1 Preliminaries

‘Realism’ is a term-of-art that is used frequently to describe views in philosophy, and often its application in a particular context is unproblematic. For instance, most will not hesitate to label Berkeley’s idealism an irrealist view of material objects, to be contrasted with our ordinary, pre-theoretic realist view. Or again, the realist about the unobservable posits of our scientific theories is easily distinguished from the irrealist Instrumentalist. And in ethics, most will not hesitate to label Expressivists and Subjectivists as irrealists, distinguishing them from the realist Moorean non-naturalist.1

These are just a few examples. The point I want to make about them now is just that ‘realism’, though a philosophical term, can be applied across a wide range of domains, with a fairly intuitive sense. (This is not to say there are no hard cases.) We can then pose an interesting question: is there a natural, joint-cutting kind that all of these uses of the term pick out? If we choose to answer this question in the negative, several alternatives present themselves. One is to take these uses of ‘realism’ not to be univocal across domains; for example, on this view, we use ‘realism’ to talk about something different when applied to material objects and theoretical posits. Another alternative is to hold that there is some gerrymandered, not-very-interesting referent that is common to all of these uses. I have no direct argument for or against any of these options. But an indirect approach is available. Since there is a prima facie appearance that ‘realism’ picks

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1 Thanks to Allan Gibbard, Ezra Keshet, David Manley, Eliot Michaelson, David Plunkett, Peter Railton, Timothy Rosenkoetter, Kenny Walden, and participants in the “Realism, Objectivity, and Meta-metaphysics” seminar at Dartmouth College for helpful comments and discussion.

1 To fix ideas, I understand these versions of irrealism in roughly the following way. The idealist, following Berkeley (1710), holds that material objects are nothing more than collections of ideas. Instrumentalists such as Duhem (1954) hold that scientific statements are shorthand for statements about the actual or counterfactual properties of instruments of measurement. A Subjectivist, as I will use the term, holds that ethical statements report on some agent’s attitudes of approval and disapproval. (The Emotivist view in Stevenson (1937) satisfies this characterization, but the more canonical version of Subjectivism I will have in mind throughout hold roughly that ‘it is wrong for S to Φ’ is true just in case S disapproves of Φ-ing.) Expressivists such as Gibbard (2003) hold that ethical sentences express, rather than report, attitudes of this kind. Since it is the aim of the present essay to propose a theory of what all of the realist alternatives to these views have in common, I won’t attempt a characterization of realism by way of introduction.
out a theoretically interesting property that is applicable to a wide range of subject matters, we can proceed by asking what the best candidate characterizations of the natural kind underlying our talk of realism are, and asking whether any of them withstand careful scrutiny. If we succeed in turning up a plausible account of this kind, then there is good evidence that there is a natural kind our term ‘realism’ picks out. If no such candidate is forthcoming, we then need to revisit the alternatives.

Before proceeding, a few caveats are in order.

First, we need to be careful to distinguish the present project from that of performing conceptual analysis on a term of art. ‘Realism’ in the relevant sense belongs almost exclusively to the lexicon of philosophers, and bears no straightforward connection to our pre-theoretic vocabulary. All we have to guide our use of the term is our own dispositions and intuitions, which we learned as we became fluent with a term by imitating the usage the term of art by others in our community. An account of realism which simply describes community-wide usage is nothing more than a redescriptions of the linguistic habits of a relatively small community. That might be of some sociological interest, but is no direct philosophical significance.

The project here is importantly different in a number of respects. As I have already mentioned, there is a possibility of failure—there might not be a theoretically interesting natural kind that plausibly counts as the referent of ‘realism’. We aren’t prejudging the question of whether we will be successful in finding an analysis by embarking on the investigation. Conceptual analysis of the term, on the other hand, is much less susceptible to failure; concepts can be highly gerrymandered and disjunctive. Moreover, an attempt at an analysis in terms of a joint-cutting natural kind allows a characterization of realism that diverges to some extent from our intuitive judgments. If, in our final analysis, there is a highly natural kind that provides a close-but-not-perfect fit with our intuitive use of ‘realism’, we might well say that the views properly called “realist” differ from those we initially applied the term to. This divergence would constitute a failure to properly analyze the concept of realism. But if an account of the natural kind that underlies the concept is our target, it is not too surprising if the contours of the kind don’t fit exactly with the concept.

The second caveat is that, in what follows, I will be assuming that a view is realist (or not) primarily in virtue of its metaphysical consequences. This is a natural idea—Berkeley’s idealism seems irrealist precisely because of its consequences about the nature of material objects since they are, according to Berkeley, merely collections of ideas. Similarly for realism about unobservables; part of what makes the realist view objectionable, it is often thought, is that it takes a stance on the metaphysics of unobservables that is unwarranted by our

\[\text{Crispin Wright (1987, 3-4) indicates sympathy with this pessimistic conclusion: “The fact is that realism, as implicitly characterized by the opinions of writers, in whatever area of philosophy, who regard themselves as realists, is a syndrome, a loose weave of separable presuppositions and attitudes.”}\]
epistemological standing. Moorean non-naturalism about ethics is similarly said to be metaphysically too extravagant. So it is quite natural to take our project to be one of asking which metaphysical consequences of a view are necessary and sufficient for realism.\(^3\)

Such an understanding of realism is not, however, universally accepted. Many claim to find additional, non-metaphysical aspects to realism. Some are *epistemic*: Boyd (1989, 181-2) takes realism to imply that our cognitive faculties afford us a means of “obtaining and improving” knowledge in the relevant domain. (Dummett (1982, 55), on the other hand, claims to find in realism a distinctive commitment to the truth of claims “independently of whether we know, or are even able to discover” their truth.\(^4\)) Other characterizations of realism involve *semantic* properties like truth, literalness, etc.\(^5\)

I will proceed in what follows by ignoring these non-metaphysical dimensions to realism. The most straightforward motivation for this is methodological—insofar as it is clear there is some metaphysical component to realism, a characterization that posits additional epistemic or semantic dimensions to realism will thereby be less natural and more gerrymandered. A search for the natural kind underlying talk of ‘realism’ then does best by beginning with a purely metaphysical characterization; other dimensions should be added only if a purely metaphysical conception of realism is unavailable.\(^6\)

\(^3\)Lewis (1984) echoes this idea when he objects to Putnam’s own characterization of the model-theoretic argument in Putnam (1981, Ch. 2) as suggesting the denial of the core thesis of realism. Lewis explicitly says this is because it leaves the metaphysics of traditional realism unscathed:

> [E]ven if the model-theoretic argument worked, it would not blow away the whole of the realist’s picture of the world and its relation to theory […] There would still be a world, and it would not be a figment of our imagination. It would still have many parts, and these parts would fall into classes and relations […] There would still be interpretations, assignments of reference, intended and otherwise. (Lewis (1984, 231))

See also Miller (2003). For a dissenter from this idea, see Dummett (1977, 383), and other citations in Miller (2003, 196).

\(^4\)Strictly speaking, Boyd’s and Dummett’s claims are consistent: we might have good cognitive resources for arriving at knowledge of a most claims in a domain, while *some* of its claims are nonetheless in principle unknowable. Nevertheless, a tempting diagnosis of these divergent emphases is that Boyd and Dummett are latching onto merely accidental features of different realist views.


\(^6\)Alternatively, the epistemic or semantic dimensions might be relevant to realism, but only in virtue of their metaphysical consequences. In this case, we can simply ignore the non-metaphysical detour, and ask directly whether the metaphysical consequences at issue feature in an adequate account of realism.

It is worth noting in this connection that, just I will ignore non-metaphysical dimensions to realism for methodological reasons, I will also ignore approaches that take realism as a metaphysical primitive for similar reasons. (The primitivist approach is suggested by Kit Fine when he talks in Fine (2001, 26) of “the notion of reality as primitive.”) Presumably, it is theoretically preferable to find an account of realism in terms of a metaphysically natural kind we are already compelled to accept instead of simply adding realism to our stock of primitives. If the project of finding a suitable natural kind fails, it is then worth revisiting the question of whether a gerrymandered or primitive
The final caveat is that there may well be specific domains in which use of ‘realism’ has spun off from its general philosophical use, and in these contexts has a specialized meaning. So we should not be that surprised if, for instance, ‘legal realism’ turns out to denote a kind that has little to do with the general philosophical sense of ‘realism’. Of course it would be nice to assimilate the subject of these specialized uses to a core property of realism that applies across domains. The present point is just that we should be prepared to admit the existence of such specialized uses, and that this would not amount conceding defeat in the project of giving a purely metaphysical characterization of realism.\textsuperscript{7}

The aim of the present paper, then, is to find a metaphysical characterization of the natural kind picked out by our general use of ‘realism’ (if any such kind exists). We will proceed from here as follows. §2 outlines three popular accounts of realism in the literature: these are the Existence View, the Mind-independence View, and the Fundamentality View. §3 argues that there are structural features of realism that cannot be accommodated by these views. §4 piles on, adding a further—and to my knowledge, previously unnoticed—structural feature of realism that traditional accounts ignore. In particular, these accounts are hard-pressed to account for the gradability of claims about realism. These objections together are, I think, decisive against the Existence and Mind-independence views. But the situation with respect to the Fundamentality View is different: these objections only cause trouble for views which take give an account of realism in terms of absolute fundamentality, which is the standard approach in the literature. There is, however, another approach in the neighborhood, which instead characterizes realism in terms of degrees of fundamentality. §5 sketches how an account along these lines yields a promising account of the structural features of realism outlined below. §6 concludes by showing how the Existence and Mind-independence accounts, though inadequate, are in many cases good heuristics for settling questions of realism.

