
+ • +

THE JOURNAL OF PHILOSOPHY

VOLUME CIII, NO. 1, JANUARY 2006

+ • +

ACTUALIST ESSENTIALISM AND GENERAL POSSIBILITIES*

There is always something which underlies, out of which the thing comes to be, as plants and animals come to be out of seed. The things which simply come to be do so some of them by change of shape, like a statue, some by addition, like things which grow, some by subtraction, as a Hermes comes to be out of the stone, some by composition, like a house, some by alternation, like things which change in respect of their matter. All things which come to be like this plainly come to be out of underlying things.¹

For we call a thing something, when it is that thing in actuality, rather than just in possibility.²

Modalities in their primary use concern counterfactuals about actual objects, and to reintroduce possibilia is to run counter to the admonition of Russell that we “retain our robust sense of reality.”³

* This paper started out as comments on Russellian themes in the work of Ruth Marcus presented before the Philosophy of Language Workshop at the University of California, Los Angeles, on the occasion of the Centenary of Bertrand Russell’s “On Denoting” (*Mind*, xiv (1905): 479–93), with Marcus herself as commentator. I want to thank members of the audience for their reactions at the time, especially Joseph Almog, Tony Anderson, David Kaplan, and Marcus. I also owe thanks to Andrew Irvine, Mohan Matthen, Shelly Rosenblum, Steven Savitt, and Christopher Stephens for further comments and exchanges regarding earlier versions of this paper. I owe a special debt to Almog, whose incisive criticisms led me to set some of the original ideas aside for a different occasion.

¹ Aristotle, *Physics*, Books I and II, William Charlton, trans. (New York: Oxford, 1992), 190b3–9.

² *Physics*, 193b7–8.

³ Ruth Barcan Marcus, *Modalities* (New York: Oxford, 1993), p. 197.

Here is a common conception of modality. Possibilities are spoken of in many ways. Suppose I say that it is possible for me not to be typing now, or, in the subjunctive, that I might not have been typing now. Such a possibility, pertaining as it does to particular things—me, the present moment—is a particular possibility. It concerns how the relevant particulars might have been had they been different from the ways they are. Other possibilities are general possibilities, such as the possibility that there be someone or other not typing at some point or other in time. In contrast to particular possibilities, general possibilities do not pertain to particulars. They obtain or not regardless of what particular things there happen to be. Then there are the mixed possibilities, such as the possibility that there be someone other than me typing in my office now.⁴

Such a broad characterization of the variety of possibilities is often thought to be beyond dispute. Indeed, it is so widespread as to be considered part of the data that any metaphysics of modality will have to account for. Nevertheless, I believe it is mistaken.

During the infancy of the subject in its contemporary guise it was assumed that possibilities are all general. A possibility such as me not typing now was thought to consist in the nonanalyticity of the contradictory, namely, me typing now. So possibility was a matter of consistency. In the language of intensions, the possibility in question reduced to the consistency of the co-instantiation of the intensions of being me, of not typing, and of being the present moment. But with the rising influence of Saul Kripke's *Naming and Necessity*⁵ came an important qualification. Possibilities concerning particulars are not to be construed along such generalist lines. The possibility of me not typing now is not reducible to matters of consistency. There is me and there is the present moment. Given what we are, certain relational properties are applicable to us while others are not. These are matters determined by what we are, not by whether or not the intensions representing us are jointly consistent with the intension representing the relational property of not typing at a time. This means that possibilities concerning particulars are not cheaply had by some consistency considerations at the level of representational surrogates, where the latter are understood to be constitutionally independent of

⁴ I reserve the familiar terminology of "de dicto" and "de re" to mark a distinction in forms of expression rather than in what is being expressed. See final section for a detailed discussion of the familiar distinction.

⁵ Cambridge: Harvard, 1980.

the things represented.⁶ Particular possibilities are afforded to us, rather, by what the relevant things in the world already are and so are grounded in the things themselves and not in some representational surrogates.⁷

And yet general possibilities are still treated along traditional lines. They are still regarded as aloof in not depending on what things in the world there are. The possibility that there be a talking donkey, for example, is generally perceived as determined independently of what things there are, by the compatibility of being a donkey and being a talker. However such compatibility is ultimately unpacked, it is supposed to be independent of how matters stand with actual donkeys. Specifically, if it is possible that there be a talking donkey, then this is not determined as a general matter by what is possible for the donkeys, namely, by whether it is possible for any of them to talk. On many versions of the present conception, if it turns out that it is possible that there be a talking donkey, then this will certainly be evidenced by how something is, be it an actual donkey, a nonactual donkey if such items are permitted by the overall view, or an actual thing other than any actual donkey if it is impossible for any actual donkey to talk and the overall view disallows nonactual donkeys. But this is all just a trickle-down effect of the compatibility of the properties of being a donkey and being a talker. It is the compatibility that is primary in the order of explanation of the relevant general possibility.

And yet it behooves us to ask: How can any possibility regarding donkeys, however general, enjoy such independence from how things

⁶ How to think of such matters of independence between representations and things represented is a rather subtle issue. For an extended discussion, see Ori Simchen, "On the Impossibility of Nonactual Epistemic Possibilities," this JOURNAL, CI, 10 (October 2004): 527–54.

