes. When stumbling across an unfamiliar object, members of one tribe—call them the Angles—picked it up, squinting in the light, examined it, tried to determine its intrinsic properties through measurement, weighing, and eventually chemical analysis and so on, ultimately attempting to develop precise criteria for distinguishing in a univocal way a lump of one kind of stuff from a lump of another kind of stuff and for distinguishing a genuine instance of a particular kind of stuff from a pretender. And they developed ever more excellent tools and techniques for doing so. When members of the other tribe—call them the Frankendeutschers—happened upon an unfamiliar object, they tended to leave it in place, carefully examining its context, its connections, relationship to, and lines of affinity with the other stuff in its environment—perhaps attempting to imagine how its appearance would be transformed if its environment were altered; they would try to determine its genealogy, its history, the forces that led to its production and so on. They might even ask about their own role in comprising its context. And they—the Frankendeutschers—became increasingly subtle in these sorts of investigation. The questions they raised about the objects of their encounters would generally take the form, “How
does it fit in?” whereas the Angles would more typically ask, “What kind of a thing is it?” And they went on in these typical and distinctive ways until they had to flee their galaxy in an attempt to escape a great cosmic conflagration. The lineal descendants of the first tribe ended up colonizing and settling in England, North America, and Australia, and bore names like Ayer, Devitt, Donnellan, Kripke, Katz, and Putnam. The descendants of the second settled for the most part in France and Germany, and some in Italy, and bore names like Heidegger, Sartre, Irigaray, Vattimo, Derrida, Foucault, and Gadamer. With rare exceptions, the descendants of the Angles and the Frankendeutschers had been unable to talk to each other about anything of importance until there somehow emerged a child of hybrid lineage who, though disowned by both branches of his family, issued Rodney King-like appeals for them to “all just get along.” This child, who grew up to be Richard Rorty, dreamed of a grand conversation in which the Angles, so preoccupied with their lumps, and the Frankendeutschers, with their talk of texts and contexts, could face each other as respectful interlocutors and try to see themselves as occupying positions on a sliding scale differing by degree, rather than fixed points on different sides of a non-negotiable divide.1

Many, if not most, of the recent attempts to bridge this divide have assumed that the bridge is a one-way thoroughfare, whereby tools imported from the “analytic” side are conveyed to the other, “continental,” side of the divide to repair potholes discovered there. I wish to present a case where resources indigenous to continental habits of mind may shed some light on some analytic roadblocks, namely, on the issue of incommensurability as it has arisen in the philosophy of science and also perhaps the distinction between attributive and referential uses of descriptive phrases. I want to use hermeneutics to argue that the embrace of the linguistic turn by post-empiricist philosophy of science need not inevitably run afoul of our intuition that scientific change can be rationally motivated and, consequently, that such a metascientific standpoint does not require the emendations of the so-called new theory of reference. Accordingly, it is the thesis of this essay that once certain crucial distinctions are made, a perfectly respectable account—one avoiding embarrassing incommensurabilities and a disabling relativism—of rational and progressive learning processes can be fashioned using the resources of hermeneutics alone.

1 This fabulation, loosely inspired by Rorty’s essay entitled “Texts and Lumps,” in his Philosophical Papers, Vol. 1: Objectivity, Relativism and Truth, while obviously a caricature, does I think capture some of the salient differences in philosophical styles.
I. The Linguistic Turn in Hermeneutics

In this section, I wish to address some of the consequences, real and imagined, of a distinctive family of views about the relationship between language and the world that animates both hermeneutical philosophy and influential strands of post-empiricist philosophy of science alike. These are views about the nature of linguistic meaning and its relationship to reference. To capture what is salient about these views, one prominent commentator, no doubt inspired by the title of an early collection of Richard Rorty’s, speaks of a “linguistic turn” in hermeneutic philosophy.2

The linguistic turn is a turn from what to what? It originated in a critique of the view of philosophy embodied in the so-called philosophy of consciousness. If philosophical practice was dominated by an orientation toward ontology in Ancient and Medieval thought, then the concern of thinkers from Descartes to Husserl conspired to effect a “bracketing of Being,” one might say, in favor of an epistemological turn to focus on ideas as objects of consciousness. In the philosophies of consciousness, language is relegated to a merely instrumental role; it is conceptualized as a tool for the designation of aspects of the world that are independent of it or for the designation and communication of thoughts that are determinate prior to their being expressed in language. The thinkers collected under the rubric “the linguistic turn” explicitly eschew such a purely designative conception of language. The linguistic turn is therefore a turn away from the philosophy of consciousness and its associated instrumental view of language to one that holds language to be “constitutive” of our relationship to the world in some sense. It is a critique of the view that words are names for independently given ideas, or tags for concepts that have been offered ready made to the mind’s eye. After the linguistic turn, language is seen to segment or carve up, so to speak, the undifferentiated stuff of experience, thus securing both the existence and stability of our concepts. This in turn issues in an emphasis on the world-disclosing function of language, on its capacity to project and express the categories that are constitutive of the world—to institute the kinds of thing there are and what can be meaningfully predicated of them.

Through the critique of Kant launched by Hamann, Herder, and Humboldt, the world constituting power of the transcendental ego was vested in language. This new view of language is central to Heidegger’s and Hans-Georg Gadamer’s hermeneutics. It can be discerned in the early Heidegger’s discussion of being-in-the-world, where the conviction that meaning determines reference assumes the

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following form: The being of an entity is determined by what it is understood as; and understanding is itself eminently practical, for it will unavoidably invoke or be informed by the roles that things assume or play in the repertoire of practices that a particular culture, form of life or life-world sustains; referring is effected in virtue of those practices.

This new view appears perhaps most starkly when Heidegger, in *On the Way to Language*, embraces approvingly the poet Stefan George’s announcement that “[w]here the word breaks off no thing can be”; claims, in “Holderlin and the Essence of Poetry,” that “[o]nly where there is language is there world”; or famously announces, in “The Letter on Humanism,” that “[l]anguage is the house of Being.” It is evident again, when, in *Truth and Method*, Gadamer avers that “[l]anguage is not just one of man’s possessions in the world; rather, on it depends the fact that man has a world at all.”