2 Three conceptions of realism

There are three main metaphysical conceptions of realism: Existence, Mind-independence, and Fundamentality views. In this section I introduce and elaborate on each.

\textsuperscript{7}Wright points to the same phenomenon, but is not very optimistic about the prospect for separating specialized uses of ‘realism’ from its common core. He says:

Of course, if there ever was a consensus of understanding about “realism”, as a philosophical term of art, it has undoubtedly been fragmented by the pressures exerted by the various debates—so much so that a philosopher who asserts that she is a realist about theoretical science, for example, or ethics, has probably for most philosophical audiences, accomplished little more than to clear her throat. (Wright (1992, 1))
2.1 Existence views

Existence views hold that a theory is realist just in case it entails that entities of an appropriate kind exist. What kind of entity is required is variable: some versions hold that realist theories entail that properties of the relevant kind exist; other versions hold the same for the relevant kind of facts. Existence views are prominent in the literature on ethical realism.8

One instance is found in J. L. Mackie (1977), where he intends his metaethical view, which he calls “moral skepticism”, to be the denial of ethical realism. He characterizes this view in the following way:

[W]hat I have called moral skepticism is a negative doctrine, not a positive one: it says what there isn’t, not what there is. It says that there do not exist entities or relations of a certain kind, objective values or requirements, which many people have believed to exist.9

Mackie’s “negative thesis” is a denial of an existence claim—namely, the claim that certain “entities or relations” exist, and is supposedly in conflict with standard realist conceptions of ethics on this count. This presupposes that the realist view entails the existence of certain things—“values,” as Mackie says.

Another case is found in Shafer-Landau (2003), which offers a broad taxonomy of metaethical positions. The first position is the eliminativist view, which “is represented by error theorists and non-cognitivists. Such philosophers do not believe that there are any moral properties, and believe that all appearances to the contrary are either founded on error, or can be otherwise explained away.” (p. 66) The other options are reductionism, which holds that “moral properties, if they are to exist, must be (in the sense of be identical to) one of these kinds of natural property” (pp. 66-7), and non-naturalism, which rejects “the identity of moral and descriptive properties.” (p. 72)

On a standard classification, only the last two views—the reductionist and non-naturalist views—are the views that are consistent with realism. The eliminativist view, represented by error theorists and noncognitivists, is not. What separates these realist views from others in Shafer-Landau’s taxonomy is that they entail the existence of moral properties. This strongly suggests that Shafer-Landau takes the existence of these properties to be the key ingredient for realist views about ethics.10

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8See also one disjunct of the definitions in Cameron (2008), Devitt (1991), and Miller (2003). Pettit (1991) is more coy: “Realism in any area of thought is the doctrine certain that entities allegedly associated with that area are indeed real.” (Pettit (1991, 588)) He is explicit that one way of rejecting this thesis is to deny existence to the relevant entities (pp. 589-90). But he subsequently discusses other ways to deny realism, which suggests that he would not consider a bare existence claim to be adequate to characterize realism.

9Elsewhere, he says that what is definitive of realist views is that they entail the existence of moral facts (see for instance Shafer-Landau (2003, 15)). Shafer-Landau may either be undecided between one of two Existence views, or may think that they amount to the same thing. The latter view would make sense if one thought that facts are structured set-theoretic entities with properties
These existence-based conceptions of realism about ethics can be thought of as
generalizations on a standard characterization of realism about unobservables in
scientific theories. In van Fraassen (1980), the characteristic claim of realism is that
*there are* electrons and other unobservables posited by scientific theories. (See also
Cartwright (1983) and Fine (1991).) This makes sense in the context of realism
about unobservables: the primary motivation of the irrealist is to avoid what she
believes to be an unwarranted ontological commitment to an unobservable world
electrons, and the way to avoid this commitment is to decline to believe that
they exist. Existence views of realism in other areas are then natural extensions
of this idea. In some cases there are no prosaic entities that are the subject-matter
of a theoretical enterprise. In these cases, the Existence View makes realism a
question of whether the relevant properties exist.

2.2 Mind-independence views

Another common way to characterize realism about a domain is to claim that
all realist views hold the domain to be independent of the mental. Examples of
mind-dependence (and accompanying irrealism) are familiar from the history of
philosophy: think of Berkeley’s claim that ordinary objects are collections of ideas,
or a version of the Humean view of causation on which it consists in nothing
more than constant conjunction plus expectation on the part of observers.

Thought seems especially apt when considering irrealism the ethical domain, as
many paradigmatic instances of irrealist ethical theories enlist mental states of
approval, disapproval, and the like, to play important explanatory roles.

See Goodman (1955, 59-65) for an interpretation along these lines.
One way to articulate this approach is found in Sharon Street (2006). She says:

The defining claim of realism about value, as I will be understanding it, is that there are at least some evaluative facts or truths that hold independently of all our evaluative attitudes.\(^{15}\)

For Street, then, metaethical theories are realist just in case they entail that ethical facts are independent of certain attitudes.\(^{16}\) (Admittedly, Street suggests her characterization should be taken as “stipulative”. But it wouldn’t be a natural stipulation if there weren’t some plausibility to the claim that realism—in a non-stipulative sense—requires mind-independence. It is this latter claim, not any stipulated definition, that will be the focus of the following discussion.)

A Mind-independence view of realism can be extended to other domains in various ways.\(^{17}\) The basic idea is that just as facts about value are mind-dependent if they depend on our evaluative attitudes, so likewise other domains are mind-dependent if they depend on attitudes in some way.

2.3 Fundamentality-based views

A final metaphysical approach to realism proceeds in terms of the notion of metaphysical fundamentality. There is a family of related notions in the literature; these include “Reality” in Fine (2001); “Structure” Sider (2012), “perfect naturalness” in Lewis (1983). Ralph Wedgwood (2007) articulates the relationship between this idea and realism in the following passage:

What exactly is realism? Following Kit Fine (2001) I shall suppose that a realist about the normative is a theorist who says that there are normative facts or truths—such as the fact that certain things ought to be the case, or that it is not the case that certain things ought to be the case—and that at least some of these normative facts are part of reality itself.

The notion of reality invoked here is a notion that has its home within a certain sort of metaphysical project—namely, the project of giving a metaphysical account or explanation of everything that is the case in terms of what is real. If certain normative facts are real, then these normative facts, properties or relations may also form part

\(^{15}\)Street (2006, 110).


\(^{17}\)The “various ways” of spelling this out can be obtained by either (i) specifying different kinds of mental states for the purportedly dependent domain (beliefs, desires, etc.); (ii) specifying whose mental states are at issue (the speaker’s, the ascribee’s, etc.), or (iii) specifying how the dependence relation is to be construed (viz., the difference between modal and essential dependence in Jenkins (2005)). Of course these options aren’t mutually exclusive, and one might combine (say) an ascribee-dependence view with the claim that the dependence is mere modal independence. I will ignore these details in what follows, because I believe that there are cases which are counterexamples to the Mind-independence View understood in any of these ways. See SS3-4 below.
of the fundamental account or explanation of certain things that are the case.\textsuperscript{18}

Wedgwood—and his predecessor Fine—primarily use the term ‘Reality’ to signify the metaphysically privileged layer at which gives “a metaphysical account or explanation of everything that is the case”. For terminological uniformity, I will instead use the term ‘fundamental’. In the sense in which I intend it, then, it is a blanket term for the family of notions employed by Fine, Sider, and Lewis. It stands for a metaphysically privileged or basic category that stands in a privileged, explanatory relationship to other non-basic facts.

Realism about the ethical on the Wedgwood conception is the view that the most fundamental explanation of everything that is the case makes reference, in part, to ethical facts or properties. The ethical features in basic metaphysical explanations of the relevant kind. This conception of realism generalizes easily to other domains: realism in general is then the view that the domain in question is fundamental. The real, in general, is that which which is needed for the purpose of giving basic metaphysical explanations.\textsuperscript{19}

3 Realism and analysis

§2 outlined three prominent metaphysical approaches to realism. In this section I will outline some arguments against each view. In keeping with the methodology set out at the beginning of this paper, I will not simply cite intuitive counterexamples to each view. Rather, I will outline plausible and general structural features which are characteristic of realism. These structural features are highly general and independently plausible; this is a needed check against intuition-mongering with a term-of-art. Moreover, any account that does capture all of these features will have a good claim to not achieving the right results in particular cases by objectionable gerrymandering. To be sure, however, each of these structural features can be motivated and illustrated by reference to particular examples. In particular, each of these examples is a case of a reduction which intuitively is (or is not) consistent with realism about the reduced domain. For example we can compare the structural features with intuitive judgments about whether the Russelian reduction of physical objects to logical constructions of sense-data,\textsuperscript{20} the Lewisian reduction of modality to quantification over maximally complete chunks of concrete spacetime,\textsuperscript{21} and the Logicist’s reduction of mathe-
matics to logic,\textsuperscript{22} are consistent with realism about physical objects, modality, or mathematics. The concern here will not be with whether reductions like these are correct; the purpose of these alleged reductions—correct or not—is to illustrate some structural features of realism.

