

## Meta-Ontology, Epistemology and Essence: On the Empirical Deduction of the Categories

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ABSTRACT: *A priori* reflection, common sense and intuition have proved unreliable sources of information about the world outside of us. So the justification for a theory of the categories must derive from the empirical support of the scientific theories whose descriptions it unifies and clarifies. We don't have reliable information about the *de re* modal profiles of external things either because the overwhelming proportion of our knowledge of the external world is theoretical—knowledge by description rather than knowledge by acquaintance. This undermines the traditional idea that to be an object of category C is to be an object with such-and-such characteristic possibilities of combination. But this is no loss because *de re* modal thought lacks utility for creatures like us.

### 1. Introduction

Are the categories given to us *a priori* or *a posteriori*? How can we discover the most generic kinds of being there are, if indeed there's more than one? By the end of the 20th century many philosophers conceived as an empirical endeavour the task of determining what beings exist, a messy *a posteriori* business best left to total science. By contrast, the task of determining the most generic kinds of whatever beings the scientists happened to discover, philosophers kept to themselves, a task of 'first philosophy' best settled *a priori* from the armchair.<sup>1</sup> Extraordinarily, this meant that after a preceding century of meta-philosophical upheaval and revolution, the *Zeitgeist* had reverted to an unequivocally conservative understanding of how the categories are given—a pre-Critical or dogmatic approach to metaphysics that wouldn't have been out of place in the 18th century. But knowing what we know now, living after the crises that shook the foundations of logic and mathematics, after the mind-expanding developments of modern physics, we can't rest here. Philosophers may once more be declaring they have *a priori* access to the world-in-itself and that they can think

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<sup>1</sup> This division of epistemological labour, whereby the categories of reality are settled *a priori* but what things there are belonging to the categories is to be settled *a posteriori*, was popularised by Armstrong (1978: *xiii-xv*). For a more recent example of this division of labour see Lowe 2006: 5. For reasons that are congenial to the present authors but differ from the arguments presented here, MacBride (1998) argues that Armstrong has offered us an unstable package of views.

ahead of scientists about what is possible for it. But this hypothesis has not stood the test of time. What is needed now is an empirical approach to the most generic kinds of being, one that keeps the most abstract questions of speculative metaphysics in touch with the questions of existence and nature that the special sciences seek to answer, an approach that's empirical because it gives full heed to the significance of the sciences to determining the categories, an approach to which the early Wittgenstein, Ramsey and Quine made significant steps.

## 2. *The categories aren't given a priori or by common sense or by intuition.*

From the point of view of the resurgent pre-Critical philosophy, the empirical approach to the categories envisaged here cuts out the relevant experts from the enquiry, *i.e.* metaphysicians. Here's what they often say. Yes, physicists are good at bosons and photons, quarks and leptons, but it's metaphysicians that are good at particulars and universals, facts and events. That's how we metaphysicians contribute to the sum-total of human knowledge—because we're the ones with the skills and the training in the concepts that have been developed (by metaphysicians) to enable us to think hard about the categories themselves. But metaphysicians who say these kinds of things have to face up to an enormous challenge. As long as the contribution of metaphysicians to determining the categories is conceived as involving more than merely following out the lines of logical implication, whilst still being independent of experience, it remains deeply mysterious how metaphysicians could ever make a genuine contribution to human knowledge. As Kant addressed his own pre-Critical adversaries, "You speak through pure reason and presume as it were to create cognitions *a priori*, not merely by analysing given concepts but by giving out that you are making new connections, which do not rest on the principle of contradiction, and you believe to have insight into them independently of all experience: how do you arrive at all this and how will you justify such pretensions?" (1783: §5).

Kant argued that it is only possible for the categories to be given to us *a priori* if the *genera* in question are projections from the forms of human judgment. Of course the resulting doctrine of transcendental idealism, according to which the world of nature is merely a field of appearance, proved unsatisfactory, for all sorts of reasons. But that doesn't mean that Kant wasn't right to challenge the metaphysicians and their pretensions to *a priori* knowledge of the categories. The possibility of *a priori* knowledge of the most generic kinds of being doesn't become less problematic to grasp because the world of nature isn't a field of appearance, but only more so. If the categories of things outside of us are fixed independently of the forms of the thoughts inside us then it can hardly be *a priori* that one tracks the other.