⁷ For present purposes we count David Lewis's counterparts as representational surrogates and so lump his treatment of *de re* modality together with pre-Kripkean accounts such as Rudolf Carnap's. See chapter 4 of Lewis, *On the Plurality of Worlds* (New York: Blackwell, 1986), and Carnap, *Meaning and Necessity: A Study in Semantics and Modal Logic* (Chicago: University Press, 1947). There are still other options for thinking about the determinants of particular possibilities that are neither the generalism (consistentism) of a Carnap nor the particularism (thing-dependence) outlined above. One might suppose, for example, that particular possibilities are irreducible to general ones and yet hold that what is possible is not determined by what the particulars themselves are, but, rather, by whether the intensions applying to them are mutually consistent. Thanks to Almog for discussion here. On such a view, the particulars are needed to fill in the slots, as it were, of the possibilities in question, but whether or not the possibilities obtain is a matter determined solely at the intensional level. To make this more vivid, consider for example the way in which the impossibility of a particular leaf being at one and the same time green all over and red all over is often assumed to derive from the general mutual exclusion of being green and being red.

are with the donkeys? In what follows, I will make a case for the claim that no such possibility can. General possibilities are not fundamentally different from particular possibilities in being independent of what things there are. General possibilities concern portions of the world that are perhaps more scattered, more spread out in space and time, than particular possibilities, but they still concern things in the world. Whether or not there is a talking donkey is whether or not a certain fact obtains. This fact pertains to certain things—the donkeys—and it is determined by whether or not any of them talk. None do. Whether or not it is possible that there be a talking donkey is whether or not a certain counterfactual obtains. It, too, pertains to the donkeys. Is it possible for any of them to talk?—Surely not. So it is impossible that there be a talking donkey.

However, there may be a different question lurking in the background of the question whether there might have been a talking donkey. Sometimes we mean to consider whether or not the world might have gone in such a way as to generate a talking donkey. This is, strictly speaking, not a question about possible being but one about possible becoming.⁸ Is it possible for past conditions of the world to have eventuated in a talking donkey? Might things of the past become a talking donkey? This is certainly a different question from whether or not it is possible that there *be* a talking donkey. And the answer to this latter question is most likely in the negative as well, but not because of how things are with the donkeys, but, rather, because of how things were with early propagators of the donkeys.

In short, if (a) nothing is a possible talking donkey, and (b) nothing could have engendered a talking donkey, then there is no sense in which there might have been a talking donkey. In what follows, I broach this general outlook by exploring its ramifications for a familiar problem in contemporary metaphysics.

I. ACTUALISM VERSUS POSSIBILISM

There is a problem discussed in the modal metaphysics literature that is supposed to afflict what has come to be known as “actualism,” a position that is otherwise thought to be attractive to many metaphysicians. Very briefly, *actualism* is the view according to which there are no nonactual, merely possible individuals. Its dual, *possibilism*, is the view according to which besides actual individuals there are merely possible individuals, individuals such as additional human

⁸For more on the distinction between being and becoming and their different modes, see below.

beings to those who have appeared at some point or other in the history of the world. Admittedly, putting the contrast between the two positions in this way is of limited utility. For even this rough sketch, with its heavy reliance on the loaded notion of *individual*, is couched in difficult doctrines about being that were originally inspired by the model theory of first-order logic⁹ and then transposed into the rather different context of the model theory of quantified modal logic (QML). But this much will have to be taken for granted in order to state the problem that will act as our springboard. The problem is really a problem about how to maintain the actualist insistence that there are no merely possible things in the face of properties that are both actually uninstantiated and cannot be had contingently. It is commonly supposed, for example, that essential properties cannot be had contingently. What essentialism amounts to is even more difficult and controversial than what actualism amounts to. But one thing that essentialism implies, at least initially and before excessive sophistication sets in, is that an essential property such as being a human being is not contingently instantiable. So it is necessary that if anything at all *can* have such a property, then it *must* have it.¹⁰

The final detail required to introduce the problem for actualism has to do with the type of interpretation of QML favored by actualists. An actualist would hold that the intended interpretation of QML is one whereby the set consisting of all and only actual individuals is assigned to the actual world as its domain of quantification, and subsets of it—perhaps proper, perhaps not—are assigned as domains of quantification to other possible worlds. This is supposed to reflect the actualist insistence that counterfactual alternatives to the way the world is do not include alternative individuals to those there are in actuality.

For present purposes, being as they are nonmathematical ones, we may circumvent the question of which semantics—a fixed-domain one or a variable-domain one—is a preferable choice for QML. It is easy to verify informally that if the intended interpretation of QML is as described above, then the Barcan Formula,

$$(BF) \ \Diamond \exists x \phi x \rightarrow \exists x \Diamond \phi x$$

⁹ Cf. W.V. Quine, "On What There Is," *The Review of Metaphysics*, II (1948): 21–38.

¹⁰ This is not to say that the notion of essence is itself modally reducible. For a rejection of the modal reducibility of essence see Almog, "The What and the How," this JOURNAL, LXXXVIII, 5 (May 1991): 225–44, and Kit Fine, "Essence and Modality," *Philosophical Perspectives*, VIII (1994): 1–16.

will come out true, never mind whether it is valid or not. And now here is the problem. Consider the following assumptions:

- (1) ‘ ϕ ’ cannot be had contingently (so ‘ $\Box\forall x(\Diamond\phi x \rightarrow \Box\phi x)$ ’ is true).¹¹
- (2) It is possible that there be a ϕ (so ‘ $\Diamond\exists x\phi x$ ’ is true).
- (3) Nothing ϕ s (so ‘ $\neg\exists x\phi x$ ’ is true).

These seem to be assumptions that an actualist can accept. But from (1), (2), (3), and (BF), a contradiction follows. For by (2) and (BF), something possibly ϕ s (‘ $\exists x\Diamond\phi x$ ’ is true). Let a be such a thing (‘ $\Diamond\phi a$ ’ is true). By (1), a necessarily ϕ s (‘ $\Box\phi a$ ’ is true), and so, a ϕ s (‘ ϕa ’ is true), and so, something ϕ s (‘ $\exists x\phi x$ ’ is true), contradicting (3). Of course a possibilist will deny the relevant instance of (BF) and the anti-essentialist will deny the relevant instance of (1). The problem is a problem for actualist essentialism.