### 3.1 Structural features

The structural features in question are the following:

**Truth Independence**  Irrealism about a domain $D$ is compatible with the existence of substantive truths about $D$.

**Domain Neutrality**  For any domain $D$, ‘realism’ and ‘irrealism’ can apply non-trivially and univocally to $D$.

**Reduction Compatibility**  For some domains $D$, some reductive views are irrealist about $D$ while other reductive views about $D$ are realist.

I will motivate each of these as central structural features with examples below. For now I will simply make some clarifying remarks about each, and suggest in general terms why each is a plausible structural constraint. **Truth Independence** says that irrealism is compatible with the existence of substantive truths. Just because it is true that Jane is in pain, it doesn’t follow that realism about mental states is true. We can adopt an irrealist understanding of Jane’s pain. **Domain Neutrality** requires that there is a sense of ‘realism’ which applies across domains: one can be realist (or not) about physical objects, mental states, and God. According to **Domain Neutrality** there is something each of these positions has in common. (This is not to say that in addition to this univocal sense of the term, there are other distinct and domain-specific senses as well.) Finally **Reduction Compatibility** says that a reduction of a domain does not thereby imply irrealism. Given a proposed reduction, it is a further question whether the denial of realism follows.

The three prominent characterizations of realism outlined above have difficulty accounting for all of these structural features.

### 3.2 Existence is futile

Readers will be familiar with the distinction between reductions that are “vindicating” versus those that are “eliminative”. At a first pass, the difference is something along the following lines. Vindicating reductive accounts give an informative characterization of the reduced property or domain—they tell us something about the nature of the reduced thing. Other reductions—the eliminating reductions—show us that what we thought we were talking about isn’t really there. Railton (1989, 161) gives an example:

> The successful reduction of H$_2$O reinforces, rather than impugns, our sense that there really is water. By contrast, the reduction of

\textsuperscript{22}Whitehead and Russell (1910)
“polywater”—a peculiar form of water thought to have been observed in scientific laboratories in the late 1960’s—to ordinary water-containing-some-impurities-from-improperly-washed-glassware contributed to the conclusion that there really is no such substance as polywater. Whether a reduction is vindicative or eliminative will depend on the specific character of what is being reduced and what the reduction basis looks like.

This is an intuitive difference—it really does seem like, upon learning of the relevant reductions, beliefs about polywater are discovered to be mistaken, while no widespread error is revealed for beliefs about water. The Existence View claims that since the eliminating reduction of polywater entails that there is no polywater, irrealism about polywater can be read off from ordinary claims about whether polywater exists. Thus it denies Truth Independence.

But prima facie this difference is superficial at best. It would be quite natural to go on, after learning of the relevant discoveries, to speak as if polywater does exist, but only fails to be the natural kind we thought it to be. We could say things like the following:

P1 There is polywater in this glass, since it contains water-plus-impurities-from-improperly-washed-glassware;

P2 Polywater is a very unnatural, gerrymandered chemical kind, and does not have any place in good chemical explanations.23

The above speeches would make for serious problems for the Existence View. For we are clearly not realists about polywater, even if we accept P1 and P2. Their intelligibility is a consequence of the Truth Independence feature outlined above. But the Existence View is incompatible with it.24

It is worth digging deeper into whether proponents of the Existence View can mount a defence. Perhaps P1 and P2 really are unintelligible, and, more generally, Truth Independence is not a structural feature of realism. The natural way to cash this claim out is to say that the terms ‘water’ and ‘polywater’, like many terms with a life in a theoretical discipline, are associated with a “theoretical role” that determines as referent the property that best satisfies a set of theoretical constraints. These constraints include the observed properties of the relevant substance (that it is wet, clear, drinkable, etc.), the role it plays in explanations (that salt dissolves in it), among other things. The important part here is just that while these theoretical constraints tolerate some divergence in a candidate referent, if the best candidate strays too far from the intended role, the term fails to refer.25

23 I do not claim that we do speak this way, only that we easily could make these claims using our word ‘polywater’.

24 Some writers—for example Dworkin (1996)—explicitly reject Truth Independence. Their rejection of this structural feature has wide-ranging consequences which haven’t been noticed. Some of these are sketched below.

This observation gives us an existence-based explanation of the difference between the water and polywater reductions. The water reduction supplies a property (H_2O) that sufficiently approximates the theoretical role associated with ‘water’; the polywater reduction supplies a property (water-plus-impurities) that does even approximate the theoretical role associated with ‘polywater’. Truth Independence is still false on this revised version of the Existence View—irrealism about polywater can be read off from the falsity of statements associated with the theoretical role for ‘polywater’.

Some care is needed in making the case that water- and polywater-reductions do differ in the truth of associated role-statements. Railton notes that even the water reduction doesn’t provide a perfect satisfier for the relevant theoretical role—“[e]ven the reduction of water to H_2O was in part revisionist . . . of both common-sense notions and previous chemistry”^{26}—the difference is, the polywater reduction is much more revisionary.^{27} But the hope for the revised version of the Existence View is that we can give an adequate specification of how much role-satisfaction is needed for realism, and thereby give a principled explanation of why polywater does not exist. If the theoretical role associated with ‘polywater’ goes unsatisfied, ‘polywater’ does not refer, and hence it isn’t true that it is in a glass containing water-plus-impurities. P1 is, despite surface appearances, incoherent. The story can easily be told for P2, and also extended to other domains: Mackie, for instance, is naturally interpreted as claiming that there are no properties that come close to satisfying the theoretical role for ‘wrong’. This is because the theoretical role for ‘wrong’ requires that its satisfier be objectively prescriptive, and nothing (according to Mackie) comes close to satisfying that role.^{28}

To sum up, the most promising version of the Existence View denies Truth Independence by holding that realism is straightforwardly a matter of the truth of associated role-statements. This is the Realism-Truth Connection thesis:

Realism-Truth Connection A reduction expressed by "t reduces to b" is incompatible with realism just in case b substantially fails to satisfy the theoretical role associated with t.^{29}

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^{26}Railton (1989, 161)
^{27}Here is a sketch of a story about why the reduction is too revisionary. Presumably those who originally introduced the term thought they discovered a new, interesting form of water with a molecular basis similar to that of water. This supplies a theoretical role for ‘polywater’, one which places requirements on the molecular structure of its referent. (Compare, for instance, the difference between the gerrymandered molecular basis for polywater, and ^2H_2O, or “heavy water”. This has a molecular basis similar to that of water; scientists presumably thought they were discovering a similar molecular variant of water when they coined ‘polywater’.) But upon discovering that the “substance” in question was really just water-plus-impurities, we learn that the theoretical role isn’t even close to being satisfied; a substance that is water-plus-impurities does not have molecular basis similar to that of water.
^{28}Thanks to David Manley for suggesting this reading of the Existence View.
^{29}Of course there are questions about implementation. How much of a theory needs to be false before existence claims go false is a question that needs to be asked, and difference answers are possible. In making the case that certain mental states cannot be given a vindicating reduction, Paul
Even this advanced reading of the Existence View faces serious structural problems. Realist theories, we have noted, can be somewhat revisionary—the reduction of water to H$_2$O, as Railton notes, did not leave prior theory completely intact. But even highly revisionary theories can be realist, and REALISM-TRUTH CONNECTION wrongly classifies them as irrealist. For example: a Vitalist view of living organisms (such as can be found in Bichat (1801, §1)) is substantially revisionary in view of the theoretical role we at present associate with ‘life’. Quite plausibly, the role actually associated with ‘life’ is one that includes the claim that life is explained by biological and chemical processes. Hence the life-role requires that its satisfier not be an unexplained, primitive life force. The Vitalist view does hold that life is explained my a primitive life force, and thus fails to qualify as realist according to REALISM-TRUTH CONNECTION. The role-statements associated with ‘life’ are (largely) false on this view, but the view is realist. Its vices stem in part from the fact that it is unnecessarily realist about life, giving it a basic explanatory role when none is needed.

This isn’t an isolated example, either: a Thomistic view about value identifies goodness with metaphysically foundational facts about teleology (in this case, with facts about the ends necessarily sought by members of a kind).\textsuperscript{30} It is another highly realist but—judged by our modern non-teleological picture of the cosmos—is a substantially revisionary account. In short, whenever the revision goes in the direction of giving a too much of a fundamental explanatory role to the reduced property, we will have a case of a revisionary view which is nonetheless realist. Such views are counterexamples to REALISM-TRUTH CONNECTION, as they suggest that an understanding of realism tied to the truth of the associated role-statements is bound to fail.\textsuperscript{31}

\textsuperscript{30}Churchland (1981, 67) suggests that this is because mental states are like wrongness is according to Mackie—nothing comes close to satisfying the theoretical role associated with mental states. Thus he says:

\begin{quote}
Eliminative materialism is the thesis that our common-sense conception of psychological phenomena constitutes a radically false theory, a theory so fundamentally defective that both the principles and the ontology of that theory will eventually be displaced, rather than smoothly reduced, by completed neuroscience.
\end{quote}

But this may be too strong for a notion of elimination that is tied to irrealism. Some versions of Constructivism about ethics are fairly good at capturing our pre-theoretic conception of ethical properties (cf. Street (2008)). But these theories are irrealist. So there is an issue of resolving exactly what is involved in “substantially” failing to satisfy a theoretical role for those who want to use REALISM-TRUTH CONNECTION to defend the Existence View. I will not press the issue here, since I believe that there are other, more pressing problems with the view.