In fact we have far more reason to be wary of claims to *a priori* knowledge than even Kant did. Because we have the benefit of knowing about the revolutionary advances in science and mathematics that came after Kant, advances that have led to the successive abandonment of principles that were once regarded as *a priori*. The success of Cantor's theory of transfinite numbers undermined the *a priori* status of the principle that if A is a proper subclass of B then the number of things in B is greater than the number of things in A. The success of Einstein's general theory of relativity, which uses non-Euclidean geometry to describe space-time, undermined the *a priori* status of the principle that parallel lines never intersect.<sup>2</sup> And we also have the benefit of knowing that even Frege and Russell's best and brilliant efforts to establish the *a priori* status of mathematics, by endeavouring to show that mathematics is logic in disguise, ended in failure. If it can't even be established *a priori* that  $2+2=4$ , how can we be confident that the categories are given to us *a priori*? The metaphysical concepts that correspond to the categories are elusive, *recherché*, invariably contested and far less use to us than geometrical or arithmetic ones.

Appeals to intuition, what's natural or common sense to think fare no better so far as history is concerned. It was intuitive, natural and only common sense to think that a whole is invariably greater than its parts. But fortunately for the rest of us, this didn't hold Dedekind or Cantor back. They recognised that our intuitions about parts and wholes arose from our having had too restricted a view of the Universe for too long, our parochial acquaintance confined to finite wholes and parts. What makes infinite wholes different, Dedekind saw, is just that they have parts the same size as themselves; this was the starting point for Cantor's theory of transfinite numbers.

Kant was already wary of cutting our scheme of categories to suit intuition or common sense, objecting to his pre-Critical opponents, "You cannot be permitted to appeal to the consent of common sense, for this is a witness whose reputation only rests on public rumour" (1783: §5). Famously G.E. Moore argued that some common sense *dicta* are certain; not only evident but more reasonable for us to believe than anything else; hence the legitimacy of our appeals to common sense to decide which other things are reasonable. But in his "Defence of Common Sense" Moore himself conceded that whilst the truth of these *dicta* is certain, for example propositions which assert the existence of material things, their analyses aren't: "Of the truth of these propositions there seems to me to be no doubt, but as to what is the correct analysis of them there seems to me to be the gravest doubt" (1925: 59). Moore had to admit

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<sup>2</sup> Famously Quine conjectured that even the law of excluded middle might be abandoned at the service of simplifying quantum mechanics (see his 1951a: 40).

that he couldn't even rule out the possibility that propositions which assert the existence of material things are to be analysed (as Mill held) in terms of "permanent possibilities of sensation". Because we cannot be certain of their analyses, we cannot be certain what common sense *dicta* are telling us about the world.

Moore should certainly be granted the wisdom of his concession; still he was far too naïve about the deliverances of common sense. The propositions about material objects that are intuitive or common sense or natural for us to think today must have somehow earned their place in the collective affection of our species in prehistory. But what did these *dicta* about material things actually do to earn the affection of our forebears and what is the significance of their enduring fascination for us? We cannot answer such questions simply by contemplating the *dicta* in question. All variety of forces—cultural, practical, psychological, physiological *etc.*—may be conspiring together out of sight to render the *dicta* intuitive or natural to us even though their significance for our conceptual scheme may be only vestigial. Until we have a natural history of common sense and intuition, we won't be in a position to tell which, if any, of our common sense *dicta* and intuitions reflect the categories of a Universe that stretches far beyond the immediate environment where common sense and intuition has served us. An intuition of a *homo sapiens* may amount to no more than a selfie taken from an oblique, distorting angle.