Now consider any ordinary claim that there might have been a ϕ . According to the general outlook on general possibilities espoused above we understand such a claim in one of two ways: either it is possible that there be a ϕ , in which case it is possible for some thing to ϕ ; or else it is possible that something become a ϕ , in which case it is possible for something (or some things) to have given rise to a ϕ . But (2) in the above argument is already a disambiguation of the ordinary claim that there might have been a ϕ —it is the first sense that is at issue. So now, if there really is no ϕ , and if nothing could ϕ as a matter

¹¹ This characterization of ϕ not being contingently instantiable might be contested on the general grounds that concreteness is contingent, and so, to the extent that ϕ pertains to concreta, (1) will have to take the contingency of concreteness into account. For a general defense of the contingency of concreteness, see Bernard Linsky and Edward Zalta, “In Defense of the Contingently Nonconcrete,” *Philosophical Studies*, LXXXIV (1996): 283–94. On such a view, to say that a property ϕ pertaining to concreta is not contingently instantiable might be understood as the modified claim that it is necessary that if anything possibly ϕ s, then necessarily it ϕ s if it is concrete. Let ‘ C ’ be the concreteness predicate. The suggested replacement of (1) will be:

$$(1') \Box\forall x(\Diamond\phi x \rightarrow \Box(Cx \rightarrow \phi x)).$$

(The embedded consequent is just the Linsky/Zalta analysis of x bearing such a ϕ essentially.) While replacing (1) with (1') certainly avoids the contradiction discussed in the text, (1') in the case of concreteness itself becomes the valid

$$\Box\forall x(\Diamond Cx \rightarrow \Box(Cx \rightarrow Cx)).$$

This strongly suggests that concreteness cannot be thought of as on a par with other properties pertaining to concreta. But it is difficult to see why we should think of concreteness in this special way. (To claim, along with the Linsky/Zalta line, that such a treatment of concreteness is recommended by an interpretation of the “simplest” QML surely puts the formal semantic cart before the metaphysical horse.)

of mere possibility without already ϕ -ing, then it turns out that it is impossible that there be a ϕ after all. In other words, (2) is false. A proper appreciation of what it means to deny that there are merely possible things requires us to deny (2) in cases where the property in question is uninstantiated and nothing could serve as a possible instance without already being an instance. In this way, actualist essentialism properly construed is left untouched by the above argument.

This is an underexplored way out of the problem.¹² It turns out to be metaphysically loaded in a particular way that is likely to offend the aesthetic sense of those with a taste for subtle alternations in the desert landscape of formal frameworks. But it is, I believe, well motivated quite independently of the particular way the present problem is posed. We fill in the details by examining cases.

II. UNICORNS

Let us begin with the highly compressed and notoriously difficult discussion of unicorns in Kripke's *Naming and Necessity*.¹³ In that work Kripke famously proclaims that it is not the case that there might have been unicorns. As might be expected, it is highly controversial how to understand Kripke's general grounds for this denial of possibility. There are at least two competing readings of his scattered pronouncements on the subject. One ("definitionalist") faction understands the denial of the possibility as due to some lack in a "real definition" that would specify the species, even as a matter for possible instantiation.¹⁴ Perhaps a real definition in the case of a putative species would be a formula specifying a putative DNA sequence. And surely such a specification is missing for the case at hand. Another ("worldly") faction understands the denial of the possibility that there be unicorns as due to an absence in real-world grounds for the generation of such a thing

¹²A prominent actualist strategy for accommodating properties that are both uninstantiated and cannot be had contingently is the reductionist effort to make possibilist discourse actualistically acceptable. See, for example, Fine's "Postscript," in Arthur Prior and Fine, *Worlds, Times and Selves* (Amherst: Massachusetts UP, 1977), pp. 116–61. Such a program includes a reduction of *de re* modal claims involving the relevant properties so that no mere possibilia will be called upon for their possible instantiation. Much effort and ingenuity have gone into such reductionist programs but from the present perspective they concede too much to possibilism at the very outset. Possibilist intuitions need not be indulged. They demand, rather, to be traced all the way back to their origins and confronted at the appropriate level. This is the approach to be attempted here.

¹³See *Naming and Necessity*, pp. 23–24 and 156–58.

¹⁴For more on the notion of real definition and its assimilation to the notion of essence, see Fine's "Essence and Modality." Fine, however, opts for an actualist reduction of possibilist discourse; see note 12.

as a species, even as a matter for possible instantiation.¹⁵ On such a rendering, a species is itself something that is generated by certain worldly conditions at a particular moment in world history. *De dicto* claims involving species terms are understood as *de re* claims about the relevant species. To say, for example, that some horses are striped is to say something about *Equus caballus* itself, to wit, that some of its specimen are striped. Ditto with respect to saying that it is possible for horses to be striped, or possible that there be horses.¹⁶ And clearly a recasting of the claim that there might have been unicorns along such lines is unavailable due to the absence of the species in question.