\textsuperscript{31}Another objection to the REALISM-TRUTH CONNECTION-based view comes from the idea that the distinction between vindicating and eliminating reductions itself fails to be substantive. Quine (1960, 265) suggests something along these lines when he says:

\begin{quote}
For a further parallel consider the molecular theory. Does it repudiate our familiar solids and declare for swarms of molecules in their stead, or does it keep the solids and explain them as subvisibly swarming with molecules? […] The option, again, is unreal.
\end{quote}
The question of whether realism about a domain holds cannot be answered simply by looking at ordinary claims about the existence of the domain (or from the truth of the associated role-statements). The project of finding general connections between ordinary claims and realism is an unpromising one; it is possible to adopt an irrealist construal of domains that exist (e.g., polywater), and realist views might entail radically false claims about a domain (e.g., life). It is worth investigating whether competitors to the Existence View, which retain Truth Independence, can do better by not giving up on other plausible structural features of realism.

3.3 Too much mind-independence

On the Mind-independence View, only views that entail a domain to be mind-independent are realist. This view violates the Domain Neutrality constraint. The violation is most obvious when we consider the reductive Behaviorist view of mental states—a paradigmatically irrealist view of the mental. Mental states, according to the reductive Behaviorist as I will understand it, are just are disjunctions of behaviors or dispositions to behave. The mental state pain on this view reduces to either clutching one’s arm, or screaming, or ...(the disjunction of behaviors will need to go on for quite some time in order for the Behaviorist view to be truth-conditionally adequate). Similarly for other mental states. The resulting view is intuitively an irrealist one.

But it also satisfies the conditions imposed by any reasonable construal of mind-independence. That Sam is exhibiting the behavior of (say) clutching her arm doesn’t depend on the mental. And on the Behaviorist view, Sam’s pain just is an occurrence of the behavior of arm-clutching. So on the Behaviorist view, Sam’s pain is an occurrence that is as objective and mind-independent as any. The Mind-independence View makes Behaviorism a realist view about the mental, and more generally, makes realism about the mental trivial. This is a rejection of Domain Neutrality. The Mind-independence View is highly questionable on this score.32

32 We might explicate Quine’s thought as follows: it is indeterminate, or perhaps a matter of pure linguistic convention, whether we associate with ‘solid’ a theoretical role that is adequately satisfied by subvisible swarms of molecules. What exists isn’t in question: it is swarms of molecules. But whether this is sufficient for the truth of the sentence ‘solids exist’ is just a matter of whether we choose to associate a more or less strict theoretical role with ‘solid’. The truth (or falsity) of this sentence doesn’t reflect a deep metaphysical fact; just a choice about our language.

On this way of explicating Quine, his comments suggest that talk of existence isn’t sufficiently metaphysically robust to capture the metaphysical dimension to realism.

32Cameron (2008) defends Mind-independence views from objections from realism about the mental. Following a distinction from Jenkins (2005), he says that realism should be understood in terms of “essential dependence”: irrealism about a domain holds that its “existence or essence is constitutively dependent on mental activity.” (Cameron (2008, 7)) As Cameron notes, this distinction helps with avoiding the allegation that realism about the mental is trivially false, since it is trivially true that the mental depends on the mental. Cameron’s point is that this doesn’t follow when ‘depends’ is glossed as essential dependence: a mental entity can essentially depend on a non-mental event.
Failures of Domain Neutrality will arise for other broadly mental phenomena. The account of syntactic principles, or “grammars”, in Noam Chomsky’s Knowledge of Language is one on which they are accurate descriptions of a psychological state realized in the brains of competent language-users. Grammars are, in Chomsky’s terms, “psychologically real”. This is a distinctive and strikingly realist position about grammars. A competing, and less realist, view of the subject matter holds grammars merely to be the simplest set of axioms whose theorems are all and only the grammatically acceptable sentences. The Mind-independence View fails to find any relevant difference between these views. Both views make grammars mind-dependent, and hence there is no difference in realism. Irrealism about grammars is trivial. This is another implausible result which falls out of the failure of Domain Neutrality on the Mind-independence View.

Some authors such as Miller (2010, §1) claim that the Mind-independence conception of realism cannot fail to account for realism about psychological phenomena precisely because the dependence is trivial. The Mind-independence View, these authors claim, should be understood as holding that what makes theories irrealist is that they entail that their domain to be non-trivially mind-dependent. But adding a non-triviality constraint for irrealism threatens to make ‘realism’ apply with different senses to different domains: whatever makes Behaviorism an irrealist view of the mental will be different from what makes, say, Subjectivism an irrelalist view of ethics. The univolality condition in Domain Neutrality is violated.

One clarifying remark about kinds of dependence is in order here. There is of course one sense in which grammars are mind-independent even on the Chomskian view: whether a brain implements a particular grammar does not depend in any sense on what anyone thinks about the brain or grammar. Facts about grammar are, we can say, assessor-independent. But assessor-independence isn’t the kind of mind-independence at issue for realism. Even a Subjectivist can maintain that ethics is independent of the minds of assessors; whether Sally ought to murder, on the Subjectivist view, independent of whether anyone thinks she ought to murder. Instead, it depends on whether Sally disapproves of murder, and whether Sally disapproves of murder is a fact that holds independent of anyone’s opinions about her mental states. Hence whether it is wrong for Sally to murder, on the Subjectivist view, is an assessor-independent fact. The reason why the Mind-independence View seems to get Subjectivism right is that, according to Subjectivism, whether it is wrong for Sally to murder constitutively depends

But the problem posed by the Behaviorist remains, even with this distinction in place. If we explicitly add that, according to the Behaviorist view, the mental constitutively depends on non-mental behaviors, the view remains intuitively irrealist. The true worry for Mind-independence accounts applied to the mental, then, isn’t that realism is too hard to come by; rather, it is too easy, letting even the Behaviorist in.

33 See Chomsky (1986, 39), and Soames (1989) for competing sides of the debate.
34 See also Reynolds (2006, 481) and Rosen (1994, 286-9) for more discussion of the relationship between mind-independence and realism.
on Sally’s mental states.\textsuperscript{35} Thus the motivations for the Mind-independence conception of realism require that it be taken in the constitutive sense. The arguments in this subsection are designed to show that realism is not a matter of whether a domain constitutively depends on the mental, since the Domain Neutrality constraint is not satisfied on this view.

3.4 Fundamental failings

The Fundamentality View holds that realist views about a domain are just those that take the domain to be most fundamental. This view nicely accommodates our first two structural features. It retains Truth Independence because ordinary claims about a domain do not entail whether the domain is fundamental or not. It is an ordinary, prosaic fact that Sally is in pain, but whether this fact is part of fundamental reality is not settled by ordinary claims about pain alone. And it accepts Domain Neutrality since any domain (including the mental) might, or might not, be fundamental. These structural advantages are bolstered by reflection on certain examples. By analyzing mental states in terms of behaviors, the Behaviorist view entails that mental states are not most fundamental. And, by analyzing wrongness in terms of speakers’ attitudes of disapproval, the Subjectivist view entails that wrongness is not most fundamental. Some thing is more fundamental than each, namely behaviors or attitudes of disapproval. They are both irrealist views, as the Fundamentality View predicts.

But this way of getting the right results in some cases for the Fundamentality View gets them for the wrong reasons: any analysis of a domain will entail that it is not fully fundamental, and hence will be an analysis that entails irrealism about the analyzed domain. There are plenty of examples of analyses that are consistent with realism.

Here are two. An Identity Theorist such as Place (1956) reduces mental states by identifying them with neurophysiological states. Hence, according to the Identity Theorist, pain is not most fundamental; some neurophysiological state is more fundamental than it. Likewise, the view of moral properties like wrongness presented in Railton (1986) is one on which they reduce to facts about what promotes human interests from the “social point of view”. Hence human interests are more fundamental than moral properties. But both views are intuitively consistent with realism—Railton even presents this view in a paper called “Moral Realism”.\textsuperscript{36}

These examples illustrate the failure of our third structural feature of realism on the Fundamentality View: it cannot accommodate Reduction Compatibility. Any reduction of a domain will, by the logic of fundamentality, entail that the domain is not fundamental. The Fundamentality View will classify the domain as

\textsuperscript{35}Cameron (2008) and Jenkins (2005) both construe mind-independence in this way.

\textsuperscript{36}Readers familiar with that paper will note that Railton acknowledges on pp. 200-1 that his view lacks some of the characteristic features of realism (though he nevertheless claims that it resembles realism enough to deserve the name). I will return to the question of how realist Railton’s view is in later sections. But as a purely structural point, it would be highly surprising if Railton’s view failed to qualify as realist simply because it is reductive in character.
irrealist. This is a rejection of Reduction Compatibility, and as this structural feature is quite plausible, alternatives to the Fundamentality View should be considered.