Moore's influence upon contemporary metaphysics has been mediated by the influential methodological reflections of David Lewis. According to Lewis, "Common sense is a settled body of theory – unsystematic folk theory – which at any rate we *do* believe; and I presume that we are reasonable to believe it. (*Most* of it.)" (1986: 135). Accordingly Lewis put forward as a necessary condition on the acceptability of any philosophical theory that it not conflict with our common sense folk theory: "The proper test, I suggest, is a simple maxim of honesty: never put forward a philosophical theory that you yourself cannot believe in your least philosophical and most commonsensical moments". But there's no principled procedure for selecting common sense claims, neither for settling what these claims mean nor weighting their relative significance. It's a consequence of Lewis's favoured theory of possible worlds that there are talking donkeys (speaking unrestrictedly). It's indicative that even this theory passed the common sense honesty test for Lewis. But it's an even worse problem for Lewis's proposed methodology that when we're thinking and talking commonsensically we may be thinking philosophically askew because common sense may have different ends in sight.

The early Wittgenstein and Ramsey avoided these kinds of problems with their approach to the categories. They denied that knowledge of the *summa genera* is acquired

either from the armchair (*a priori*) or from our mothers' knees (common sense). For them, knowledge of the categories, the logical forms of objects, may be acquired only by *a posteriori* scientific investigation. Hence, Wittgenstein's conclusion, "there is no philosophical monism or dualism *etc.*" (1922: 4.128). There is no possibility of pre-empting the scientific investigation by settling in advance that there is exactly one generic kind of being or two generic kinds of being: "The enumeration of any special forms would be entirely arbitrary" (5.554). Hence too Ramsey's willingness to contemplate the epistemic possibility that the categories of substance and attribute are cases of *summa genera* but not to believe ahead of time, ahead of empirical investigation, that it's realised: "This I admit may be found to be the case, but as no one can as yet be certain what sort of atomic propositions there are, it cannot be positively asserted" (Ramsey 1926: 21). We cannot be certain what sorts of atomic propositions there are because our ordinary ways of thinking and talking about the world traffic only at the level of logical constructions and incomplete symbols; they may sound simple to us from the inside but they relate to the world outside of us in enormously complicated ways of which we lack reflective oversight.

Whilst Wittgenstein and Ramsey's reflections indicate that they had taken a significant step forward from the pre-Critical approach to the categories, they continued to adhere to another dogmatic idea, the idea that the category of an object, its form, fixes its essential features. But if we're to take a thoroughgoing empirical approach to the categories then we will need to give up this idea too.

### 3. *The Empirical Approach to the Categories.*

Pre-Critical and dogmatic metaphysicians think we can know what categories there are and how they fit together independently of our knowledge of more specific kinds of being. What is it to be a substance or an attribute? How do substances or attributes behave in general? These are questions of pure ontology to be settled from a God's eye point of view—we attain this truly global perspective by ignoring the potentially distracting local features hereabouts. But why think pulling down the veil of ignorance, pretending that we don't know what specific kinds of being there are, should reveal to us what the most general kinds are? Why think that questions about which attributes substances can or must have make any sense at all in abstraction from our usual ways of knowing about specific kinds of being?

The foreseeable rejoinder: if it wasn't possible for us to know what it is to be a substance or an attribute, or how substances and attributes behave in general, it wouldn't be possible for us to interpret the data that provides evidence for the existence of this or that

kind of being in the first place. But it's implausible that the theory of categories performs this kind of epistemologically foundational role for us. We can have evidence for the existence of something without being certain whether it's a substance; we might even be mistaken about something's being a substance. For example, it might turn out that material bodies aren't substances, being rather, as Whitehead put it, "true Aristotelian adjectives" (1922: 15). This might be because, as Whitehead proposed, material bodies are dependent upon underlying events, or because, as contemporary field theory suggests, material bodies are best understood in terms of fields belonging to space-time. As Quine made the point, "Matter is quitting the field, and field theory is the order of the day" (1976: 499).