This linguistic turn has left far-reaching consequences in its wake. Because languages occur in the plural, it has had a detranscendentalizing effect. The fact of the plurality of language games leaves no room for a functional equivalent to “consciousness in general.” The common consciousness and objectivity of experience underwritten by Kant’s transcendental unity of apperception is dispersed into particular world disclosures or into the particular world views that, as Humboldt argued, are embodied in the various historical languages. This has been taken by many to have at least two very significant consequences. One is that the assumption of a single objective world of things that are independent of language is revealed to have no basis because of what has been called the incommensurability of world disclosures associated with different languages. Reference and truth must now be taken to be immanent to language. This implication can be articulated in a number of ways, all variations on the theme that meaning is the condition of the possibility of our access to reference. Referential acts can occur only under the descriptions provided by a language. Language determines that to which we can meaningfully refer, for reference is always to an aspect of the world under a description. (This is what can be called the Fregean dimension of the turn; singular terms refer to objects indirectly through the sense that the term has.) Closely associated with the thesis that meaning determines reference is the thesis of meaning holism. Languages are symbolically structured wholes in which expressions derive their meaning from the contexts in which they figure, from the system of differences in which they function, from their place in and relationships

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to the entire system of which they are a part. So, a second consequence comes to the fore: An uncompromising linguistic turn threatens the intersubjectivity of communication, throwing into question the possibility of agreement, or, for that matter, disagreement about the same subject matter, and issuing also in severe restrictions on translatibility between languages. Humboldt’s assertion that “every language [contains] a peculiar world view” captures nicely the nature of such a thoroughgoing turn.

II. Reservations about the Linguistic Turn from within

This relativistic “fracturing of reason” along linguistic fault lines—while perhaps viewed as liberating in the largely French post-structuralist tradition departing from Nietzsche—is in the context of German philosophy, and particularly within the tradition of hermeneutics, seen as the source of a potential and deeply troubling consequence of the linguistic turn. Thinkers within this tradition as various as Humboldt, Gadamer, and Habermas have found it important to respond to it in some way. It has been argued that the only way out of this impasse is to adopt a designative or direct theory of meaning, that is, one through which we can understand language to refer directly to objects and not only in ways fabricated by the descriptive resources of a given language. This move to recuperate what Rorty has called the world well lost is predicated upon thematizing language’s designative, as opposed to world-disclosive or attributive, function. Only with an understanding of language’s ability to refer to the world in ways not fatally prejudiced by particular world views, it is argued, can we make sense of the way in which language enables the sorts of learning process that Habermas, for example, focuses on, processes that can throw into question the very world views from which they arise.

Among the commentators who are both knowledgeable about, and sympathetic to, the hermeneutic tradition, perhaps none is more explicit in attempting to bring sharply into focus this tradition’s putative epistemological shortcomings than Cristina Lafont. Over two sustained monograph-length critiques and several shorter articles, she has pointed to what she takes to be the inevitable and untenable relativistic implications of hermeneutics. In addition to the issues to which I have just alluded—namely, skepticism about hermeneutics’ ability to do justice to the intersubjectivity of communication across distinct world disclosures and concern about its threat to the “unity” of the objective world—she is especially concerned about what she takes to be a third consequence of the conception of meaning associated with hermeneutics. Having thus abandoned a universalist

perspective on the plurality of world disclosures, this conception of meaning, she claims, cannot provide us with the resources to understand the evolution of knowledge as a progressive learning process.

In the course of his celebrated debate with Gadamer and his explicit critiques of Heidegger, Jürgen Habermas, too, has been quite outspoken about his concern about hermeneutics’ inability to extricate itself from a disabling relativism. Lafont refers to Habermas’ critique of Heidegger in order to convey a sense of what is at stake here. Seeking to address the issue of how we can achieve rational and critical control of the background knowledge that plays an ineliminable role in world constitution, Habermas avers that:

> [t]he linguistic world view is a concrete and historical a priori; it fixes interpretative perspectives that are substantive and variable and that cannot be gone behind. This constitutive world-understanding changes independently of what subjects experience concerning conditions in the world interpreted in the light of this preunderstanding, and independently of what they can learn from their practical dealings with anything in the world. No matter whether this metahistorical transformation of linguistic world views is conceived of as Being [Heidegger], différance [Derrida], power [Foucault], or imagination, and whether it is endowed with connotations of a mystical experience of salvation, of aesthetic shock, of creaturely pain, or of creative intoxication: What all these concepts have in common is the peculiar uncoupling of the horizon-constituting productivity of language from the consequences of an intramundane practice that is wholly prejudiced by the linguistic system. Any interaction between world-disclosing language and learning processes in the world is excluded.

Habermas here implies that acknowledging and demonstrating the connection between the constitution of meaning, on the one hand, and learning processes, on the other, would allow us to place the constitution of meaning itself under the control of universal validity claims.

But Lafont thinks that as long as Habermas too fails to distance himself from the central assumptions of hermeneutics and, in particular, from the thesis that meaning determines reference, as long as he too fails to reject the idea that speakers need to rely “on identical meanings” (guaranteed by the world disclosure inherent in language) in order to talk about “the same thing”—and he does not do so in her view—he will be unable to demonstrate the plausibility of a rational assessment of the disclosures enabled by background knowledge by connecting those disclosures to learning processes. For, as she puts it “if the ‘constitution of meaning’ inherent in language does have the constitutive character of a world disclosure that determines everything appearing in the world, the possibility of

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‘intraworldly learning’ can only be understood as derived from that prior world disclosure (and hence limited by it).” Further, on this view, we could not make much sense of the idea that the collective social subject had undergone learning processes wherein what was an intractable problem for one research tradition had been solved by another, for in order to do so, we would have to be able to identify the same problem across the distinctive traditions. That is, we cannot comparatively assess different complexes of background knowledge in terms of their differential ability to solve problems because each such complex will project its own distinctive set of problems. We will thus be unable to identify problems across such complexes.

A Hermeneutic Account of “Talking About”

Is there anything to this? A necessary precondition of a conversation is that interlocutors be in agreement on the topic of conversation. But what is meant by the expression “sameness of topic”? How do we identify and reidentify a topic as being “the same”? Can it be done by a neutral, extralinguistic inspection? A hermeneutic account would reject this possibility, claiming that we are never in a position to have such access to the topic in itself. Consensus on a topic is always a matter of harmonizing interpretations rather than a pure “seeing” that it is so. Agreement on a topic means that something gets described, responded to, or interpreted in the same way, or in sufficiently similar ways, by both parties. So “identity of topic” means identity to the interlocutors, not identity in itself. The expression “same subject matter” then has no meaning apart from the situated descriptions that refer to it. So the conversational requirement implies that the interlocutors need sufficiently similar beliefs about the topic to be assured that they are talking about the same thing. If there were no overlaps in belief about the topic of conversation, then they would have no basis for assuming they were talking about the same thing. This hermeneutic position would seem to rule out the possibility of our being able to adjudge someone as being completely or entirely and systematically in error about a topic, for any evidence for this would also be

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9 This agreement need not be explicit. It is not that the certainty that a topic is shared is typically itself thematized as a topic in the conversation, though there can certainly be cues that it is not shared, cues that can in turn instigate an investigation to determine whether it is or not. When faced with a surprising or deep disagreement, interlocutors can ask each other if they are referring to an x with the properties 1 . . . n to assure themselves that they are indeed talking about the same thing. The more elaborate is the description which yields consensus, the more confident are the interlocutors that they are talking about the same thing. The more falsifiable is the claim that they are addressing the same topic, the more they can be assured of it if they retain consensus.
evidence that that person was addressing a *different* topic from the one we assumed.