It is worth mentioning as an additional point that certain moves to avoid this result will be unhelpful to the Fundamentality theorist. It might seem promising to adopt a different approach to the relationship between reduction and fundamentality. For instance: begin with the idea that there are some fundamental terms: perhaps those standing for basic entities and properties such as ‘quark’, ‘spin’, etc. A fundamental fact, we can then say, is one which can be specified with fundamental terms only. Facts about the Identity Theorist’s reduction basis will, presumably, be fully fundamental since they can be specified using the relevant microphysical terms. The Fundamentality theorist might then add that reductions are identities—to reduce the fact that Sally is in pain to the fact $F$ is just to claim that the fact that Sally is in pain is identical to $F$. It then follows that facts about mental states are, according to the Identity Theorist, fundamental.\footnote{See, for instance, Sider (2012, Ch. 7) for a similar idea.} This approach to reduction is available to the Fundamentality theorist and, if she adopts it, she can claim that some reductions are compatible with realism. The problem, however, is that a fourth structural feature on realism is just as plausible as Reduction Compatibility. We can call this fourth feature Reduction Independence; according to it, a reduction of a domain does not entail realism about the domain, some reductions in fact imply irrealism about the reduced domain. Reduction Independence is quite plausible; Behaviorism as sketched above provides one example of a reduction of mental states is not realist about mental states. But the revised version of the Fundamentality View captures Reduction Compatibility at the expense of Reduction Independence. For the revised logic of reduction will apply to any reduction and, as a result, realism will follow for any reduced domain—including the Behaviorist’s mental states.

4 An additional structural feature

The previous section focused on the relationship between realism and reduction to show that none of the §2 views are plausible metaphysical characterizations of realism. Each fails to capture a plausible structural feature of realism. This suggests that none of the existing proposals capture what realism is and, more pessimistically, that there might not be anything the term ‘realism’ in the philosopher’s mouth picks out. The present section adds an additional structural feature to this list, and thereby strengthens the case for the pessimistic conclusion: the more structural features that a referent for ‘realism’ needs to satisfy, the more plausible it is that there is no very natural kind that ‘realism’ picks out. This is the gradability of ascriptions of realism. More precisely, the following is an additional structural feature of realism:

Gradability For some theories $T$ and $T^*$ about a domain $D$ which are both realist (or both irrealist) about $D$, $T$ can be more realist about $D$ than $T^*$ is.
Accommodating Gradability as a structural feature of realism points the way forward for developing an account that maintains all of the structural features of realism. This account (which I will outline in §5) modifies the Fundamentality View and treats realism primarily in terms of relative and not absolute fundamentality. But first, the case for Gradability as an additional structural feature of realism needs to be made.

Some judgments about realism can be graded in form: that is, it makes sense to say that view A is more realist than B, without committing to the ungraded claim that A is realist and B is not. (Compare: Bill might be taller than Bob, without its being the case that Bill is tall and Bob is not.) Modality provides an example: consider first a fictionalist view about modality, an example of which can be found in Rosen (1990). Such a view holds that

Possibly I have red hair

is false on its most natural interpretation, since on this interpretation it says that there is a possible world where I have red hair, and (according to the fictionalist) possible worlds do not exist. But as a consolation, the fictionalist says that it can be appropriate to assert such sentences; the related claim

According to the fiction of possible worlds, there is a possible world where I have red hair

is true, and unembedded modal utterances convey the same information. The situation is analogous to ordinary statements about fiction: the sentence

Holmes lives at 221b Baker Street

is literally false (Holmes doesn’t exist); but it can be asserted, as it conveys the information encoded by the true sentence

In the Sherlock Holmes fiction, Holmes lives at 221b Baker Street.

The fictionalist view is an irrealist one. There are various competitors. One is Lewis’s so-called “modal realism” from Lewis (1986), which analyzes modal claims in terms of quantification over maximal chunks of concrete spacetime. On the Lewisian view, ‘possibly I have red hair’ is literally true, as there is, given the Lewisian ontology, a concrete chunk of spacetime where a counterpart of mine has red hair. This view seems strikingly realist when compared with the fictionalist view described above.

The gradability of judgments concerning realism about modality comes into focus when we consider a third view of modality on which it is un reducible. Views of this kind are found in Adams (1974), Plantinga (1978) and Stalnaker (1976), the details of which need not concern us here. All that matters is that where the Lewisian view quantifies over a concrete chunk of spacetime in analyzing ‘possibly I have red hair’, the present views use a modal term to specify the
domain of quantification, and deny that it can be paraphrased away. Proponents of this view have claimed that they, and not Lewis, deserve the honorific ‘realist’ when it comes to modality. Here is Plantinga:

Lewis is a modal realist and/or a realist about possible worlds in approximately the sense in which William of Ockham is a realist about universals: namely, not at all.\footnote{Plantinga (1987, 189)}

Of course there is something in the neighborhood with respect to which Lewis is a realist, and a pretty unusual and interesting thing at that: a plurality of maximal objects […] Lewis is certainly a realist of an interesting kind, but what he isn’t is a modal realist.\footnote{Plantinga (1987, 213, his italics)}

The question of primary interest here is not whether Plantinga is right. Instead what deserves attention in Plantinga’s claim is that the nonreductivist about modality can plausibly claim that her view is more realist about the modal—after all, where Lewis finds modal locutions to be eliminable in favor of quantification over concrete spacetime, the nonreductivist insists that the modal locutions are not eliminable at all. This is quite an intuitive view—whatever features make the nonreductivist view realist are present to a greater degree in the Lewisian view than in the fictionalist view. Imagine being someone who is unsure whether the Lewisian view is realist or not. This uncertainty would not preclude one from knowing something about the relationship between the three views: one could still say that Lewis’s view is and less realist than the nonreductivist’s and, for similar reasons, more realist than the fictionalist’s.

A binary distinction between those views which are ‘realist’, and those which are not, cannot adequately describe the situation. There is a difference in realism between the Lewisian and nonreductivist view, but with the fictionalist view in the offing, we see that this difference cannot simply be captured by saying that the nonreductivist view is realist, while the Lewisian view is not. Such a statement might well be true; it just doesn’t capture the full picture. Simply calling the Lewisian view irrealist would fail to distinguish it from fictionalism. But surely there is a difference, since only one view allows that possible worlds exist, and that modal claims are straightforwardly true. Calling the Lewisian view realist, on the other hand, would blur the distinction with Plantinga-style non-reductive views, as only the latter posits primitive, unreduced modality. The situation is markedly improved by giving up on a simple binary distinction between what is real and what is not; we can then say that the Plantingian non-reductivist is more realist about possibility and necessity than her Lewisian counterpart. And the Lewisian is more realist about the relevant notions than the fictionalist is. Insofar as we have a grip on the features picked out by our talk of “realism”, it would seem that they come in degrees.

\footnote{Plantinga (1987, 189)}\footnote{Plantinga (1987, 213, his italics)}
A graded notion of realism is needed in other domains as well. Moorean non-naturalism about ethics is clearly a realist view, and differs in this respect from Subjectivism. But reductivist views such as those found in Railton (1986) and Schroeder (2007), which place objectivity-inducing constraints on how desire-like states determine ethical facts, appear to differ in some relevant respects from both views. For similar reasons as before some of these distinctions are missed if we use only a binary distinction between realism and irrealism.

Adding Gradability to our stock of structural features of realism has an additional benefit. It allows for a simple explanation of apparently deviant uses of the binary term ‘realism’ in the philosophical literature. For most gradable terms, differences in context of use can affect whether application of the gradable term is appropriate or not. For instance with ‘loud’ the following speeches are perfectly intelligible:

That music is loud; I can’t hear the person next to me speaking.

That music isn’t loud; we couldn’t hear it at all when the train went by.

It is clear that what is going on in this case is something like the following: ‘loud’ is used to indicate that something exceeds a contextually supplied threshold for volume. The first utterance takes the threshold to be the volume which would makes normal conversation difficult; anything is loud which exceeds this threshold. The second utterance attempts to shift this threshold: by making salient the volume of the recent train passing by, it sets a higher standard for the volume something has to be in order to count as loud.40

If there are degrees of realism, then the binary ‘realism’ can be, and often is, intelligibly used with different thresholds in mind.41 Plantinga’s claims about modality provide one instance. While Lewisian reductivism is an account on which many ordinary modal claims come out as true (and hence is to be distinguished from fictionalism), it nonetheless leaves modality out of the fundamental level. Plantinga insists that the Lewisian view is irrealist about modality on these grounds; this is plausibly a case where ‘realism’ is used in accordance with a very strict threshold, namely a threshold which only nonreductivist views meet.

A similar pattern appears in talk of realism in ethics. Thomas Nagel (1989), for instance, says

[I]f values are objective, they must be so in their own right and not through reducibility to some other kind of of objective fact. They have to be objective values, not objective anything else.42

In a similar vein, David Enoch (2010) describes ethical realism in a way that rules out the reducibility of the ethical, characterizing it as follows:

40See, for instance, Kennedy (2013) for discussion.

41The following examples are due to Mark Schroeder; see his Schroeder (2005). He puts them to use in support of a different (though not obviously incompatible) account of realism. I discuss his account in more detail in the concluding section.

42Nagel (1989, 139).
There are irreducibly, non-naturalist normative truths, response-independent truths that are perfectly objective and that are not reducible to—not even identical with—natural, not-obviously-normative truths.\(^{43}\)

While these authors might appear to be overly strict in using ‘realism’ to describe only non-reductivist views as ‘realist’, we can give a very natural description of what they are doing (and possibly even agree with them) with Gradability in the picture. They are using the binary term ‘realism’ with a very strict threshold in mind, picking out only those views that meet are realist to the highest degree. But of course other thresholds are possible too; these are in play for more common uses of ‘realism’, such as when it is applied to the Identity Theory of mental states, Railtonian reductions of wrongness, or physicalist views of material objects.