Of course it's true that when we find evidence for the existence of some specific kind of thing, we usually rely on some prior characterisation of a more general kind, one that subsumes the specific kind discovered, a characterisation that belongs to a background theory. But it just doesn't follow from this commonplace that we have available to us or that we rely upon a characterisation of a *summa genus*. And, as a matter of fact, scientists working on photons or measles often don't know, or don't care, about what it is to be, say, a substance or an attribute. Still they effectively push back the boundaries of knowledge for us without being stymied by an inability to interpret their own evidence—although they might have been if they'd allowed themselves to be guided by metaphysicians because metaphysicians are always changing their minds and have never achieved consensus about the categories. So the pre-Critical or dogmatic approach to the categories faces a challenge squaring metaphysics as it's historically turned out with scientific practice.<sup>3</sup> The empirical approach avoids this problem of fit by conceiving of metaphysics done right as continuous with science.

From the empirical point of view, the categories are given to us only as the *summa genera* of the broader framework, if there is one, that arises organically from the special sciences; there is no coming to the categories independently of seeking to unify and clarify the different theoretical descriptions of reality the special sciences deliver. The empirical support for a theory of the categories derives from the empirical support of the scientific theories whose descriptions it unifies and clarifies.

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<sup>3</sup> Of course another aspect of this problem arises with respect to particles in quantum mechanics, the occurrence of which famously challenges our ordinary intuitions about objects. The concern that the objects or substances of traditional metaphysics aren't to be found in contemporary physics has been around for a very long time. It was a concern raised, for example, by Cassirer in the 1930s (see his 1937: 180). It's a striking fact that most metaphysicians still don't concern themselves with figuring out what contemporary physics is telling us about the world.

This reflects the fact that the preponderance of our knowledge of the world is knowledge by description rather than acquaintance. Most things aren't given to us directly but only as something or other that successfully performs such-and-such a theoretical role. Quine took an extreme version of this view, arguing that absolutely all of our knowledge of things of whatever kind is mediated by our best theory of the world. When we first begin to theorise, we label features in our experience, and use truth-functions to knit confirmed observation statements together. The idea of a body doesn't emerge until after we start identifying significant patterns of overlap in our observations. Bodies are introduced to account for the frequent occurrence of features together. We don't acquire the idea of a body from the vantage point of first philosophy. It's the exigencies of constructing a theory adequate to the task of explaining our overlapping observations that lead us to it: "This is where I see bodies materializing, ontologically speaking: as ideal nodes at the foci of intersecting observation sentences" (Quine 1992: 24).

We do not need to adopt so extreme a position as Quine did to share his outlook. Perhaps we are fortunate that some things are given immediately to us. But we only know about the things that aren't given to us immediately because we can describe them as solutions to puzzles about the things that are. And it's only by acknowledging the existence of things (space-time, photons, DNA, measles *etc.*) that aren't given immediately but answer to such descriptions that we're able to attain to the comprehensive, systematic knowledge of the world that the sciences deliver us. So we can't settle what the most generic kinds of being are without analysing the descriptive knowledge the sciences supply, *i.e.* without determining what kinds of being the sciences invoke to account for the observable data. What kinds of being a particular theory invokes will depend upon the interlocking characters of the theoretical roles it ascribes to beings in the world. In Quine's terms, we must look both to the ontology of a theory, its existential presuppositions, as well as its ideology, the descriptive resources employed by the theory to articulate the roles performed by the beings whose existence is presupposed. Theories consist of the seamless interweaving of ontology and ideology. There are no bare existence claims, no making of an existence claim that doesn't draw upon the ideology of the theory to which it belongs to articulate the role it affirms to be filled.

It has recently become the fashion to criticise this Quine-influenced outlook and compare it unfavourably to Aristotle's approach to the categories. According to Jonathan

Schaffer, for example, Quine had an unhealthy preoccupation with existence questions.<sup>4</sup> Of course Quine considered it an important occupation for philosophers to establish the existence presuppositions of our best theory of the world. But Schaffer understands this to mean: “the Quinian task is *to list the beings*” (2009: 348, his italics). Since the task of listing beings is hardly intellectually satisfying, Schaffer recommends taking inspiration from Aristotle instead. According to Schaffer, Aristotle wasn’t interested in existence questions and Schaffer derives from him an alternative approach: “the task of metaphysics is to say what grounds what” (2009: 351). We achieve systematic insight in metaphysics by appealing to a grounding relation to connect the disparate categories—grounding attributes upon substances, facts upon their constituents *etc.*