Between the two readings of Kripke on unicorns the second seems closer to the overall spirit of *Naming and Necessity* while the first seems closer to the letter of the relevant passages, but this is, again, a matter of considerable dispute. Be that as it may, closer scrutiny of Kripke's own treatment of the unicorn case reveals an interesting lacuna that can be filled by the present understanding of general possibilities. Kripke claims that it is not the case that there might have been unicorns. This is issued as an antidote to the Carnapian tendency to suppose that while there certainly are no unicorns, nor have there ever been any, it is nevertheless possible as a purely general matter that there be unicorns. (Carnap would say that the property of being a unicorn, while *F*-empty, is not *L*-empty.¹⁷) Kripke's strategy is as follows. He first advances the claim that *if* it is possible that there be the species of unicorns, *then* something, some particular species or other ("actual or possible"), is such that it is possible for that thing to be the species in question. Next he asks: Which particular thing is it for which it is possible to be the

¹⁵ See Almog, "The Structure-in-Things: Existence, Essence and Logic," *Proceedings of the Aristotelian Society*, CIII (2003): 197–225.

¹⁶ Perhaps on such a view ' $\exists x\phi x$ ', with ' ϕ ' a species term, may be parsed as: "There is an x such that x is of the kind ϕ ," with "the kind ϕ " understood to refer to the relevant species. Cases where we engage in kind-talk without being in a position to refer to the relevant kinds are exceptional, but the example of ununseptium discussed below may be a case in point. In such a case the above treatment can apply to the constituents of a descriptive reduction of the term. Let "ununseptium" receive the reduction "an atomic element whose instances have a nucleus containing 117 protons." Then x is of the kind ununseptium just in case for all y such that y in an atomic constituent of x , there is a z and a w such that z is a nucleus of y , w is a proton, and there are 117 w s in z . Let us set aside the delicate issue of how to parse the numerical attribution "There are 117 w s in z ." The natural kind and relation predicates " y is an atomic constituent of x ," " z is a nucleus of y ," and " w is a proton," are to be understood as " y bears the relation *being an atomic constituent of* to x ," " z bears the relation *being a nucleus of* to y ," and " w is of the kind *proton*," while the constituent expressions "the relation *being an atomic constituent of*," "the relation *being a nucleus of*," and "the kind *proton*" are understood to refer to the relevant relations and kind, respectively.

¹⁷ See, for example, *Meaning and Necessity*, pp. 64–68.

species of unicorns? No such thing is to be found. It follows that it is not possible that there be the species in question to begin with.

A peculiar feature of this argument is that it treats the target claim that there might have been unicorns as equivalent to the claim that it is possible that there be the species of unicorns. Yet the claims are surely not equivalent. In the language of properties, the first involves the property of being a unicorn while the second involves the property of being identical with the species of unicorns. To see that they are not equivalent, consider a skeptic about species in general who accepts Kripke's conditional claim that *if* it is possible that there be the species of unicorns, *then* some species or other is possibly the species of unicorns. Let the skeptic think that the consequent is false, and therefore the antecedent, because there are no such things as species, and thus nothing for which being identical with the species of unicorns is even a possibility. Such a skeptic can hold that it is possible that there be unicorns despite thinking that it is not possible that there be the species of unicorns.¹⁸

Of course Kripke's own motivations for switching from a consideration of the general possibility that there be unicorns to the particular possibility that there be the species of unicorns is anyone's guess. But the following hypothesis seems plausible. Kripke's original metaphysical insight that possibilities involving membership in natural kinds depend on the actual world to supply the kinds was adulterated by an approach to general possibilities that makes them independent of what things there are. He then sought to assimilate general possibilities involving kinds to particular possibilities in order to preserve the metaphysical insight, for regarding the latter he could claim that they surely depend on the actual world to supply the kinds just as much as the possibility of me not typing now depends on the actual world to supply the relevant particulars, me and the present moment.

But with our general approach to general possibilities we need not force general possibilities involving kinds into the mold of particular possibilities. Switching back from the property of being (identical with) the species of unicorns to the property of being a unicorn, we may paraphrase Kripke's overall argument as follows: *if* it is possible that there be unicorns, *then* something is a possible unicorn. (This shows the germ of truth in (BF) as applied to the present case.) And yet no particular thing is a possible unicorn. So it is not the case that it is possible that there be unicorns to begin with.

¹⁸ On such a view the existence of organisms does not entail the existence of species of organisms.

In keeping with our general approach to general possibilities we concur in denying the general possibility that there be unicorns. If such a thing were possible, then something would be a possible unicorn. But nothing is a possible unicorn. For if “unicorn” is a putative species term, then to be a unicorn cannot be had contingently. This means that if anything were a possible unicorn, then it would already be a unicorn. Yet there are no unicorns. We conclude that it is not possible that there be unicorns to begin with.

Let us go back to the problem for actualist essentialism discussed in the previous section. As it stands, the present strategy for the actualist accommodation of properties that are both uninstantiated and cannot be instantiated contingently faces a potential challenge in the form of the following question: Are there compelling grounds for thinking that all cases involving uninstantiated-yet-noncontingently-instantiable properties are ones for which (2) in the argument of the previous section is false? The example of unicorns in this context can seem distracting. Unicorns are commonly considered paradigm cases of the mythic or the fictive and it may seem that due to this fictive character alone the property of being a unicorn is impossibly instantiated. Whether or not this is a proper view of the case is an interesting question that cannot be pursued here, but in any case we should strive to enrich our diet of philosophical examples. To solidify our sense that the falsity of (2) generalizes to other cases of uninstantiated-yet-noncontingently-instantiable properties, we move on to consider two types of cases that might seem more challenging: one involving an actual past kind and one involving a potentially future kind. Doing so will pave the way for a more nuanced understanding of the present approach to actualist essentialism. The rest of the paper will be devoted to an exploration of the implications of the falsity of (2). It will turn out that properly motivating such a strategy requires alterations in currently entrenched ways of thinking about the subject that are more radical than initial appearances may have revealed.