These considerations constitute a very strong case for adding Gradability to our catalogue of structural features of realism. The prospects for the three prominent views of realism now become even worse, since gradations in realism are apparently inconsistent with characterizations of realism in terms of the non-graded notions of existence, mind-independence, or an absolute notion of fundamentality. Each employs a binary, on-or-off notion: existence, mind-independence, and fundamentality, as they appear in these conceptions of realism are not gradable notions. As stated, views give no account of gradations in realism. If these views are to be fully adequate, it must be possible to extend them to capture degrees of realism with degrees of existence, mind-independence, or fundamentality.

This does not, at present, constitute a full case against any of these views. There have been explicit proposals in the literature to extend the notion of existence to admit of degrees (McDaniel, 2013). It would be too quick to reject the existence approach simply because it isn’t stated in binary terms.

But a full development of views which make adequate room for gradations in realism faces several obstacles. For reasons of space I will not argue that these obstacles are insurmountable. A few remarks regarding the challenges such an approach faces will be instructive.

First it is not enough for an Existence View to be able to countenance some degrees of existence. If there are degrees of existence, but if (for instance) the Lewisian and the non-reductivist about modality agree on the degree of existence of possible worlds, the Existence View will not capture Gradability. We need some account of degrees of existence that plausibly underpin a connection between degree-of-existence and degree-of-realism. And in giving the needed account of degrees-of-existence, the Existence View risks collapsing into a Mind-independence or Fundamentality view.\(^{44}\) Finally the notion of a degree of

\(^{43}\)Enoch (2010, 414)

\(^{44}\)McDaniel (2013, 8) suggests one way of understanding degrees of existence which does effect collapse into the fundamentality account when he suggests that degrees of existence can be defined in terms of degrees of naturalness. If degrees of existence in this sense can account for degrees of realism, this is a victory for the Fundamentality account—see below for more.
existence is not so well understood that it can stand on its own in an account of
degrees of realism: we need some independent account that makes the connection
between degrees of existence and realism a substantive one.\footnote{McDaniel (2013, 6) and McDaniel (2010, 632 ff) suggest a family of accounts of degrees of existence that give the requisite kind of independent explanation of the notion. But the result is a poor account of degrees of realism. For instance, McDaniel at one point suggests that degrees of existence are explained in terms of membership in the ten Aristotelian genera. This has the virtue of yielding a substantive connection between realism and existence for the Existence theorist—but it will be highly doubtful that the account affords an adequate characterization of realism, as (for example) Railtonian reductivism and a Subjectivism about ethics are realist to different degrees, but it will be difficult at best to find a difference in their entailments concerning membership of ethical properties in the ten Aristotelian genera. (McDaniel suggests other accounts of degrees of existence as well. I do not wish to argue here that any of these are inadequate \textit{qua} accounts of degrees of existence; my only point here is that the result will not be a promising resource for an account of realism.)}

Accounts of degrees of mind-independence will face similar obstacles. Even if we can make sense of the notion of degrees of mind-independence, the Mind-
independence View will need a substantive account of these degrees that both
avoids collapsing it into a competing view of realism, and also provides a plausible
connection between degrees-of-mind-independence and degrees-of-realism. Just
as there is no clear route to carrying out this task for the Existence View, the
Mind-independence View has no clear way forward for carrying out this project.
However there is a very natural and robust notion of degrees of fundamentality,
and these degrees in many cases correspond to intuitive judgments about degrees
of realism. So the Fundamentality account is the most promising of the three
accounts we have on the table to accommodate degrees of realism.

5 Relative fundamentality and realism

\textit{Degrees} of fundamentality, unlike degrees of existence or mind-independence,
have an intuitive life of their own, and can be grasped in the absence of an explicit
theory of what makes for gradations in fundamentality. For instance: it is entirely
natural to say that if acids are electron-pair acceptors, then there is something
that is more fundamental than acidity, namely electrons. Likewise, if gravity is
curvature in spacetime, then spacetime points are more fundamental than gravity.
And if galaxies are collections of stars and other celestial objects surrounded by
an interstellar medium, then stars are more fundamental than galaxies.

I will call these claims of the form ‘\(A\) is more fundamental than \(B\)’ claims about
\textit{relative} fundamentality, or claims about \textit{degrees} of fundamentality.\footnote{Strictly speaking, these do not amount to the same thing: it could be that \(A\) is more fundamental than \(B\), while there are no specific \textit{degrees} of fundamentality, \(d_A\) and \(d_B\), such that \(A\) is fundamental to degree \(d_A\), \(B\) is fundamental to degree \(d_B\), and \(d_A > d_B\). At times, I will speak as if these degrees exist, but much of what I say below can be rephrased (albeit in somewhat more complicated language) using only the comparative ‘more fundamental than’ and without reference to degrees.}

For the sake of clarity, I will briefly sketch a theory of relative fundamentality
which can then be put to use in giving an account which captures all of the
structural features of realism. (However it is important to note that other understandings of relative fundamentality are available, and can in principle be adapted
to providing an account of realism along the lines sketched here.) Much of what we said by way of introducing the notion of absolute fundamentality in §2.3 applies to relative fundamentality as well: electrons, for example, provide a kind of “metaphysical explanation” for facts about electron-pairs; stars provide the same kind of explanation for facts about galaxies, and spacetime points provide the same kind of explanation for facts about gravity.

Two clarifications are in order here. We can understand the absolutely fundamental with a helpful slogan from Fine (2001); it is that which provides the “most satisfying” metaphysical explanation for some fact. Obviously this kind of gloss applies to that which is absolutely fundamental, and cannot be applied directly to explain relative fundamentality. Since electrons have further explanations in terms of the subatomic, electron-pair acceptors do not provide the most satisfying metaphysical explanation of acidity. Still, we can say that what is more fundamental provides the same kind of metaphysical explanation; it simply need not provide the most satisfying version of this kind of explanation. Thus, the electron-based explanation of acidity is still a metaphysical explanation of the same kind, even if it isn’t the final explanation. An analogy with causal explanation may be helpful here: one can causally explain the breaking of a window in terms of the ball that was thrown, its trajectory, the fragility of the glass, etc. This is a perfectly legitimate causal explanation if filled out appropriately. But it isn’t the final causal explanation: that would make reference to the causal precursors of the throwing of the ball, and the causal precursors of the precursors, and so on, perhaps only terminating in a description of the Big Bang. A most satisfying causal explanation of this kind doesn’t preclude the existence of more proximate, non-final causal explanations. That which is more fundamental similarly provides more proximate non-final metaphysical explanations.

The second clarification is that the examples of differences in relative fundamentality mentioned above all represent discoveries from the physical sciences—in particular, chemistry, physics, and astronomy. This might be thought to distinguish relative fundamentality, as I have described it here, from the notion of absolute fundamentality as developed by Fine and others. On these approaches, the absolute notion is approached through primarily through metaphysical or philosophical theorizing—and not, importantly, though empirical science. The relative notion of fundamentality, as described here, appears not to be well-suited to feature in a metaphysical account of realism.

The appearance of an important difference may, however, be misleading. There are some approaches to absolute fundamentality where empirical science does play a central role, but in which the notion of fundamentality retains its metaphysical character. Lewis’s conception of “perfect naturalness” (his terminology for what amount to absolutely fundamental properties) also assigns a central role to empirical science. He says:

To a physicalist like myself, the most plausible inegalitarianism seems to be one that gives a special elite status to the ‘fundamental physical
properties': mass, charge, quark colour and flavour .... (It is up to physics to discover these properties, and name them; physicalists will think that present-day physics at least comes close to providing a correct and complete list.)47

Lewis thus gives physics (or something close to it) a close relationship to the absolutely fundamental. But the "close relationship" isn’t one that undermines its metaphysical character. Lewis isn’t proposing to define the absolutely fundamental in terms of the practices of physicists. Instead, this picture is one on which physics provides at best an epistemology of absolute fundamentality. That physics makes reference to quarks doesn’t make quarks most fundamental; rather, it is simply the means by which we know that they are. Similarly, then, for other sciences and relative fundamentality: these sciences provide an epistemic window into the facts about relative fundamentality, but do not constitute them. Once we separate the epistemic from the metaphysical dimension to fundamentality, the relative version is in no worse shape to feature in a metaphysical account of realism.

With these clarifications in place, we can investigate a positive proposal concerning the natural kind that underlies our talk of ‘realism’. The case for this account begins with the following observation: relative fundamentality provides the scale or gradations needed to explain the GRADABILITY feature of realism. This is the primary motivation, but the account it motivates can capture the TRUTH INDEPENDENCE, DOMAIN NEUTRALITY, and REDUCTION COMPATIBILITY features as well.

5.1 Gradability

It is straightforward to account for GRADABILITY when our starting point is relative fundamentality. The account in general, says that a view is more realist about a domain to the extent that the view take the domain to be more fundamental. Degrees of realism come with degrees of fundamentality. This is the account in general form, but more can be said about why it is compelling in specific cases.

Recall our earlier example: a nonreductivist view about modality is quintessentially realist; the Lewisian reductivist view is less so, but still fares better on the same scale than a fictionalist view, which is not realist at all. This is naturally explained by the following facts:

R1 Modality on the nonreductivist view is more fundamental than it is on the Lewisian view;

R2 Modality on the Lewisian view is more fundamental than it is on the fictionalist view.