But, it will be objected, if reference is always effected via a detour through a linguistic horizon of meaning with its distinctive set of associated descriptions, then speakers from different hermeneutic horizons will *unavoidably* refer to *different* things and hence will not be in a position to discuss (agree on or disagree on) what may nominally seem to be the same topic. There would seem, then, to be no way to adjudicate incompatible descriptions or accounts of “an object.” It would seem more apt to say that we have two possibly correct descriptions of *different* objects. We would not be in a position to say that one of us has an incorrect description of *the same* object that the other had a correct description of.

The object would *be* just what is referred to by the sum of the descriptive phrases used about it. And, so the objection goes, if we do achieve sufficient overlap of horizons to identify the same object, then there cannot be disagreement about its properties. So the situation that we could not find intelligible is one where there is *agreement* on the object or topic and an adjudicable *disagreement* about accounts of it. It has been argued by Lafont and others that the only way to make sense of the possibility of an interlocutor’s being willing to regard her account of a topic as being an *incorrect* account of the *same* topic that is in dispute is to go beyond what the tradition of hermeneutics provides and supplement it with a theory of direct reference that challenges the assumption that reference is effected only through the detour of meaning, a theory that throws into question the Fregean idea that meaning or sense determines reference.10

The criticism that Lafont raises with respect to hermeneutics is structurally isomorphic to many of the criticisms that have been leveled against the relativism and incommensurability held to be implicit in many post-empiricist accounts of science, Kuhn’s being perhaps the most prominent among them. So a response to this critique of hermeneutics, important in its own right, has much broader significance. Lafont puts it this way: There follows from the hermeneutic conception of language what she calls a strong incommensurability thesis, namely the claim that it is impossible “to compare and evaluate different scientific theories with regard to a single standard of objective truth.”11

And this critique seems to get its bite by reference to the empirical scientific examples considered by Heidegger, from which it is concluded that hermeneutics prevents us from understanding the development of science as a learning process.

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In post-empiricist philosophy of science, a Kuhnian paradigm, or some cognate version thereof, is treated as an analogue to a language. Such paradigms are thought to project distinct physical domains through distinct theoretical languages. Typically, a holistic theory of meaning is also assumed, whereby the meaning of any term, be it theoretical or observational, is influenced by the paradigm’s unique theoretical concepts and meanings. In this case, observational terms would have their meaning wholly determined by their context, their relation to the paradigm’s theoretical terms and commitments. For example, consider Johannes Kepler and Tycho Brahe gazing toward the eastern horizon in the morning. Kepler was theoretically committed to the view that the Sun was an immovable focus of the solar system about which the Earth, along with the other planets, revolved. Brahe was committed to the Ptolemaic picture in which the Earth stood still and the Sun did the moving. To what extent are they observing the same thing? In an important sense, they are not, insists Norwood Hanson, a major architect of this post-empiricist picture of science.\textsuperscript{12} Brahe sees the Sun rising from the horizon; Kepler sees the horizon descending as the Earth rotates on its axis. The observation term “sunrise” has differing meanings for them, he would say.

This encourages us to view proponents of rival theoretical paradigms as being imprisoned within their own observational languages and thus as having access only to the unique observational data that are subtended by those distinctive languages (meaning determines reference). Neo-positivist philosophers of science such as Dudley Shapere and Israel Scheffler offer typical formulations of this view.\textsuperscript{13} Moreover, if competing theories do not share sufficient language or commitments for commonly formulatable data, then they surely lack the common resources for sharing questions about the data. Simply put, proponents of rival paradigms could not converse about the same data; they could neither agree nor disagree about it. Neither could be said to offer a better account of the same data. Lacking access to a common language, such


paradigms cannot therefore be meaningfully compared, it is argued. Critics such as Shapere and Scheffler trace Kuhn’s inability to give an account of science as a rational enterprise to his failure to distinguish sense from reference and to acknowledge that reference can remain stable even as sense or connotation changes.14

III. The Theory of Direct Reference to the Rescue

Theories of direct reference reject Frege’s idea that meaning determines reference, at least as far as proper names and so-called natural kind terms are concerned. Natural kind terms are the common nouns that refer to species or substances found in nature, as opposed to artifacts such as tables and chairs. Direct reference theories hold that the meaning of a proper name or of a natural kind term is its reference, not its sense.15 In an early collection devoted to such theories, it is claimed that they have in common three main features: “[p]roper names are rigid [they designate the same individuals in all possible worlds]; natural kind terms are like proper names in the way that they refer; and reference depends on causal chains.”16 So natural kind terms, they hold, pick out their referents directly. Such a noun, like “water,” is used as a tag that directly designates that substance; we now know it to designate H₂O. The meaning of “water” is the substance water. It is as if the thing itself gets marked with, to use Ruth Marcus’ original term, a tag or label or brand that identifies it as being the thing that it is and to which we refer when we use the word “water.” This is to be distinguished from the indirect route, whereby water would be referred to as that stuff which satisfies the criteria of our conception of water, for example, being a transparent liquid that is potable and so on. As is well known, Hilary Putnam has argued that it is what water really is to which we refer when we use “water,” and thus as our knowledge about what water really is improves, as we learn more about it, we can correct the statements in which “water” appears.17 This, in outline, shows how linguistic acts of referring can, in principle, be connected to learning processes, and they do so only insofar as we reject the idea that meaning determines reference.