III. ACTUAL PAST KINDS

Consider the dodo bird. This species, *Didus ineptus*, native to the island of Mauritius, is now extinct. In keeping with our general approach we ask: Is it really impossible that there be dodos? There once were dodos. There are no more. In order to sustain the present existence of dodos, history would have needed to take a different course than the one actually taken. Are there compelling reasons specific to the case for denying the possibility that there be dodos? Because, once again, if there are no such reasons, then from the essentiality of being a dodo, the possibility that there be dodos, and the actual

absence of dodos, a contradiction follows by the general conception of general possibilities espoused here. Also, the two readings of Kripke's grounds for the claim that it is impossible that there be unicorns are not obviously applicable here. There is certainly no lack in a real definition to specify the species *Didus ineptus*. Alternatively, there is no absence in the worldly grounds for generating the species, for dodos did once roam the island. Had history only taken a somewhat different course, the species would not have become extinct.

At this point an obvious retort suggests itself. The alleged problem posed by dodos depends on a presentist reading of the argument for the contradiction. The challenge is to say how it is that it is impossible that there be dodos at present, given that being a dodo is essential to whatever has it and given that there are no dodos at present. But such a temporal reading of the argument leading to the contradiction is independently unwarranted. The dodo challenge dissipates once we understand that argument in a temporally unrestricted way. (2) is indeed true. It is possible that there be dodos because there were once dodos. But (3) is false and for the same reason. There once were dodos, so it is not the case that there are no dodos in a temporally unrestricted way. In short, while history might have taken a different turn, first on the island of Mauritius and then elsewhere as well, this is, strictly speaking, irrelevant to the possibility that there be dodos. Actual past dodos stand witness to the general possibility that there be dodos understood in the temporally unrestricted way. Accordingly, there is also something that is a possible dodo. Any actual dodo of the past will do.

While this dissolution of the dodo challenge is effective as far as it goes, there are signs of trouble lurking in the wings. Consider the temporally indexed property of being a presently living dodo. It may seem *prima facie* possible that there be a presently living dodo. But if that is so, then by our approach something in the world must stand witness to such a possibility. Let us grant that to be a presently living dodo is not essential to whatever has it. For example, a mature dodo in 1650 might have failed to survive into 1650, which is a reliable indicator for it not being of its nature to be a dodo *in 1650*. So (1) is false and the problem for actualist essentialism is avoided. And yet a question persists regarding the general possibility that there be a presently living dodo. What is it by virtue of which it is possible that there be a presently living dodo?— Presumably, something for which it is possible to be a presently living dodo. But it is difficult to see how anything could be a possible presently living dodo without also being a possible dodo. If so, then by the lights of the above reply to the dodo challenge the thing which is a possible presently living dodo is going to be an actual past dodo. But then again when we originally pondered the general possibility that there be a

presently living dodo we meant that history might have taken a different course from the one actually taken so that *Didus ineptus* would not have become extinct. We did not mean this to involve the possible survival of any specimen of the species into the present day, say possibly frozen and then thawed and revived. This latter, somewhat exotic scenario represents a highly remote sense in which there might have been a presently living dodo. What about the more mundane sense, the sense that does not require the possible survival of any past dodo? Is it possible that there be a presently living dodo that is not a past dodo? It certainly can appear so. But if so, then by the lights of our general treatment of general possibilities something would have to be a possible presently living dodo that is not a past dodo. And what might such a thing be?

IV. POTENTIALLY FUTURE KINDS

A second type of case that seems to present a challenge to the general idea that (2) is false when the property in question is both uninstantiated and cannot be had contingently are potentially future kinds. Consider ununseptium, atomic number 117. We suppose that this as-of-yet undetected element is nowhere to be found in actuality. We run the argument again. Suppose it is possible that there be ununseptium. Then by the present conception of general possibilities something or other must stand witness to such a possibility by being a possible instance. Let u be such a thing. Well, being an instance of ununseptium cannot be had contingently. So if u is a possible instance of ununseptium, then it is an instance of ununseptium as a matter of necessity. And so u is an instance of ununseptium in actuality, contradicting the initial assumption that there is no ununseptium.

Let us digress for a moment and set aside the question whether it is generally possible that there be ununseptium. Some may feel torn by their wish to endorse the claim that something is a possible instance of ununseptium while affirming the essentiality of being an instance of ununseptium. Such a tendency merits a digression, for it holds an important clue to filling in the details of the overall solution to the problem offered here.

Scientists are interested in producing an instance of element 117 and there seems to be no good reason for thinking that they are incapable of success in their efforts. Let us assume that this is really so, that it is indeed possible that scientists produce an instance of ununseptium. What would happen in the event of success is the production of an instance of ununseptium. More specifically, a certain transformation of some instance of another atomic element—let us say ununhexium, atomic number 116—into an instance of ununseptium would take place. A new atomic element would then come into being.

Now consider the instance of ununhexium for which it is possible to get transformed into an instance of ununseptium.¹⁹ There may be some inclination to say that it is a possible instance of ununseptium. But if it is a possible instance of ununseptium, then we have a straightforward counterexample to the purported essentiality of being an instance of ununseptium. For essentiality here implies that being an instance of ununseptium is not a contingent matter. Thus, if it is possible for something to be an instance of ununseptium, then it is already actually so. But by hypothesis there are no instances of ununseptium.