47 Lewis (1984, 228). See also Schaffer (2004) for an extension of this position to sciences beyond physics.
R1 and R2 are true for the following reasons. If the nonreductivist view is true, modal facts are perfectly fundamental. Nothing non-modal explains why the modal facts obtain. On the other hand, if the Lewisian view is true modal facts are not perfectly fundamental, since something metaphysically explains why they hold—namely, facts about what happens in spatiotemporally isolated chunks of spacetime. So R1 holds. Similarly for R2: while the modal facts that are metaphysically explained by facts about spatiotemporally isolated chunks of spacetime are pretty fundamental, if fictionalism is true, then modal facts are explained by something much less fundamental—namely, by what is true in the "possible worlds" fiction. So the Lewisian makes out modal facts to be much more fundamental than the fictionalist. (Again it is worth emphasizing that I am working with the notion of metaphysical explanation to illustrate facts about degrees of fundamentality, but in principle the same points could be made in another framework.)

Analogous points could be made about other domains where gradable claims about realism are intuitive, for instance when non-naturalist, Railton-style reductivist, and Subjectivist views in ethics.

5.2 A complete account

While relative fundamentality can account for GRADABILITY, this does not by itself provide a full account. There are other structural features that need to be accounted for as well. I will focus here on developing a relative fundamentality-based account to deal with the most difficult feature, REDUCTION COMPATIBILITY. Then I will note in closing how the resulting account also handles TRUTH INDEPENDENCE and DOMAIN NEUTRALITY.

Begin with the difference between an Identity Theorist about mental states (a realist) and a reductive Behaviorist (an irrealist). It is very natural to say that the difference between the two views lies in how fundamental they entail mental states to be. If pain is a particular neurophysiological state, it is a fairly natural psychological kind and hence is more fundamental than if it is a disjunction of behaviors. That something is metaphysically explained by a highly disjunctive state (such as the Behaviorist’s disjunction of behaviors) entails that it isn’t very fundamental. (Note that by ‘entail’, we don’t mean logical entailment, as the formulations of Identity Theory and Behaviorism need not contain the word ‘fundmental’ at all. Rather, ‘entail’ as used here just indicates what is true under the supposition of a particular theory: to say that Behaviorism entails that mental states aren’t very fundamental is just to say that, under the supposition that Behaviorism is true, it is true that mental states aren’t very fundamental. More on this below.) This suggests a threshold account of realism about mental states along the following lines:

Mental State Realism (MSR) There is a degree of fundamentality d such that a theory T is realist about mental states just in case T entails that mental states are fundamental to (at least) degree d.
The assumption behind MSR, then, is that the Identity Theorist’s view entails pain to be fundamental to the relevant degree, whereas the Behaviorist’s does not. Views analogous to MSR which posit a threshold for realism might then be adopted for other domains.\(^{48}\)

If we adopt analogues of MSR for other domains, the question arises of whether the threshold for realism is the same for each domain. That is: is it the case that there is a single degree of fundamentality \(d\) such that realist views about any domain entail it to be fundamental to degree \(d\)?

Here is a simple argument that the answer is ‘no’. An Identity Theory of mental states holds that mental states are neurophysiological states. A number-theorist might identify numbers with similar entities—perhaps the synaptic firings that correspond to counting operations in normal human minds. Thus, the number 2 on this view reduces to the neurophysiological state that occurs when normal humans count to the second item in a normal counting sequence. The reduction base for pain and the number 2 are then very similar in kind according to these views; plausibly pain and numbers are, on these views, fundamental to the same degree. But Identity Theory seems clearly to be a realist view of pain, while our reduction of numbers entails an irrealist view about numbers. So the threshold for realism about numbers and mental states must be set at different points on the scale of degrees of fundamentality. (Perhaps even for a single domain the threshold can be set at different levels in different contexts. I won’t take a stance on this question here.)

If there is variability in where the threshold for realism is set, one approach to accommodating it is to take another aspect of the analogy with gradable adjectives seriously. For ‘loud’ and other gradables, the threshold is set by conversational context. Exactly what features of context are relevant, and how they conspire to set a standard for loudness is a tricky matter. But it is clear that my coffee grinder counts as loud in some contexts and not others, and that the difference between these contexts in part has to do with the comparison class at issue.\(^{49}\) The comparison class contains contextually and conversationally salient objects, and determines in some way where on the scale of volume the threshold for loudness is to be set. In contexts where the comparison class contains only chirping crickets, my coffee grinder counts as loud; in contexts where the comparison class contains only train whistles, it does not.

The comparison class in a discussion of realism is naturally taken to include other salient views about the domain in question. Thus, when realism about mental states is at issue, the comparison class includes theories of mental states that conversational participants take to be relevant. This comparison class then (somehow) sets a threshold for fundamentality. Quite plausibly, the salient views

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\(^{48}\)Note that this threshold needn’t require a very high degree of fundamentality. Identity Theory might imply that mental states aren’t very fundamental at all. All MSR requires is that competing irrealist views, like Behaviorism, imply that mental states are even less fundamental.

\(^{49}\)See Klein (1980) for discussion of the notion of a comparison class, and Ludlow (1989) for more on the ways in which comparison classes are fixed.
about mental states will constitute a comparison class that determines a degree of fundamentality that is higher than the degree to which mental states are fundamental on the Behaviorist view. This is what sets the relevant threshold for MSR.

The story about realism in other domains is then a variation on this theme. When domains other than the mental are at issue, the comparison class is different as well: if we shift to a discussion of realism about numbers, then salient theories of numbers populate the comparison class, not theories of mental states. This shift may well determine a different threshold for realism. Without taking a stand on the exact mechanisms by which competing views populate a comparison class, and the precise way in which a comparison class determines a threshold, the account of realism is, in general form, as follows:

**Realism** For any domain $D$, the comparison class for $D$ determines a degree of fundamentality $d$ such that a theory $T$ is realist about $D$ just in case $T$ entails that $D$ is fundamental to (at least) degree $d$.

**Realism** is extremely natural as an account of what makes the Instrumentalist an irrealist about the unobservable entities of scientific theories, and what makes the Vitalist view of life highly realist, to take a few examples. For the Instrumentalist is plausibly construed as holding that instruments of measurement are more fundamental than unobservables, since on her view, facts about the reading of instruments explain facts about unobservables. And the Vitalist is plausibly construed as holding that biological processes are not more fundamental than life—and hence that the latter is highly fundamental since they are not explained by biological processes at all. Given plausible comparison classes for these domains, **Realism** fares nicely as an account of realism for these cases that proved difficult for other views of realism to accommodate.

Several notes about how **Realism** is to be understood are in order. First, it doesn’t require that the views under consideration explicitly make claims about how fundamental their domains are. From the central claim of Instrumentalism—that facts about unobservables are complicated facts about measuring instruments—it follows that unobservables aren’t very fundamental since they are less fundamental than instruments. Instrumentalism doesn’t need to include any claims about fundamentality in order to have this implication; its claims about what unobservables are suffice. (Thus views whose proponents do not theorize in terms of fundamentality, or reject such theorizing, can still be assessed for realism. One needs to look at what the view’s claims about the nature of its target domain imply concerning fundamentality, which is possible even if the canonical statement of the view doesn’t include the term ‘fundamental’, or if its proponents explicitly avoid making claims about fundamentality.)

This leads to a second issue concerning the interpretation of **Realism**: in assessing whether a view is realist, we can’t remain neutral on how fundamental the components of the *analysans* are. Unobservables on the Instrumentalist view
aren’t very fundamental because instruments aren’t very fundamental; mental states on the Behaviorist view aren’t very fundamental because disjunctions of behaviors aren’t very fundamental. To make these claims, we simply look at how fundamental instruments or behaviors actually are. Thus if one formulated a version of Behaviorism that is identical to the original formulation, one would not thereby formulate a realist version of Behaviorism. It is an independent fact that disjunctions of behaviors aren’t very fundamental, and we hold this point fixed in working out the implications of Behaviorism for the fundamentality of mental states. Of course not everything is held fixed—assessing whether Behaviorism is a realist view requires supposing that Behaviorism is true, and thereby supposing that mental states really are disjunctions of behaviors; we are asking how fundamental mental states are under such a supposition when working out whether the view is realist according to Realism.

Here is the approach in slightly greater generality. There are certain “core” claims of a view, which we take on board by supposing them to be true, and other “ancillary” claims which we leave fixed, held to match how they are in the actual world. Behaviorism’s core claim is that mental states are behaviors—to assess how fundamental behaviors are on this view, then, we assume that this identity holds. But facts about what behaviors are, and how they are related to physical, chemical, and biological facts, are ancillary claims for Behaviorism. So when we undertake the supposition that the core claim of Behaviorism is true, we continue to suppose that the actual facts about the metaphysics of behavior are in place, since these are ancillary to the core claims of Behaviorism. Similar questions about other views and domains are settled in an analogous way (though note that in some cases the nature of the analysans will be a core claim: for the Berkelian Idealist, the core claim about material objects is not just that material objects are collections of ideas, but also that these ideas exist only in the mind of God). There may of course be some vague cases where it is indeterminate whether a particular claim is a core or ancillary claim with respect to a particular view. In these cases, it may well be vague how fundamental a view makes its target domain out to be, and hence vague whether the view is realist.