IV. Beyond the Theory of Direct Reference

A. How “Direct” can Reference Be?

But theories of direct reference are still controversial; many are counterintuitive. As one commentator observes, before it was discovered in the 19th century that the chemical composition of water is H$_2$O, this account suggests that speakers of English did not know what “water” meant. But—if we train our gaze on the communicative or pragmatic aspects of meaning—it seems apparent that since they were clearly able to use it to communicate in intelligible ways, they did know what it meant.\(^\text{18}\)

There are a number of lines of criticism of the most prominent direct reference theories.\(^\text{19}\) I wish to concentrate on those that highlight the vulnerability of such theories to hermeneutic elucidation and their consequent susceptibility to inscription within the framework of hermeneutics. In what is generally conceded to be one of the founding documents of the modern theory of direct reference, or of what has come to be called the New Theory of Reference, direct reference is not construed as a “substitute program” for indirect reference, but seems rather to have been understood as a complement to the latter. In “Modalities and Intensional Languages,” Ruth Barcan Marcus claims:

\[\text{[t]hat any language must countenance some entities as things would appear to be a precondition for language. But this is not to say that experience is given to us as a collection of things, for it would appear that there are cultural variations and accompanying linguistic variations as to what sorts of entities are so singled out. It would also appear to be a precondition of language that the singling out of an entity as a thing is accompanied by \ldots unique descriptions, for otherwise how would it be singled out?}^{20}\]

So, in her discussion of what can be called the “reference-fixing descriptions” that do the work of singling out entities as things, she suggests that we assign names to things on the basis of the descriptions we use to single things out. She goes on

\(^\text{18}\) Avrum Stroll (2000): 244.

\(^\text{19}\) For example, John Justice, in “The Semantics of Rigid Designation” Ratio XVI (2003): 33–48, argues, pace Putnam and Kripke, that even the bits of language that would seem to most uncontroversially effect their reference directly, for example, proper names and indexicals, have a referent-determining Fregean sense. Taking as his point of departure the embarrassment that direct reference theories face when confronted with the phenomenon of fictive objects, Avrum Stroll, pace Marcus and Geach, rejects the idea that fictive objects cannot be objects of reference and simply denies that proper names are necessarily rigid designators, thus challenging the notion that there is a relevant difference between names and descriptions with respect to referential power; see Avrum Stroll, “Proper Names, Names and Fictive Objects,” The Journal of Philosophy 95 (1998): 522–33.

to speak in terms of “entities being countenanced as things by [some particular] language-culture complex” (emphases mine). What a proper name “tags” is a thing so picked out.21

Marcus implies that the things that we encounter in experience are not neutrally there in a prefabricated mode simply awaiting our encounter. There is no culturally and linguistically neutral prefabricated collection of things of which we can be referentially aware (experience). The objects of reference are singled out by the descriptive phrases that circulate in the variously culturally indexed languages, and such objects are determined with respect to the various semantic differentials that are characteristic of those languages. This would suggest that, even for Marcus, it is the sense of a definite description that singles out entities, that originally fixes the direct referent of a name. So, sameness of reference, for her, is guaranteed by, and can only be guaranteed by, sharing a descriptive language, a shared descriptive language. The direct referring of the name would seem to be, in this sense, parasitic upon the singling out and fixing procured by definite descriptions.

From Marcus’ account, I would hazard to draw the following three conclusions. First, in the “originary” singling out of entities as things, the denoting is presumably effected via the detour of the sense of the definite descriptions, and so, it makes no sense for us to entertain the idea of an “angelic” or extra-linguistic and ready-made inventory of things themselves. Second, language “institutes” the realm of things (not creates them, but confers on entities a particular status, namely, that of being a thing). So tagging, it seems, is predicated upon something’s being made publicly salient and perspicuous prior to the tagging or naming. Otherwise, how is it clear what is being tagged? I grant that this will not in every instance require that a unique description of the to-be-tagged item be available prior to the tagging—one can imagine scenarios where one can simply point and dub, for instance. However, third, it does seem to be the case that tagging is, in general, parasitic upon a thing’s being picked out against the background of an already assumed ontology (a set of commonplace beliefs about what kinds of thing there are). The thing to be tagged must stand out as a definite and individuatable item, as opposed to other possible such items in the local ontology corresponding to a particular language/culture complex.

Now, compare this to Heidegger’s distinction between assertion (Aussage) and interpretation. For Heidegger, meaning, that which can be articulated in an interpretation, is a matter of taking something as something; “meaning” refers to the “existential phenomenon . . . in which the formal framework of what can

be disclosed in ‘understanding and [a]rticulated in interpretation becomes visible’:

The pointing-out [of something, or referring to something, or predicating some property of something] which assertion does is performed on the basis of what has already been disclosed in understanding or discovered circumspectively. Assertion is not a free-floating kind of behavior which, in its own right, might be capable of disclosing entities in general in a primary way: on the contrary it always maintains itself on the basis of Being-in-the world . . . Any assertion requires a fore-having of whatever has been disclosed . . .

So, for Heidegger, too, nomination is founded on disclosure.

In *Being and Time*, Heidegger does not make language per se an explicit theme until after his discussion of assertion and interpretation. And when he does so, his focus is upon what he takes to be language’s constitutive ground, in his words its “existential-ontological foundation.” And that foundation he calls discourse or talk (*Rede*). Discourse is taken by him to be the enabling condition of the articulation of meaning. Accordingly, discourse grounds the hermeneutical “as-structure” of interpretation, which in turn grounds the apophantic “as” of assertion. Discourse, understood as the “articulated whole of significance,” is the world-disclosing vocabulary that first supplies “linguistic beings” with the requisite intelligibility to enact interpretations and make assertions. Discourse names the condition that intelligibility is *publically communicable*. Think of discourse then as the condition of being or the capacity for being a participant in a system of *intersubjectively shared* resources for intelligibility. Dialogue can take place only on the basis of a shared world disclosure. Here, the pragmatic dimension arises; there is an internal connection between the pragmatic or communicative dimension of discourse and its semantic or world-disclosive aspect. The disclosures that discourse constitutes are public disclosures. In attaching a publicly disclosed predicate to a publicly disclosed subject (what is talked about) discourse communicates; an intersubjectively shared world is invoked and articulated. The articulation of intelligibility has the imprimatur of publicity.

There is no reason to think that hermeneutics must deny the distinction between names used as tags and descriptions. In Heidegger’s case for instance, as I have suggested, a thing is encountered as the thing that it is against the backdrop of, or within the context of, our practices, practices which ground meaningful descriptions. Entities are *revealed* as such and such. We can then go on to make

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statements about those things as tagged (the apophantic “as” of propositional discourse). But clearly, for Heidegger, the apophantic “as” is parasitic upon the hermeneutic “as.”

With these considerations in mind, when reading Putnam’s account, particularly his famous “twin earth” scenario in the course of which he declares that the referent of “water” is H₂O, we might find ourselves fighting the urge to say, “yes, but that is merely our settled view” (where “merely” is not intended to have invidious force, for we have no reason to think that anyone will have any reason to doubt its truth, though questions might be raised about its success in mirroring “nature’s joints”). As we shall presently see, we should be forgiven this urge and shall find our predilection vindicated—even in Putnam’s own eyes—by the course of subsequent discussion.