The unfavourable comparison of Quine to Aristotle rests upon caricatures of both. Quine didn’t think the task of metaphysics to be solely one of listing beings, anymore than he thought it the task of science to list beings.<sup>5</sup> This is hardly surprising since, as Quine asseverated, “I see metaphysics, good and bad, as a continuation of science, good and bad” (1988: 117). Quine did not even think it was possible to list beings as such. This is because all that we discover when a theory is confirmed is that some things or other perform the interlocking roles delineated by the theory. So far from the plodding production of lists, Quine envisaged the task of metaphysics to be the deeply systematic one of developing a broad framework to encompass all the special sciences and the descriptions they provide of reality. Hence, “The quest of a simplest, clearest overall pattern of canonical notation is not to be distinguished from a quest of ultimate categories, a limning of the most general traits of reality” (Quine 1960: 161). There is no need to appeal to a supra-scientific grounding relation to achieve systematic insight in metaphysics. Speculative metaphysics derives its systematic nature from the effort to develop a unified scheme for describing reality in all its extraordinary variety.

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<sup>4</sup> This isn’t a new criticism of Quine. Members of the ‘Iowa School’ associated with Gustav Bergmann typically maintained that ontological disputes aren’t invariably about the existence of things but more often about their nature. See, for example, Grossmann 1983.

<sup>5</sup> Whilst Aristotle wasn’t interested in listing entities either, the great denier of Platonic forms certainly wasn’t indifferent to existence questions. For example, in *Metaphysics N* Aristotle asks about the category of intermediates, a category of number intermediate between the forms and the ordinary things they’re used to count, “where are we to find reasons for believing they exist?”. Aristotle then dismisses the answer of a Platonist who believes in such entities: “Why should we credit him when he says that this sort of number exists, and what use is it to anything else? There is nothing which the man who believes in it *says* it causes; he just says it is a kind of independent entity” (1090a2-15). See Annas 1975: 152-6 for further discussion of Aristotle’s arguments for denying the existence of intermediates.



The choice of a canonical notation is governed by the same norms as govern theory choice in the sciences generally—simplicity, scope, fecundity *etc.* We choose theories with these features because they help us get around the world better than theories that don't have these features. Huw Price has argued that the resulting outlook, inspired by Quine, is bad news for metaphysics because Quine doesn't allow for the contrast between what's useful and what's true, a contrast without which traditional metaphysics founders (2009: 326). Price bases his anti-metaphysical interpretation upon the concluding sentence of Quine's paper "On Carnap's Views on Ontology": "Carnap maintains that ontological questions... are questions not of fact but of choosing a convenient scheme or framework for science; and with this I agree only if the same be conceded for every scientific hypothesis" (Quine 1951b: 72).

Taken out of context this remark suggests that Quine conceived of ontological and scientific questions alike as *not* being questions of fact but only convenience. But it's important to remember that "On Carnap's Views on Ontology" is a partner paper to "Two Dogmas of Empiricism" which appeared the same year and which Quine cites explicitly in the very paragraph from which this remark is taken. It's a common theme of both papers that there's no separating out questions of fact from questions of convenience, *i.e.* they're arguing towards Quine's trademark doctrine that there are *no* statements with a null factual component that are true merely as a consequence of the language structure we have chosen to use. So Quine cannot have meant to convey by the concluding sentence of "On Carnap's Views of Ontology" that ontological questions are questions not of fact but only of our choosing a convenient scheme, *i.e.* that one of the characteristic theses of "Two Dogmas of Empiricism" was mistaken after all. We need to exercise the Principle of Charity and interpret Quine's remark as a rhetorical flourish, part of a package of persuasive measures intended to undermine Carnap's conviction that empirical existence questions, such as whether there are black swans, are questions of fact to be cleanly separated from ontological questions, such as whether there are numbers or physical objects, which are questions of convenience. Quine is saying to Carnap that if you think the question whether there are numbers or physical objects is to be settled solely by choosing a convenient language structure then, by parity of reasoning, you should think the same about the question whether there are black swans; and he is inviting Carnap to join him by concluding that neither is a matter exclusively of convenience. By the time he came to write *Word & Object*, Quine had settled upon rhetoric that was less open to misinterpretation: "Nor let it be retorted that such constructions are conventional affairs not dictated by reality.... such is the nature of reality that one physical theory will get us around better than another; but similarly for canonical notations" (1960:

161).