One option here might seem to be a revision of our understanding of the implications of essentialism. For example, regarding an essential property ϕ we might want to replace the demanding equivalences

possibly- ϕ -ing \leftrightarrow necessarily- ϕ -ing \leftrightarrow actually- ϕ -ing

with the truncated

necessarily- ϕ -ing \leftrightarrow actually- ϕ -ing.²⁰

But a moment's reflection will reveal that this will not help. For suppose that an instance of ununhexium is transformable as a matter of mere possibility into an instance of ununseptium. And suppose that we opt for the suggested replacement. Still, how can the instance of ununhexium be even possibly an instance of ununseptium? Consider: it is actually an instance of ununhexium. Being an instance of an atomic element other than ununseptium is essential for it, and therefore necessary for it. But it is impossible for anything to be an instance of more than one atomic element. So the instance in question is not a possible instance of ununseptium after all.²¹

¹⁹We might prefer to regard the sum of a given instance of ununhexium and a given proton as that for which it is possible to get transformed into an instance of ununseptium. For present purposes this does not matter.

²⁰In the language of QML ' $\Box\forall x(\Diamond\phi x \rightarrow \Box\phi x)$ ' would be dropped in favor of ' $\Box\forall x(\phi x \rightarrow \Box\phi x)$ '.

²¹A general point looms here. Properties that invariably pertain to what things are, such as being an instance of an atomic element or being of a certain species, cannot be had as a matter of mere possibility. Here is how we can ground this further. First, we suppose that it makes good sense to speak of properties excluding one another. So, for example, being green all over excludes being red all over. And so, being necessarily green all over excludes being possibly red all over. Next, we suppose that for any property ϕ that invariably pertains to what things are, any non- ϕ has properties pertaining to what it is (that is, there is no "prime matter") among which will be found a property ψ that excludes ϕ in the above sense. Now let o be a non- ϕ that is nevertheless possibly ϕ . Well, o is already ψ for some property ψ that pertains to what o is and excludes ϕ . So in order for o to possibly ϕ it would have to be possible for o to be both ϕ and ψ , which is impossible.

The correct alternative is to deny flat-out that the instance of un-unhexium that would get transformed into an instance of ununseptium can survive such a transformation.²² From this point of view it is simply wrong to speak of whatever might get transformed into an instance of ununseptium as a possible instance of ununseptium. The pre-transformation instance I^{PRE} is an instance of ununhexium. Being an instance of ununhexium pertains to what it is and is therefore necessary for it. This means that it is impossible for it to be an instance of ununseptium. Once the transformation sets in, I^{PRE} peters out of existence and the distinct I^{POST} emerges, for which being an instance of ununseptium is essential and therefore necessary.

Going back to the main problem then: Is (2) in the case of ununseptium true? Is it possible that there be an instance of ununseptium? For all that has been said so far, an actualist essentialist who happens to be a definitionalist about essence might be forced to say that it is. There certainly seems to be no lack in a real definition to specify ununseptium, so in this respect the present case is unlike that of the general possibility that there be unicorns. Some special pleading by an actualist essentialist of such a persuasion will be needed in order to establish that it is not possible that there be ununseptium after all. This brings us to our preferred approach to the denial of (2).

V. THE LARGER CONTEXT OF DENYING (2)

On the present conception, to be an actualist is not a matter of simply opting for this or that interpretation of QML, for this or that set of modal principles. Nor is it a matter of accommodating full-fledged possibilist discourse.²³ The actualist should not feel particularly pressed to provide actualistically acceptable paraphrases for each and every claim put forward by the possibilist. Much of what passes for modal platitudes in recent discussions of the subject is already thoroughly tainted by possibilism. To be an actualist requires dealing with the metaphysics directly and letting the logic track the metaphysics rather than the other way around.

²² As in the following passage from Marcus: "Being gold or being a man is not accidental.... No metaphysical mysteries. Such essences are dispositional properties of a very special kind: if an object had such a property and ceased to have it, it would have ceased to exist or it would have changed into something else. If by bombardment a sample of gold was transmuted into lead, its structure would have been so altered and the causal connections between its transient properties that previously obtained would so have changed, that we would not reidentify it as the same thing"—"Essential Attribution," this JOURNAL, LXVIII, 7 (April 8, 1971): 187–202, on p. 202.

²³ See note 12.

By way of introduction to the present approach we subscribe to the following outlook. We begin with kinds. Natural kinds are themselves actual things that are in a certain sense on a par with their instances. As with any actual thing, they tend to bear essential relations to aspects of their emergence in actual world history. The relation of a natural kind to its instances is not a relation of a universal to a particular falling under it, where the former is understood to be constitutionally independent of its applying to anything. Nor is it a relation between an impure set and its members. A species, for example, exists through the existence of, and interactions among, its specimen, not unlike the way a higher organism exists through the existence of, and interactions among, its cells. Something similar may be said about a chemical compound. Being a kind of configuration of atomic elements, it exists through the existence of, and interactions among, its elements. And the same holds for the atomic elements themselves, those being kinds of configurations of elementary particles. The atomic elements exist through the existence of, and interactions among, the elementary particles. And so it goes.²⁴

We can see the relevance of this general outlook to the problem posed by actual past species by considering a related case. Suppose it is possible for my paternal grandfather, who passed away over a decade ago, to have survived to this day. If ' ϕ ' stands for the property of being a living red blood cell originating from his own marrow, then given the possibility of my grandfather's survival we wish to say that there might have been instances of ϕ . How so? We assume that the property in question cannot be had contingently. One sense of the claim, as seen above in the case of dodos, is that some past instances of ϕ might have survived, in which case there is a straightforward sense in which it is possible that there be ϕ s: past actual instances of ϕ are also possible instances of ϕ . But that is not what we would ordinarily mean by the claim that there might have been ϕ s. What we would mean is that there might have been instances of ϕ due to there being some actual conditions underlying my grandfather's past existence that might have conspired, together with some counterfactual conditions underlying his survival to this day, to generate novel instances of ϕ . So it is not that it is possible for some non- ϕ -ing thing to

²⁴ There appears to be a difference between kinds sustained by interactions among their instances and kinds sustained by interactions among constituents of their instances. The topic of kinds is complex and very much in need of further study which cannot be undertaken here.

instantiate ϕ in the requisite sense without being a past actual instance. It is, rather, that under the assumption of the possibility of my grandfather's survival it is possible that some past things generate novel instances of ϕ . And so, some past things are such that they might have generated instances of ϕ . It is in this modified sense, then, that we need to understand the claim that there might have been ϕ s. It is possible that some plurality of things of the past, under suitable counterfactual conditions, give rise to novel instances of ϕ by way of generating them.