The theory of direct reference, motivated in the first instance in order to render an account of proper names, must, in order to be relevant to scientific description, be extended to natural kinds. But as so extended, such theories have a more problematic standing. As John Dupré points out, that status rests on the strong ontological presuppositions that there are real natural kinds out there, cutting nature at its joints, that natural kind terms pick out. The kinds are taken to be demarcated by a real essence, a property thought to be both necessary and sufficient for an entity to be a member of the kind. Kind terms then are taken to designate structures that are essential features of the referents. It is currently believed that molecular structure is the touchstone for the demarcation criteria and identity criteria of physical substances.

Further, the Kripke–Putnam position holds that ordinary language use involves the intention to refer to natural kinds, such as water and gold, and so that a large class of ordinary language kind terms actually map onto the requisite natural kind. But many distinctions circulated in ordinary language having to do with flora and fauna divide scientific classifications in ways that have little or no biological significance. And this is to be expected because the distinctions codified in ordinary language emerge from the concerns of ordinary, practical life and may well be at cross purposes with the distinctions that serve the interest of scientific classification. The way in which ordinary language organizes the world is dependent upon the projects in which a particular culture is engaged. Practice determines what are relevant similarities and

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differences, and language stabilizes them, makes them stand. The similarities
and differences which ordinary language expresses are thus grounded in the
relationship of things to our needs and interests. Accordingly, there may be
several words for a given thing as scientifically characterized, depending upon
the relationships in which it stands to the interests of a given community and/or
upon the importance to those interests of making finer and finer distinctions.
And, conversely, there may be a single term for a number of otherwise quite
different things as long as they all possess the same significance for a given
community.

Well, we might here say, “so much the worse for pre-scientific, ordinary
language.” But how does the theory of direct reference fare when applied to
scientific accounts of natural essences? The paradigm examples in such discus-
sions are drawn from biology and chemistry. In biology, the species is the usual
candidate for being a natural kind. The philosopher of biology David Hull has
claimed, for example, that species are individuals. But whether species constitute
natural kinds is a matter of more than a little controversy among biologists, and the
species concept itself is notoriously rife with ambiguity. What criterion deter-
mines species membership: interbreeding capacity, morphological similarity, or
phylogenetic affinity? The widely used criterion of capacity to interbreed and
produce fertile offspring, for example, fails to meet the benchmark of essentialism
required by the theory, for it is simply not true that it holds between all and only
members of a given species.28 Here, hermeneutics would seem to have a distinct
advantage over direct reference theories, for it need make no such essentialist,
ontological assumptions.

Putnam’s celebrated division of linguistic labor—between that of the expert
and that of the “stereotype”—entertaining layperson—is a distinction that can be
understood to hold within the context of an essentially Fregean view. That is, it
can be maintained that the distinction between what is internal—what a term
means to a speaker who uses it—and what is external—what is actually referred
to by the term—is not an absolute or categorical distinction but is rather a
relative one. “Internal” refers to criteria of application that an agent implicitly
appeals to in his/her usage; “external” ultimately refers to the criteria that we,
or some relevant group of experts that we endorse, use for determining the
extension of the term, and the latter is, of course, internal relative to us or to
the relevant group of experts. Putnam seemed to want to make categorical use
of this distinction. But, as Rorty puts it, “our present views about nature are

28 On the problematic status of essentialism in the concept of species membership, see also Joseph
LaPorte, Natural Kinds and Conceptual Change (Cambridge: Cambridge University Press, 2004),
pp. 52–62.
our only guide in talking about the relation between nature and our words”
(emphasis mine). 29

Putnam and others believed that we would have to resort to a wholesale
overthrow of Fregean semantics, replacing it with a non-intentionalist, causal
theory of reference to render it intelligible that we can intend to pick out objects
about which many of our beliefs are false (these are the counterexamples that
Donnellan discusses in opposition to the Searle–Strawson criterion of refer-
ence30). But our assessment of how language hooks up with the world can only
take place within the ambit of our present theory of the rest of the world. So our
referring acts can have no “transcendental” guarantee, for, as Rorty puts it, they
would be underwritten by the circularity of our using part of our current theory
to underwrite the rest of it.31 In recanting his “metaphysical realism,” Putnam
himself came to realize the force of this.32 For it is not at all clear where the
Archimedean point from which we could, as Rorty again puts it, “inspect the
relations between [our present] representations and their object” could be. It will
inevitably turn out to be situated within our present set of representations. And
they can change.

In the final analysis, I would maintain, the significance of natural kinds—be
they held to be substances or properties—lies in the role they play in our explana-
tory practices. Natural kind terms then refer to the ontological primitives that are
governed by the laws of nature; natural kinds are the things that are taken to be
subject to the regularities imposed by nomological necessity. So, it is their role in
explanatory accounts, their explanatory value, that gives them their purchase.
Natural kind terms pick out the basic structured constructs that we take to have the
most explanatory salience at a given time. The idea of natural kinds as real
esses, then, stands or falls with the presumed metaphysical necessity of the
explanatory primitives posited in a given explanatory paradigm. And what is
explanatorily primitive can change.

Putnam and Kripke assumed that the salient properties of natural kinds,
noticed, those that determine the most explanatorily primitive factors for a given
kind, for example, being H2O for water, enjoy a metaphysical necessity that is
wholly independent of our beliefs, theories, and attempts at classification. But,

p. 276.
30 Cf. Keith Donnellan, “Proper Names and Identifying Descriptions;” and Saul Kripke, “Naming and
Necessity,” Semantics of Natural Language, ed. Davidson and Harman (Dordrecht: D. Reidel,
31 Rorty (1979): 294–95. Rorty suggests that even here reference, as opposed to merely “talking
what if, for example, it turns out that the primitive microstructure of water that has the greatest explanatory value is not its molecular structure but something else, perhaps a more fundamental primitive “ontology” within a deeper theory? Would a theorist committed to the direct reference view be willing to concede that our current scientists were mistaken about the referent of “water”? Such a fundamental change in scientific sorting categories would force theorists of the Kripke–Putnam persuasion to embrace their fallibilism—no shame in that. But if, in acknowledging the defeasibility of natural kind claims, its adherents nevertheless persist in insisting that there are such kinds with criteria rigidly referred to, even though we do not know yet what they are, such an insistence can get to the point of being gratuitous and ultimately question begging. For it would seem that a Quinean position of being committed to no more ontology than is required for our science to carry out its explanatory mission would be sufficient.