The important point for our purposes is that the empirical outlook on the categories recommended by us is only pragmatic so far as the epistemology goes. From the range of theories available to us to choose, the theories that work for us are the theories we have the most reason to believe reflect the nature of reality. Of course we might still be misled. Even a useful theory of the categories might turn out to be false.

#### 4. *Categories and Modality*

Wittgenstein and Ramsey took a major step towards the empirical outlook, admitting that the natural sciences perform an indispensable role in determining the categories, but they still held onto the dogmatic idea that to be an object of a certain category is to be an object with such-and-such possibilities of combination with other objects quite independently of how it's described. It's an idea that continues to hold sway today. Laurie Paul offers a characteristic endorsement: "What objects *are* is determined by their modal properties, and these are determined in a context independent manner" (2006: 345). But the modal profile of an object, at least in this strong sense, is not given to us empirically. So this idea of traditional metaphysics must be relinquished as well.

It's crucial that we acknowledge the serious consequences of the fact that most of our knowledge is knowledge by description rather than acquaintance.<sup>6</sup> Most objects aren't given to us as such but only as solutions to puzzles that arise about the pattern of our observations. We know only that something or other satisfies the descriptive roles that our theories supply to explain these observations. We have evidence that there is something or other that satisfies these roles because the predictions of the theory in question are confirmed. But we don't have any more direct epistemic access to whatever object or objects happen to satisfy the descriptions of the theory. Scientific descriptions, even when definite, are used attributively rather than referentially.<sup>7</sup> Scientists use them to convey general thoughts, thoughts about some *F* or other, rather than singular thoughts, thoughts about a specific *F* they have in mind. So we have no grasp of the objects described by the scientific theory in question independently of the knowledge that they are whatever objects satisfy the theoretical roles in question. It follows that we can't figure out the modal profile of an object just by

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<sup>6</sup> See Russell 1910-11: 108 for the distinction between knowledge by acquaintance and knowledge by description.

<sup>7</sup> See Donnellan 1966: 363 for the distinction between 'attributive' and 'referential' uses of definite descriptions.

contemplating *it*, how it is possible for *this* object to combine with other objects: there's no 'it' about which we have a singular thought to contemplate. We can only trace out the consequences of there being something or other that fulfils a given theoretical role, *i.e.* relative to the description of that role.

Acknowledging this feature of our epistemological situation leaves little room for Kripke's celebrated case for origin essentialism to get off the ground. According to Kripke, Queen Elizabeth II has a very specific modal profile: she could not have had different parents from the parents she actually has. Kripke offers a thought experiment in support of his view: "One can imagine, *given* the woman, that various things in her life could have changed... it's possible that even though she were born of these parents she never became queen.... But what is harder to imagine is her being born of different parents. It seems to me that anything coming from a different origin would not be this object" (Kripke 1980: 113, his emphasis). The immediate problem, but not the only problem, is that Queen Elizabeth II isn't "given" to us (as Kripke puts it); we're not acquainted with her but only know her by description.<sup>8</sup> We don't have singular thoughts about her but only general ones, that something satisfies the everyday and scientific descriptions available to us. So we cannot imaginatively entertain how things might have turned out for *her*. It doesn't help to think about anyone else either. Kripke conceives of Elizabeth as the biological product of a particular sperm and egg. But biological organisms that result from the union of sperm and egg are theoretical posits, beings of which we're aware only against the backdrop of biological theory, *i.e.* only via description. So we're not in an epistemological position to undertake Kripke's thought experiment in the first place.