Recall our query regarding the possibility that there be a presently living dodo that is not a past dodo. If things had gone differently on Mauritius in the seventeenth century, *Didus ineptus* would not have become extinct. So we feel impelled to affirm the general possibility that there be a presently living dodo. And yet nothing is a possible presently living dodo, for if something were such, then it would also be a possible dodo. And given the essentiality of being a dodo, such a thing would already be a dodo. An unsatisfying rejoinder, as we saw above, is to say that it is some past actual dodo that is possibly a dodo. This is unsatisfying, once again, because the survival of specimen from the seventeenth century is not what we mean when we say that it is possible for the species not to have become extinct. And in any case the possibility of survival of past specimen is on far shakier grounds than the possibility of the survival of the species itself.

A better response is needed, and it is this: let us consider the time before the species became extinct at which possible history of dodo survival splinters off from actual history of dodo extinction. Let us suppose that the actual conditions underlying dodo existence at that time and eventuating in dodo extinction are $c_1, \dots, c_i, c_{i+1}, \dots, c_n$, and let us suppose that some portion of these, c_1, \dots, c_i , together with some counterfactual conditions c_{i+1}^*, \dots, c_n^* , would have eventuated in the continued survival of the species to this day. This is the relevant sense in which there might have been dodos now. Some actual conditions underlying past dodo existence, together with some counterfactual conditions underlying dodo survival, might have given rise to presently living dodos. In other words, it is possible that some plurality of things of the past, under the right conditions, would have generated presently living dodos. The claim that it is possible that there be presently living dodos that are not past dodos is rejected in favor of the claim that it is possible that there be generators of novel presently living specimen of the species.

Turning now from a *de dicto* mode of expression to a *de re* mode, is there anything of which we can say that it is a possible presently living dodo? No, there is not. But if we reject the *de dicto* claim that it is

possible that there be presently living dodos that are not past dodos in favor of the claim that it is possible that something of the past generate presently living dodos, then we also get a *de re* dual. Some aspects of c_1, \dots, c_i —aspects of the actual history of the species *Didus ineptus*—might have given rise to contemporary instances of the species. What might those aspects of c_1, \dots, c_i be?—Things of the actual past, which, under suitable counterfactual conditions, would have generated dodos and sustained dodo existence to this day. In short, things of the actual past, perhaps the last generation of dodo eggs that was actually destroyed, had an unfulfilled *potentiality* to become dodos, which would have generated later dodos in turn, and so on and on all the way up to the present time. This does not require that anything be a possible presently living dodo that is not a past dodo. In short, potentiality without the corresponding possibility is the key to a properly motivated denial of (2) of the problem for actualist essentialism.

Before we continue, a general reminder about being and becoming—and their modes: possibility and potentiality—is in order. Consider a seed of an oak tree, or a fertilized human egg. Of such things we say that they are potentially an oak tree and potentially a human being, respectively. By this we mean that the seed might become something else, an oak tree, and that the fertilized egg might become something else, a human being. By this we do not mean that the seed might be an oak tree, or that the fertilized egg might be a human being. That would be to say that something that is not a tree is possibly a tree. But being a tree is essential to whatever has it, so if the seed is possibly an oak, then it is already an actual oak. And yet the seed is most certainly not an oak. An oak seed is no possible oak and a fertilized human egg is no possible human. But an oak seed and a fertilized human egg are *potentially* an oak and a human, respectively. Potentiality is a matter pertaining to what the seed and the egg might become. Potentiality is possible becoming.

So again, why is it that we are inclined to affirm that there might have been presently living dodos? Not because we think it possible for anything to *be* a presently living dodo. This option either violates the essentiality of being a dodo or else represents a possibility far too remote to be taken seriously. We think that there might have been a presently living dodo because we think it possible that some plurality of things of the past *become* a presently living dodo. And so we think that something (some things) is (are) such that it is possible for it (them) to have become a presently living dodo. But (2) is false: it is not the case that it is possible that there be a presently living dodo. The falsity of (2) removes the threat of the contradiction.

Similar remarks apply to the possibility that there be ununseptium. We think that there might have been ununseptium even in its actual absence, not because we think it possible that there *be* an instance of ununseptium. It is impossible that there be an instance of ununseptium because it is impossible for anything to be an instance of ununseptium. And yet, something might have become an instance of ununseptium. Perhaps some instance of ununhexium might have become an instance of ununseptium if conditions were right. This is no violation of the essentiality of being an instance of an atomic element. In the event that we succeed in actualizing ununseptium, something—an instance of ununhexium, say—will go out of existence and something else will come into existence. And if it is possible that something become an instance of ununseptium, then something is such that it is possible for it to have become an instance of ununseptium. Once again, due to the falsity of (2) no contradiction is forthcoming here either.