We shall never get outside our system of beliefs about reference. Or, as Putnam himself later came to see, the attempt to adduce non-intentional, causal relations will always be vitiated by the fact that those relationships are simply threads from which the current theory of the world is woven.33 There are no context-free descriptions of reality. Or, as Rorty puts it in summing up Putnam’s revised view: Non-intentional relations are as theory laden as are intentional relations.34 So, the theory of direct reference may be no less susceptible to relativistic scenarios than is the hermeneutic theory that it would rescue. And, indeed, the view that Putnam felt compelled to embrace as a replacement for his earlier view, what he calls internal realism, bears significant elective affinities with hermeneutics.35 The community of scientists that is responsible for determining the extension of a term is itself a community wherein a consensus on identity of meaning has been achieved. So, in this sense, a hermeneutic dimension is unwittingly presupposed even by the theory of direct reference; such theories cannot escape the hermeneutic circle.

B. An Alternative Account

Now, as salutary as Rorty’s pragmatist response to the idea of direct reference is, I think that Rorty nonetheless evinces a tendency to remain captive to the set of alternatives depicted in the Kripke–Putnam picture. That picture implies that we

33 Ibid: 123.
can have intentionalism, on the one hand, or sameness of reference and the possibility of disagreeing about the (same) referent, on the other hand, but not both. It is just that when approaching this fork in the road, Rorty follows the tine not taken by Putnam and Kripke. But the point of this paper is to reject this picture and its false dichotomy by holding out for intentionalism and sameness of reference. Putnam’s response to Feyerabend’s notion of radical meaning variance was motivated, we might say, by the insistence that we retain the conceptual space for leveling the charge of committing the redefinist fallacy, that is, of redefining the things talked about in such a way as to guarantee that what is said about them is true.  

My point here is that this imperative can be accommodated within hermeneutics. We can distinguish the thing meant from competing claims about the thing meant.

The issue is not simply to be, in some global sense, “in the same world” but to have sufficient consensus on the referents to have reason to expect mutual acknowledgment of a mistaken predication. This is at bottom the concern of the theorists of direct reference and why they propose it as a bulwark against relativism, skepticism, and incommensurability. I shall argue that hermeneutics can make this possibility intelligible as well, and without the metaphysical baggage.

Now, as I noted in section II, it does seem to be the case that the hermeneutic position, for conceptual reasons, will never license our being in a position to say that our interlocutor is completely wrong about a given topic, but it seems perfectly able to make intelligible all sorts of adjudicable disagreement short of that. When Gadamer insists that “every conversation presupposes a common language, or, [it] creates a common language,” he means by this that a common way of identifying the topic of conversation must either be at hand or must be created, a description of the topic that is shared, a way of referring to it in descriptive phrases having virtually the same sense.  

One of the problems that will concern us here is to what degree does a common language for the discussion of a topic restrict the scope of possible disagreement about the topic, that is, to what extent can such a common language countenance a genuine conversation. Does the common meaning necessary to establish the referent leave room for the contestation of the referent’s attributes? Can we intelligibly distinguish between agreement on meaning and agreement in belief? In part, as a way of accommodating the possibility of such contestation and such a distinction, I have argued, pace Gadamer, that we should analytically distinguish two stages or two levels at which dialogue operates: the construction of the common language itself, and, second the dialogical interaction that makes use

of, is enabled by, the ongoing processes of metalanguage construction.\textsuperscript{38} The scope of reference that is determined by the necessary agreement on meaning is \textit{narrower} than that of the common referent plus what is additionally predicated of it. Assuming that interlocutors begin with sufficient descriptive overlap to assure themselves that they are indeed addressing the same topic, it is certainly possible that they may \textit{disagree} about further properties of the thing they are talking about.

And we need not stop here; we can go on to develop inferential consequences of the \textit{disputed} predications for an area of experience on which there is \textit{agreement} in order to attempt to adjudicate the dispute. So I would respond to the critique of hermeneutics that we are here considering by pointing out that the linguistic disclosure of the world, or, the thesis that meaning determines reference, does not necessarily mean that adjudicable disagreement about the \textit{same thing} is unintelligible.

I propose then the following account of critical learning processes that accepts the idea that meaning determines reference, that is, that our referring is always an indicating under some description or other. One, assume that the dispute in question is occasioned by two distinct theoretical paradigms (analogous to distinct complexes of background knowledge) that can be understood to project distinct and characteristic objects of reference. Insofar as we look only at the area in which these complexes of meaning fail to intersect, we cannot perform a critical comparison of them—they are simply “talking past each other,” and a certain species of relativism or of incommensurability could be understood to follow. Two, but, insofar as there is a field of commonly projected referents, a world on which they agree, there can be a \textit{common} touchstone for disagreement and comparison. Rival paradigms can share commonly formulatable observational data. For instance, when asked to describe the motion of Mercury as it traversed its solar orbit, adherents of both Newton’s celestial mechanics and of Einstein’s general theory of relativity would issue similar if not identical observation reports, even though the former would interpret its motion as anomalous and the latter would

\textsuperscript{38} On sameness of reference, there are no guarantees, but as I point out in note 9 above, there are constraints. And there may well be cases where the assessment of descriptive/referential harmony may require more than attending to what people say, but also to what they do. Even if our interlocutors do not deploy a vocabulary for picking out a particular referent that is readily translatable into ours, they may well have practices that overlap saliently with those that we associate with the referent. That is, they may treat a class of objects in ways that are \textit{analogous} to the ways we treat a class of things that are of referential interest. So, harmonizing interpretations can involve both what we say and what we do. For further discussion of this idea in the context of meaningful cross-cultural conversation, see my \textit{The Unfinished Project: Toward a Postmetaphysical Humanism} (New York and London: Routledge, 2001), pp. 78–98.
not. And, as I indicate below, this is typically the case. So, my insistence that there can be no linguistically innocent experience by no means implies that there cannot be paradigm-invariant experience.

Three, look for logical implications of claims about the distinctive referents for the field of common referents. And, four, this then allows us to connect the theoretical world disclosures to learning processes undergone with respect to the field of common referents without giving up the idea that meaning determines reference. So, we ask, what are the differential consequences, for the field of common referents, of the distinctive sets of background assumptions associated with the competing theoretical paradigms? What are the inferential claims about the common field made by paradigm T₁ that are disputed by, or are in conflict with, the claims about that field that are derived from T₂? My claim is that some such disputed assertions can be recognized as warranting acceptance while their rivals do not is something that can be acknowledged by proponents of both T₁ and T₂. And I see nothing that would in principle block such mediated comparisons. Thus, for example, when the fossil record and other evidence support the claim that humans and other mammals share an ancestor, this should be dispositive for proponents of both pre-Darwinian natural history and for evolutionary theorists. That is, it should be dispositive independently of the fact that pre-Darwinians and post-Darwinians do not use the term “species” in such a way that it refers to the same entity.