The same epistemological problem afflicts Kripke's argument for the more general claim that if a material object has its origin from a certain hunk of matter, it could not have had its origins in any different hunk of matter. Kripke famously claims that this principle was "susceptible of something like proof" (1980: 114, fn. 56). Kripke starts out from the assumption that we have names (rigid designators) of an actual table, the matter from which the table actually came, and some other wholly distinct piece of matter ("B", "A" and "C" respectively). Next Kripke considers a possible world in which B is made from A and a distinct table D is made from C. Kripke then reflects, "Now in this situation  $B \neq D$  ; hence, even

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<sup>8</sup> Rejecting Kripke's argument for origin essentialism in this way isn't to reject the possibility of direct reference *per se* but only for cases where there is no possibility of drawing upon knowledge by acquaintance. Ruth Barcan Marcus also entertains other problems for origin essentialism, even as someone who pioneered the doctrine of direct reference before Kripke. See, for example, Marcus 1990. Another source of concern arises from Kripke's characteristic appeal to the results of introspective psychology. See MacBride 2014: 234-6.

if D were made by itself, and no table were made from A, D would not be B". Kripke concludes that B could not have been made from C. Figuring out how to get from Kripke's premises to the conclusion of his argument without presupposing essentialism has proven to be a notoriously difficult undertaking—because, not least, Kripke appears to just assume that that any table made from A is B.<sup>9</sup> But there's an even more fundamental problem. Kripke isn't entitled to the premise that we have names (rigid designators) for tables and the matter from which they originate, *i.e.* names that aren't disguised descriptions. We aren't acquainted with tables and hunks of matter but we know them only as solutions to puzzles about the phenomena that are presented to us. The point can be made more generally. For the most part we know only that something is *F*. We can construct a counterfactual scenario in which it's also the case that something is *F*. But this neither entails nor presupposes that it's the same *F* in question, not even if we know that something or other uniquely *F*s. This isn't to deny the possibility of *de re* thoughts about objects but only to point out the consequences of the fact that most of our thoughts aren't.

Kripke's case for origin essentialism faces another challenge: there are other thought experiments we can perform, other counterfactual scenarios we can entertain, that pull us in a different direction. For example, we might try to persuade a clueless friend who isn't black to take racist oppression more seriously by saying to him, "If you had been black, you might well have felt intimidated by that police officer". By inviting our friend to reflect upon this counterfactual scenario, from a first-personal point of view, we try to make him realise that had he been born black, he might easily have had good reason to fear police brutality directed against him. This is a piece of counterfactual reasoning designed to elicit empathy that's very familiar from moral, political and everyday dialogue. But it contradicts the necessity of origin. For a person who isn't actually black to have been black would have meant coming from a different sperm and egg.

This reflects the fact that "modal inconstancy", as Lewis described the phenomenon, is the order of the day (1986: 254). We don't have fixed answers to questions about modal profiles that float free of the contexts in which they're asked. Kripke creates for us a context in which the material constitution of tables is especially salient. But there are contexts where it's their design that holds our attention. In a design class talking about the Noguchi table, we can sensibly discuss how the table would have looked if it had been made from different glass. Of course Lewis offered counterpart theory as his favoured explanation of modal inconstancy.

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<sup>9</sup> See, for example, Salmon 1979: 711 and Noonan 1983: 2-3.

Here's a fast track route to Lewis's way of thinking. The phenomenon of size inconstancy is ubiquitous: we don't for the most part have fixed and settled answers to questions about whether things are small or large. In one context we can say that Ben Lomond is large, another that it's small. But there's nothing disturbing about this. We recognise that things aren't large or small *per se* but only relative to a comparison class: Ben Lomond is large for the Scottish Highlands but small for the Himalayas. Different contexts will make salient different comparison classes, determining whether we are ascribing one relative feature rather than another. In a similar fashion Lewis urges us that there's nothing disturbing about modal inconstancy either because attributions of essential and accidental properties aren't absolute but relative too. Something is essentially *F* only if all the (possible) things relevantly similar to it are *F* too and it's the context that settles which class of things are relevantly similar by supplying a counterpart relation. Different contexts favour different essentialist attributions because the counterpart relations they supply, relative to which the essentialist attributions are assessed, vary.<sup>10</sup> For example, the context that Kripke sets up for us when he's discussing whether the table is essentially made from this piece of wood makes salient a counterpart relation that favours sameness of material constitution, whilst the context of the design classroom makes salient a counterpart relation that favours sameness of design.

