



## Beyond Realism and Anti-Realism—At Last?

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## Beyond Realism and Anti-Realism—At Last?\*

Joseph Rouse†

I have long argued, beginning with my first philosophical publication 35 years ago (Rouse 1981), that what is wrong with scientific realism is not realist *answers* to questions to which various anti-realists give different answers. The philosophical problems arise from assumptions shared by realists and anti-realists that are needed to make the questions they are answering seem intelligible, answerable, and pressing.

The realism issue is protean, however. Not only can it be formulated in multiple ways; there are also multiple ways of identifying and rejecting the problematically shared assumptions that both motivate and enable the disagreements among realists and anti-realists. In what follows I will distinguish several informative ways to identify and reject the shared assumptions that sustain the dialectic among realists and anti-realists. Each of these critical approaches correctly identifies a problem that arises in the course of working out a sensible question to which realism or an anti-realist alternative would be an appropriate kind of answer. They nevertheless differ in the depth and insight of their diagnoses of the problem. Put another way, the earlier analyses are best understood as consequences of the subsequent, more comprehensive approaches.

Arthur Fine (1986a, 1986b, 1991, 1996) has prominently advanced a first challenge to all sides of the realist debates in a series of papers advocating the “Natural Ontological Attitude,” by asking what these debates are *about*. For example, they might be understood as advocating alternative *goals* for scientific inquiry (truth, empirical adequacy, instrumental reliability, the advancement of social interests, and the like). Realists and anti-realists attribute such goals to the sciences as an interpretation that “makes better sense” of scientific practices and achievements. Fine offers a trenchant reply: “Science is not needy [for interpretation] in this way. Its history and current practice constitute a rich and meaningful setting. In that setting, questions of goals or aims or purposes occur spontaneously and *locally* (1986, 148).”

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Michael Williams makes a similar argument in epistemology more generally, challenging the belief that “there is a general way of bringing together the genuine cases [of knowledge] into a coherent theoretical kind” (1991, 108-109), such that one can make a general case for realist or anti-realist interpretations of knowledge claims.

A second way to undercut the realism issue is to recognize that it presupposes a substantive commitment to a separation between mind and world, and frames the issue in terms of how epistemic “access” to the world is mediated. Anti-realism takes various forms, corresponding to the forms of epistemic mediation taken as primary: empiricists emphasize that we only encounter the world perceptually; instrumentalists highlight predictive reliability and the fallacy of affirming the consequent; conceptual schemers appeal to the conceptual underpinnings of scientific methods and the systematic inferential relations among concepts; social constructivists account for epistemic authority in terms of social interests, practices, or norms. On this formulation, realists bear the burden of proof against anti-realists, because the opacity of epistemic mediation seems the more parsimonious hypothesis. Realists in turn argue that the possibility of radical skepticism about the real confers *significance* upon their claims. The *possibility* of the pessimistic induction to the eventual falsification of all scientific theories, or that we *might* be brains in a vat, supposedly shows why it is important to demonstrate that at least some of our best theories really are referentially successful and/or approximately true. Realism so construed typically endorses the premises of some form of anti-realism, and then tries to argue for realism indirectly. Thus, Richard Boyd’s (1990) explanationist defense of realism starts from the theoretical mediation of all epistemic access and argues indirectly for the approximate truth of meta-methodologically reliable theories, while entity realism or structural realism seeks to exempt manipulable causal powers or “underlying” structure from the mediational opacity of other aspects of our understanding. The appropriate response to all of these arguments is instead to reject the unargued presumption of a separation of mind from world and the consequent need for mediation, an argument first cogently advanced in the introduction to Hegel’s (1977) *Phenomenology of Spirit* and still not adequately assimilated in much of philosophy.

A third way to dissolve the realism question highlights a problematic commitment to the independence of meaning and truth. Anti-realists are evidently committed to such independence, because they endorse the possibility of understanding what scientific claims purport to say about the world, while denying the kind of access to what the world is “really” like needed to determine whether those claims are “literally” true. We can supposedly only discern whether claims are empirically

adequate, instrumentally reliable, paradigmatically fruitful, rationally warranted, theoretically coherent, or the like. Realists nevertheless agree that understanding theoretical claims and determining whether they are correct are distinct and independent achievements. For realists, it is a significant achievement to determine, for some scientific theory or hypothesis, that *this claim*, with its semantic content independently fixed, is true. If the determination of the truth or falsity of a claim were entangled with the interpretation of its content, however, such that what the claim says was not determinable apart from those interactions with the world through which we assess its truth, then realists would be unable to specify the claims (i.e., the contents of those claims) about which they want to be realists. Anti-realists in turn could not pick out their preferred proximate intermediary (perceptual appearances, instrumental reliability, social practices or norms) without invoking the worldly access they deny.