Insofar as meaning is construed holistically, a full account of the meanings of things in the shared realm may exhibit some differences, but as I argue below, there is no reason to doubt that there may still be enough overlap at the core to make this picture plausible. We just need to assume that the overlap is sufficiently robust to guarantee that the entailments of the rival theories for the domain of overlap could be viewed as dispositive for both sides. The domain of overlap must subtend referents of mutually acknowledged salience.

How plausible is this scenario, given the thesis of meaning holism? Let us indicate the region of overlap by Rₘ. Holism would imply that we can draw no absolute distinction between the “observation language” in which Rₘ is articulated and the relevant “theoretical vocabularies,” and the relevant theoretical vocabularies are, by hypothesis, distinct. At the level of Rₘ, the region of overlap, one can argue, as I have elsewhere, that Rₘ can be described with predicates with cross-contextual purchase. Or it can be argued that one can always get down to a Rₘ that does have cross-contextual purchase even if somewhat differently modulated in each context. For example, even though evolutionary theorists and their opponents may use “species” in different ways,

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where it is holistically defined in terms of their respective and competing “theories,” both groups can nevertheless refer to a RM that is understood more neutrally as a collection of distinctive varieties or kinds, about whose nature or definition they could agree. Further, though they would meaningfully disagree on what gave rise to them, both sides could even acknowledge that new kinds have arisen over time. While I do not yet claim to have fully settled convictions about the best way to accommodate holism in a systematic fashion, at least two ways of approaching the issue seem promising to me, both of which would do justice both to the account that I am proposing and to a conception of holism that explains Gadamer’s impatient interjection: “What sort of folly is it to say that a child speaks a ‘first’ word?”

A thoroughgoing, unmitigated global holism might, it would seem, place us in danger of landing on the thresholds of incommensurability and non-intertranslatability. But, one consideration is that a modified holism, one that maintains that the meaning of an expression is not dependent upon, and only upon, the totality of the expressions in a language, but that it is rather a function of a relevant region of expressions—particularly perhaps a region associated with a particular dimension of experience, for example, color—and where relevance is determined by the purposes that are pursued in the use of an expression or by the nature of the practices in which it is invoked (though I have doubts that principles can always be specified for demarcating regions of relevance), would, I think, be a plausible candidate. In this case, expressions located in regions that are treated as being external to the region of relevance could still contribute “overtones” or nuances to the meaning of the expression in question, but they would not be determinative. This bears some similarity to the molecularism of Dummett, but largely because of my doubts about being able to specify demarcation criteria in advance, it should be distinguished from that position.

As for the second alternative, I have elsewhere discussed the concept of social identity as a cluster concept, whereby a particular set of features is understood to constitute one’s social identity, the elements of the set functioning collectively in such a way that any particular element of the set could be contested or revised without resulting in the loss of that particular identity. Few, if any, of those elements, taken singly, would be essential to one’s having that identity. It has come to my attention that John Searle deploys a linguistic analogue to this idea that is quite useful: We refer in our use of “X” to whatever object would make

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40 For a discussion of this example, see LaPorte (2004): 126ff.
most of our central beliefs about X true. So, on this view, interlocutors would not need perfect agreement on the sense of terms in order for them to be treated as co-referring, but only a sufficiently overlapping agreement. And, happily, this is also consistent with what I say in section II about agreement on a topic. If this conception of meaning, which does not make sameness versus difference of meaning an absolute distinction but rather tolerates our thinking in terms of degrees of similarity of meaning, is combined with holism, then problems of commensuration and translation would be mitigated.

One can adduce Davidsonian arguments to underwrite the conviction that there is a level R_M where scientists from differing research traditions inhabit the same world as long as each has reason to think that the other is engaged in rational linguistic activity of a certain sort. Or one can acknowledge the contingent fact that scientists are part of a tradition, of a historical nexus of continuity wherein new theories are acquired with reference to the observational correlates of the previous theories from which they develop or with respect to which rival theories are rivals. I would say, further, that when “we” get down to this level R_M then and only then do we get a structure of attribution or a “taking as” that is (for the time


44 Moreover, it can be argued that such a cluster-of-descriptions view fares no worse than does the causal theory of reference when it comes to blocking drastic shifts of reference across theory change (LaPorte [2004]: 116–18).

Arriving at a position similar to the one I propose above but from a different route, Gilbert Harman and Ned Block also suggest that the holist can avoid the aporetic quagmires of incommensurability and non-intertranslatability “by replacing the dichotomy between agreement and disagreement with a gradient of similarity of meaning” (Ned Block, “Holism: Mental and Semantic”, *Routledge Encyclopedia of Philosophy*, ed. E. Craig [London: Routledge, 1998], Retrieved March 14, 2009, from http://www.rep.routledge.com/article/WO15SECT5). I would go further here by suggesting that if speakers from distinct theoretical contexts were mutually and systematically assured of the similarity of meaning, then it would be unintelligible, except from a third-person standpoint, to suggest that there is disagreement where agreement is presumed. The metric for assessing adequate similarity would be determined by the purposive contexts in which the interlocutors are engaged. This would have the linguistic implication that, as Nelson Goodman has suggested, synonymy designates a similarity relation, one of sufficient similarity with respect to a given purpose or set of concerns.

45 Writing from an explicitly hermeneutical standpoint, Dimitri Ginev argues for the continuity across historical/conceptual change of a shared historical constitution of the theoretical scientific world (*A Passage to the Hermeneutic Philosophy of Science* [Amsterdam: Rodopi, 1997] 62ff). This continuity is assured in virtue of the fact that subsequent theories can be understood to be interpretations of previous ones. Relatedly, Arthur Fine and J. Earman, in “Against Indeterminacy,” *Journal of Philosophy* LXXIV, 9 (1977): 535–38, adduce evidence to the effect that Einstein, in his special theory of relativity, understood “mass” in the same way that it is understood in Newtonian mechanics.
being, at least) unrevisable on the basis of empirical discovery, and it would be so because the framework articulated as $R_m$ would constitute what could be empirical experience. This is what I would call a form of “transcendental intersubjectivism.”

Lafont says that from Heidegger’s hermeneutic view “it follows that there is no absolute truth across incommensurable understandings of being. They are unrevisable from within and inaccessible (meaningless) from without.” Though I might well concede that the account of language provided by Heidegger—in so far as he does not thematize the “strong” intersubjectivism invoked in my account of the mutual forging of vocabularies requisite for what I called topic identification, or what Gadamer considered horizontal fusion—is not adequate for an acceptable philosophy of science, I would have to reply that we can, however, infer from Gadamer’s hermeneutics, from the resources of hermeneutics itself, that there is no clear, bright line demarcating the inside of a horizon from its outside, a line that serves as a non-arbitrary boundary between horizons. And we

46 Unlike some writers who, appropriately enough, are impressed by the notion of the theory ladenness of experience, I do not believe that acknowledging that there is no “language-independent framework of experiences that scientific theories are about,” is necessarily to abet the vitiation of the relative distinction between theoretical discourse and experience (see for example, Steven Vogel, Against Nature: The Concept of Nature in Critical Theory [Albany: State University of New York Press, 1996], p. 128). For, as I have claimed, that there is no linguistically innocent experience does not mean that there cannot be paradigm invariant experience. Or put in a slightly different way, the theories that constitute data are not ineluctably the theories that are at issue in rendering an account of the data.