The knock-on effect of Lewis's strategy for accommodating modal inconstancy is that the things we're talking about don't have absolute modal profiles but only relative ones. So if belonging to a category is a matter of having a certain modal profile then belonging to a category is a relative matter too. Does the Queen belong to the category of rational beings? Relative to some counterpart relations, *e.g.* which hold only amongst world leaders, she does because all the (possible) things relevantly similar to her when such counterpart relations are invoked will have some degree of rationality. But relative to other counterpart relations, *e.g.* which hold only amongst things that have a match of origins, she doesn't because not all the (possible) things that have matching origins are rational.

This is a significant shift from the absolute conception of the categories favoured by the early Wittgenstein, Ramsey and many contemporary philosophers.<sup>11</sup> But it still isn't a radical enough adjustment to the dogmatic outlook. Lewis doesn't explain how to

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<sup>10</sup> See Lewis 1971: 221 and 1983: 42. See MacBride 2005 and Beebe & MacBride 2015 for further discussion of Lewis's counterpart theory and its relationship with Humeanism.

<sup>11</sup> In MacBride 1999: 487-99 it is argued that the absolute conception of categories comes under pressure from a different direction: that if we are Humeans then we should believe there are "category hoppers", entities that transition between categories in different possible worlds.

accommodate the fact of our epistemological situation, that the Queen isn't given to us except as something or other that satisfies a description so we can't formulate *de re* thoughts about her, even less her counterparts, not even relative to a counterpart relation. By contrast, our more radical position, that does accommodate our epistemic situation, emerges from the reflection that ordinary counterfactual reasoning doesn't presuppose the availability of singular thoughts at all.

When we reflect upon whether the Queen could or would have had a happier life as a commoner, we don't perform the mysterious act of thinking of some object independently of how it's described. We do something much more mundane. We construct a counterfactual scenario by imagining that certain descriptions satisfied by the actual Queen are held fixed, whilst other descriptions are permitted to vary. In this case we hold fixed the descriptions available to us of someone who has the personality traits of Elizabeth whilst conjoining the description of a commoner. Against the backdrop of our understanding of how different types of personality perform, we assess how well life would have turned out for a commoner with these character traits. But this process of counterfactual construction doesn't require us to have singular thoughts about Elizabeth or to figure out necessary and sufficient conditions for something to be her counterpart. We just need the ability to hold some descriptions fixed whilst varying others, and then, having done so, to trace out the consequences of the setup described. Nor does it require us to suppose modal constancy either: that there are essential features of an object fixed independently of how it's described. The construction relies only upon a relative notion of essence. That fragment of the total description of a thing carried over into the counterfactual construction counts as essential with respect to the envisaged set-up, the rest accidental. But in other counterfactual constructions, different descriptions are carried over, *e.g.* being an equestrian or a speaker of multiple languages, and these count as essential with respect to these other set-ups.

Quine arrived at a comparable perspective upon the notions of essence and accident: "Relative to a particular inquiry, some predicates may play a more basic role than others, or may apply more fixedly; and these may be treated as essential" (1977: 121). But for different reasons—because he denied that transworld identity made any sense at all. Here the point is different. That for creatures like us, in our epistemological situation, we have little service for transworld identity (or counterparts) because we so rarely entertain singular thoughts of objects. Accordingly we have little service for categories that presuppose transworld identity (or counterparts). The empirical approach to the categories recommended here takes seriously our lack of singular thoughts by forswearing transworld identity, confining

ourselves to what our (general) descriptions of the world actually tell us, reflecting upon the *summa genera* revealed by the rigour of scientific enquiry.<sup>12</sup>

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