Realism, of course, is a comparative claim which concerns the relationship between the degree of fundamentality of a domain according to one view, and the degree of fundamentality of the same domain according to other, distinct views. Whether a view is realist according to Realism, then, cannot be settled by simply making one supposition, and working our the fundamentality-facts from there. Rather, it requires multiple incompatible suppositions, and working out the consequences for the fundamentality of D from each supposition individually. Suppose, for the sake of concreteness, that we wish to ask whether T1 is realist, and the comparison class of salient views consists in T2 and T3. First we need to ask how fundamental D is according to T2 and T3; this determines a threshold for realism. To do this, we start by supposing that the core claims of T2 are true (while leaving ancillary claims fixed) and asking how fundamental D is on such a supposition. Then we do the same for T3, making a distinct supposition
(this time involving only the core claims of $T_3$ and ask how fundamental $D$ is under this supposition. These first two steps determine a threshold for realism. (I have not specified how exactly the threshold is determined from the comparison class, but note that one might ask a similar question about how the volume of salient noises sets a threshold for 'loud'; one will be hard-pressed to find an informative and substantive answer to this question as well.) Finally, we make a separate supposition of the core claims of $T_1$ and ask how fundamental $D$ is on this supposition. If the degree of fundamentality meets or exceeds the threshold, $T_1$ is realist about $D$; otherwise not. As before, vagueness and imprecision might enter in at any of these stages; this may result vagueness in whether $T_1$ is realist.\footnote{This way of putting things crucially relies on the use of 'degrees' of fundamentality, rather than a simple ordinal fundamentality ranking. It may be possible to state a similar view using a simple ordinal, ranking, though I will not be able to address this question in detail here. The revision will however be substantial and may not be equivalent to the degree-theoretic version of Realism stated here. But it should in principle be possible to understand Realism in terms of ordinal rankings because supposition of each of $T_1, T_2$, and $T_3$ leaves all of the ancillary claims fixed; as a result there will be a substantial amount of agreement between the fundamentality-rankings on each of the three suppositions. It is then possible to make sense out of the idea that $D$ falls at higher or lower places on the different rankings. This may be enough to secure a workable variant of Realism.}

Since different reductions have different implications for the degree of fundamentality of a domain, many settings of a threshold for realism will result in a classification of some, but not all, reductive views of the domain as realist. Thus Realism plausibly implies Reduction Compatibility.

Realism is likewise consistent with Truth Independence. Some theories will entail truths about a domain, but make these truths out to be not-very-fundamental and hence not reaching the threshold of fundamentality required for realism. The same truth might be very fundamental according to one theory, and not-very-fundamental according to another. So ordinary truths by themselves won’t settle questions about realism.

Finally, Realism can accommodate Domain Neutrality: the mental might, just like any other domain, be more or less fundamental according depending on which theory of the mental is in play. The same considerations will then apply in assessing the realism of a particular theory, \textit{viz.}, whether the mental meets the required threshold for realism according to the theory. While Mind-independence views treat one specific domain as a fixed point, Realism gives a single treatment to candidates for realist views across domains.

6 Conclusion

Realism, I have argued, represents a much-improved attempt at an account of the metaphysically natural kind that underlies philosophical talk about ‘realism’. Whether it provides a fully satisfactory account, given the parameters set out in §1, can be debated. There are two directions in which this question might be further pursued. Recall the desiderata: we want a single metaphysical kind that plays the structural roles distinctive of realism. I have argued that Realism gives an account which entails all of the four structural features outlined in this paper. There
are substantial questions to be asked concerning whether REALISM articulates a metaphysical kind, and whether there is a single kind underlying the account. These are worthwhile questions to ask but in the interest of space I will not address them here. Instead I will only note that REALISM seems to be the best approximation of the realism-role on offer. We can at worst then use the account to ask whether the realism/irrealism distinction is a highly gerrymandered one that is of no interest to metaphysics, or whether it is a distinction of genuine theoretical interest.

To close, I will mention one more point in favor of the account. Many philosophers have found the Existence, Mind-independence, and Fundamentality accounts to be very compelling accounts of the subject matter. But, if the objections of §§3-4 are correct, these views fail for very straightforward reasons. What can explain their appeal? The REALISM-based account has a simple answer: existence, mind-independence, and absolute fundamentality often stand proxy for a greater degree of fundamentality.

Take Existence views first. There are some cases where we, with good reason, restrict the theoretical roles we associate with a term to require that its referent be highly fundamental. One example is found in Schroeder (2005): with theological terms like ‘God’, one doesn’t count as holding that God exists if one accepts a reductive account of their referents. If one identifies the referent of ‘God’ (as in Schroeder’s example) with the strong nuclear force that holds positively charged protons in atomic nuclei together, one does not thereby count as someone who holds that God exists. Finding just any existing referent for ‘God’ does not suffice for theological realism.

51 See also Manley (2009). For Schroeder, this is because the theoretical role for ‘God’ requires of its referent that it bear certain properties—the referent of ‘God’ must be a person, must be capable of creating the world, must love humankind, etc. So we need to find referents for ‘person’, ‘create’, ‘loves’, etc. that apply to the strong nuclear force, but also preserve most of the ordinary truths about persons, creation, and love. Schroeder claims that identifying the referent of ‘God’ will eventually fail to preserve the truth of related claims involving ‘person’, ‘create’, ‘loves’, etc., and that the attempted reduction of the theological fails because of this. (See Schroeder (2005, 6).)

There is a worry about whether this is really what explains the failure of reductive accounts of the theological to be consistent with ‘God exists’ on its ordinary meaning. Permutation arguments inspired by Hilary Putnam (1981) claim to show that there will be many truth-preserving interpretations of a language. (See also Button (2013, Chs. 1-4) for more detail on Putnamian permutation arguments.) Such a permuted interpretation is for to the theological reductivist who starts off by identifying the referent of ‘God’ with the strong nuclear force. On this interpretation, all of the relevant theological claims will come out true. But this seems irrelevant to the question of whether the strong nuclear force-theorist has a view on which God exists—of course she doesn’t. Placing a fundamentality requirement on admissible interpretations, as described below, explains why an interpretation that starts by assigning the strong nuclear force as the referent of ‘God’ will fail to yield a candidate English meaning of the term regardless of whether a Putnam-style permutation is available.
true. The problem for this interpretation is that, by beginning with an assignment of the strong nuclear force as the referent of ‘God’, such an interpretation will be highly gerrymandered and contrived elsewhere. (Consider the interpretation of ‘person’: it must be a property that applies to not only the strong nuclear force, but also to the referent of ‘human’, but not to the referent of ‘rock’, ‘planet’, or ‘number’. Such maneuvers will inevitably require a significant amount of gerrymandering in order to preserve the truth of many ordinary claims.) This suggests that theological terms are not only connected via theoretical role to claims expressed by ‘person’, ‘create’, ‘love’, etc.; the theoretical role attached to theological terms in addition requires that the properties of personhood, creation, love, etc. be highly fundamental. Since any interpretation that starts by assigning the strong nuclear force as the referent of ‘God’ will end up with not-very-fundamental referents for other terms that are closely connected to the theoretical role for ‘God’, such interpretations are ineligible. ‘God exists’ only comes out as true when the relevant terms are assigned sufficiently fundamental referents.

The question of theological realism then goes hand-in-hand with the question of the existence of the theological. But this is only because the theological can be expected to be fundamental, if it exists at all. This needn’t, however, be true for every domain for which the question of realism can arise. Discovering the constitution of polywater needn’t show that polywater doesn’t exist, as there need not be an expectation that any referent for ‘polywater’ is a highly fundamental one. More generally, once the domain in question isn’t one that can be expected to be highly fundamental if it exists at all, it can still be properly said to exist even if it turns out to be highly gerrymandered and unnatural. In these cases, mere existence won’t be sufficient for realism about the relevant domain. From the perspective of Realism, the existence conception provides a sometimes (but not always) useful heuristic for when a view is realist.

Realism also explains why the Mind-independence and Fundamentality accounts are tempting. Often, something that is mind-dependent is thereby not-very-fundamental: after all, the mind-dependence claim itself is a claim that there is something more fundamental, namely the mind. Views which entail the mind-dependence of a domain will, in general, also fail to be realist views in the sense Realism. But there are exceptions: when the domain in question is explicitly mental, correlations between mind-dependence and comparatively lower degrees of fundamentality go out the window.

Finally, absolute fundamentality will always imply realism—views on which a domain is absolutely fundamental are guaranteed to be views on which the do-

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52 Note that there might be such an expectation: as we filled out Railton’s example earlier, one might, prior to the relevant discovery, associate with ‘polywater’ a theoretical role that requires it to be of the same kind of molecular constitution as ordinary water. But, we emphasized, this isn’t required: one might also continue to use the term ‘polywater’ with the same meaning after the discovery. One can consistently do this so long as one associates a less strict theoretical role with the term. This kind of case shows how, at least in principle, discovery of a not-very-fundamental reduction basis need not require a denial of the existence of the reduced domain or property.
main meets the contextually set degree of fundamentality required for realism. But the converse need not hold: some views which meet the contextually set degree of fundamentality required for realism need not be views on which the domain is absolutely fundamental. The Fundamentality view, like the Existence and Mind-independence views, provides in some cases a useful proxy for what is at issue in discussions of realism. But none of these views provide a complete picture; for this we need relative fundamentality.

References


Marie François Xavier Bichat. *Anatomie générale appliquée à la physiologie et à la médecine*. Brossom, Gabon et Cie., 1801.


\[53\] Moreover, it will always imply bivalence if there is no indeterminacy at the fundamental level. So given this assumption the Dummettian view always correctly categorize views that are realist by virtue of taking their domain to be fundamental.