48 Reflecting more broadly on the hermeneutical concept of tradition: Tradition represents a normative phenomenon in that it determines what can be meaningfully predicated of worldly things. It determines the conditions of intelligibility to which we are subject, what can be said, for instance, without making category mistakes. Analogously to the verificationist criterion of meaning, the structure of tradition does not determine what is true or false, but what sorts of claims are candidates for having truth value of various sorts. So, the truth that shows in a happening of tradition is like the appearance of a logical space, not of a claim about what position in that logical space is being occupied.

I would argue that, ultimately, the concept of tradition, as a determinate context whose limits and determinateness can be specified prior to a hermeneutic encounter, does not do the delimiting work that we might expect of it if it is to make the hermeneut’s insistence that interlocutors “must share the same tradition” meaningful when providing an account of what emerges or results from such an encounter (see Gadamer [2002]: 293, 295). For given the priority of Gadamer’s logic of question and answer, the tradition in which an act of understanding takes place is always constructed, as opposed to found (in such a way that it can be identified before the encounter and reidentified after the encounter). The tradition that, according to Gadamer, I must share with my interlocutor is always going to be, at least in part, the product of the questions that I can see her responses as answers to. Therefore, no matter how exotic or recondite her “actual” tradition may be, I always
need something like this in order to get a strong incommensurability thesis off the

ground.49

If, with Bas van Fraassen and others, we employ the idiom of a generalized
model-based picture of scientific theories, where models provide an interpretive
framework for talking about theories and the models are ultimately understood
to subtend empirical substructures, my proposal can be put somewhat differ-
ently. If models are understood to satisfy the principles of a theory and to
preserve their truth value, then each model can be understood as a structure
that offers an interpretation of the theory that will include substructures that
are candidates for the direct representation of observable phenomena.50 (The
generalized model-based picture can be formulated in a way that is indifferent
to one’s position on the realism/anti-realism spectrum regarding the status of
scientific theories and to whether one holds that the difference between
so-called theoretical vocabularies, on the one hand, and observational vocabu-
laries, on the other, is one of degree or kind.51) In general, scientific theories can
be satisfied by a number of distinct models, so associate with each theory a
distinctive class of models. Now, whenever models of distinct theories overlap,
we can treat the intersection as referring to the world common to the theories,
\( \mathcal{R}_{\text{str}} \), and then proceed as I suggest above. For the area of intersection is the
topos where the \textit{distinctive} theories are making claims about the \textit{same} range of
phenomena.

So, to conclude, we do not need a distinction between indirect reference and
direct reference or, as some philosophers of science would put it, between theory-
dependent meaning and theory-independent meaning to get out of this relativistic
conundrum. \textit{All we need is a distinction between meaning that depends on
a distinctive theory (that is a theory or horizon that is not shared between

\textit{write her into} my tradition or better perhaps, she is always being written into my tradition—or better
yet, we are written into each other’s tradition—in virtue of my unavoidable projection of the
questions that I understand her to answer. Ultimately, I would argue that for hermeneutics, in this
sense, “tradition” refers to any connection that humans can make (the tradition of humanity).
Perhaps for reasons similar to Davidson’s argument that a plurality of conceptual schemes
is unintelligible, for hermeneutics, there cannot be a plurality of traditions. At the very least,
these considerations justify a blurring of the distinction between discourse within a tradition and
discourse across traditions.

49 See also my arguments against this inside/outside metaphor in my \textit{Technology, Time and the
Conversations of Modernity} (New York and London: Routledge, 1995) 95–132 as well as my
argument against there being a difference in kind between intra-contextual discourse and inter-
contextual discourse in \textit{The Unfinished Project}.


interlocutors) and meaning that depends on a shared theory or language. Hence, it is not at all clear that we need to depart from the ambit of hermeneutics to address this problem.\textsuperscript{52}

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\textsuperscript{52} It is essential to Lafont that our understanding of entities acknowledge “that they may be different from what and how we understand them as being” ("Hermeneutics," 282). But does she mean different from what and how we currently understand them to be, or from what we in principle can understand them to be? If the former, then this emendation can easily be accommodated within hermeneutics; if the latter, then it is true that a decisive break with hermeneutics would be required, but is what is implied in this view plausible? Again, she believes that fallibilism requires direct reference. This is but a repetition of the claim that to acknowledge the theory ladenness of data is ineluctably to commit oneself to relativism. But, this simply does not follow as long as the theories being tested are logically independent of the theory that informs the data.

We can distinguish between what can be referred to as more or less observational vocabularies, on the one hand, and as more or less theoretical vocabularies, on the other, though no sharp distinction can be drawn between the two. We may determine what dimensions of experience or logical spaces will be of interest in an investigation of nature, but we do not thereby determine just what position in that logical space nature will turn out to occupy. For example, we might determine that electrical current as measured by an ammeter is a relevant logical space, but we do not thereby determine just what ammeter reading will obtain—we can only make intelligent guesses or predictions about it.

Secondly, it is not clear to me that many post-empiricist philosophers of science do justice to the relative stability of nature at this second or phenomenal level. Unless one adopts a problematic holistic conception of scientific meaning whereby the entire observational language used by a theoretical paradigm to characterize its data has its meaning ineluctably and exhaustively “infected” or determined by the paradigm’s own unique meanings, it does not follow that, as Steven Vogel, for instance, has written, “[i]f scientists see the world differently after a paradigm shift then the very conditions of objectivation themselves would seem to have changed.” Instead, one would have to acknowledge that observation statements can have a relative stability across paradigm changes.

While our conceptions of the empirical world are no doubt informed by prevailing theories about it, such conceptions are relatively more stable than are those theories, or, the scope of agreement about facts of observation is wider than is the scope of agreement about the theoretical apprehension of those facts. To deny this is to deny the obvious fact that there can be disagreement at the theoretical-explanatory level about how to account for facts that the disputants acknowledge. The Hanson-inspired distinction among levels of “seeing as” is also relevant here: Both Tycho Brahe and Kepler see the scene before them as one in which the distance between the Sun and the Earth’s horizon is increasing, while one sees it as the Sun rising and the other sees it as the horizon’s falling away.