Donald Davidson (1984) developed a classic criticism of this assumption and the realist and anti-realist positions that presuppose it. Davidson argued that the only way to justify an interpretation of what a claim says is to show that this interpretation maximizes the truthfulness and rationality of the entire set of beliefs and desires attributed to a speaker in conjunction with that interpretation. Otherwise, any attribution of false beliefs to the speaker would be justifiably open to a response that attributes the error to the interpretation rather than to the claims interpreted. Only against the background of extensive understanding of what is true can we also understand the objective purport and content of beliefs and utterances. Davidson rightly concluded that “[n]othing, no *thing*, makes our sentences or theories true: not experience, not surface irritations, not the world...” (1984, 194). A similar line of argument informed Wilfrid Sellars’s (1997, 2007) criticisms of phenomenalism and empiricist suspicions about modal and normative claims. Just as Davidson argued that we can only understand what a speaker means against a background understanding of what is true, Sellars argued that we cannot understand claims about empirical appearances (e.g., “looking red”) unless we understand the relevant worldly properties (“red”) and their counterfactual applicability and normative significance for understanding, justification, and action. These lines of argument undercut what is at issue in debates over realism and its anti-realist alternatives. We can only understand claims about the world as *part of* our understanding of the world, and hence it is not intelligible to presume a grasp of the content of those claims independent of a larger pattern of interaction with and understanding of their intended objects. Understanding the world and understanding what our beliefs and utterances say about the world are not separable enterprises.

I endorse this broadly Davidsonian strategy for rejecting both realism

and its anti-realist alternatives, but the strategy has been difficult to carry through successfully. John McDowell (1984) cogently argued that Davidson's own project undermines its motivating insight by maintaining a systematic distinction between the rational interpretation of conceptual content and causal interaction with the world in perception and action. I have argued in turn (Rouse 2002, 2015) that Brandom's (1994), Haugeland's (1998), and McDowell's (1994) efforts to undertake a similar strategy in a different way nevertheless fail for parallel reasons.

Those arguments point toward a fourth way to express what is wrong with the question to which realism or some form of anti-realism is posed as an answer. The realism debates presuppose an objectionably anti-naturalist account of conceptual contentfulness and justification. Although many philosophers of science advocate realism to fulfill a commitment to naturalism, my arguments show why that aspiration is misguided. Both realism and the various anti-realisms are committed to an irreconcilably dualist rift between the normativity of meaningful and justifiable scientific claims *about* the world, and our causal entanglement within the world. Rouse (2002) shows how the broader debates over naturalism in philosophy, which incorporate the arguments over realism, have led to this unacceptable dualism. Realist and anti-realist interpretations of scientific claims thereby fail to meet an indispensable criterion for any adequate philosophical naturalism: they do not make intelligible how scientific understanding of the world is a scientifically comprehensible natural phenomenon. Rouse (2015) then works out the basis for a more adequately naturalistic account of scientific understanding. I draw upon recent developments in evolutionary biology and philosophical work on scientific understanding in practice to display human conceptual capacities generally, and scientific understanding specifically, as forms of biological niche construction in the human lineage. This account blocks both realism and anti-realism by showing how the contentfulness of scientific claims about the world is worked out as part of ongoing interaction with our developmental and selective environment. Scientific claims and the conditions for their intelligibility are part of that environment, and only acquire meaning and justification as part of our ongoing efforts to articulate that environment conceptually from within. There is no gap between how the world appears to us and how it "really" is for realists to overcome, or for anti-realists to remain safely on the side of those appearances. Scientific understanding instead develops hard-won, partial articulations of the world. Within those conceptually articulated domains we can differentiate locally between what our theories and models say about the world, and whether what they say is correct or in need of some form of revision. Both conceptual understanding and its assessment nevertheless presuppose the kind of access to the world that antirealists deny

and realists seek to secure.

In the wake of these arguments, we should stop asking the questions to which realism or anti-realism would pose answers. Unless they can develop an adequate critical response to these arguments, realists must abandon any commitment to philosophical naturalism. They would instead share with their anti-realist opponents the need to defend their *conceptions* of scientific understanding with the recognition that these conceptions conflict with what the sciences have to say about our own conceptual capacities.

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