As a further illustration of the present approach we return to the example familiar from the literature on actualism of the possibility of having a brother despite being actually brotherless. Let us assume that given that I have no brother, nothing is such that it could have been a brother of mine.²⁵ The present suggestion is that if it seems that I might have had a brother, then this is only because it seems possible that things of the past become a brother of mine, which is to say that things of the past are such that it is possible for them to have become my brother. This is not to say that it is possible that anything be a brother of mine. The latter is indeed impossible. But we can certainly suppose it possible that genetic materials from my parents generate another male offspring. If so, then we can also say of such genetic materials that they might have become a male sibling of mine without making the preposterous claim that the genetic materials themselves somehow constitute a possible brother of mine. In short, our general diagnosis as to why we are drawn to the relevant instance of (2) in cases where it is impossible for anything to ϕ is that we think it possible that things might have gone in such a way as to generate a ϕ . It is possible that something *become* a brother of mine. And this certainly does not entail that it is possible that anything *be* a brother mine. The quantifier ranges over everything. And there is just no possibility that being my brother be instantiated by anything.

²⁵ The noncontingency in this case is best construed as that of the relational property *being a brother of*. If any two things are possibly related in this way, then they are related in this way as a matter of necessity and so already related in this way.

VI. *DE DICTO* AND *DE RE*

To see why such a treatment is appropriate for the cases at hand we need to step back and consider any uncontroversial claim schematizable by ' $\diamond\exists x\phi x$ ', say that possibly something other than the thing occupying the corner of this room might have occupied it instead. What grounds do we have for thinking any such *de dicto* claim is true? Intuitively, we think that something other than the actual occupier is a possible occupier of the corner. In other words, we think that of all the things there are, something else might have occupied the corner. And we think this because we think that occupying the corner is not precluded by what something other than the actual occupier is.

An alternative and less intuitively appealing explanation for why think that the *de dicto* claim is true is an explanation along the following lines. Let the actual occupier be *o* and let its spatial extension and orientation relative to the corner of the room be *E*. We might think that the properties of having-oriented-shape-*E* and being-other-than-*o*—the latter understood to involve some purely qualitative specification of what it is to be *o*—are possibly co-instantiated. And why should we think this?—Because such co-instantiation gives rise to no contradictions within the overall story of what is projected to be the case under relevant generalizations about the subject matter at hand.

So we have two types of explanation, a particularist one and a generalist one. The former type of explanation is generally preferable and is the more natural of the two, but a full comparison between them would extend beyond the scope of this paper.²⁶ For present purposes the following remarks should suffice. The first take on *de dicto* modal claims considers their truth or falsity to be determined by what things there are, while the second approach considers them not to be so constrained. This difference is reflected in a contrast between two ways of conceiving of counterfactual possibility more generally. On the one approach, counterfactual possibility concerns what things would have been like had they been different than the ways they are. Some of them would have been different from the ways they in fact are. Others would not have come to be in the first place. But in general, counterfactual evaluation concerns the world *qua* things. Not so on the second approach. The second approach considers counterfactual possibility to be a matter of counterfactual co-instantiation of properties. And this is supposed to be independent of what things

²⁶ For further discussion of the issue as it arises for *de re* modal claims see my "On the Impossibility of Nonactual Epistemic Possibilities," pp. 534–40.

there happen to be. Strictly speaking, on the second approach counterfactual possibility is not determined by what things would have been like had they been different from the ways they are, but, rather, by which properties would have been co-instantiated. From this perspective *de re* modal claims are exceptional and thus deserving of special treatment. Typically, they have been thought to reduce to *de dicto* locutions.

The second approach has certainly enjoyed, and continues to enjoy, widespread appeal, and it is worth pausing to reflect on how this came about. It may be traced back to two sources. One source is a certain way in which the medieval distinction between *de dicto* and *de re* has been appropriated in recent times. According to this received view, *de dicto* modality is modality pertaining to *dicta*, where the *dicta* themselves are understood to be fundamentally thing-neutral.²⁷ In the wake of the so-called New Theory of Reference we ought to remain highly suspicious of such thing-neutrality.²⁸ A different and more proximate source of the appeal of the second approach to *de dicto* modal claims is the contemporary philosophical influence of the variable-domain semantics for QML introduced by Kripke. Taken as a guide to the metaphysics of modality, Kripke's formalism turns what things there are, what things fall in the range of the quantifiers, to be a matter that is itself open to counterfactual variation. An important outcome of this general license has been the prevalent philosophical sentiment that letting what things there are constrain what we claim to be possible *de dicto* is to succumb to a parochial bias. But we need to consider afresh whether such an attitude is justified. After all, within Kripke's formal apparatus counterfactual scenarios are counterfactual by stipulation. Possible worlds (the set Kripke labels '*K*') are just indices of which the actual world ('*G*') is one. And the latter is distinguished from the rest by nothing more than being so desig-

²⁷ Apparently this is not how the staunch nominalist Abelard thought of the distinction between *de re* and *de dicto* he introduced. According to William Kneale, Abelard did not regard modality *de dicto* as genuine modality at all unless it derived from modality *de re*. See Kneale, "Modality *De Dicto* and *De Re*," in Ernest Nagel, Patrick Suppes, and Alfred Tarski, eds., *Logic, Methodology and the Philosophy of Science: Proceedings of the 1960 International Congress* (Stanford: University Press, 1962), pp. 622–33, especially at p. 624.

²⁸ See my "On the Impossibility of Nonactual Epistemic Possibilities" for more details. It should be noted that while some adherents of the second approach to *de dicto* modal claims (for example, Kneale) do appear to suppose not only that counterfactual co-instantiation of properties is independent of what things there are but also that the properties themselves are constitutionally independent of what things there are, the second commitment is not compulsory. The point in the text is meant as a diagnosis of a tendency to think of *de dicto* modality in a particular way.

nated. Specifically, it is not distinguished from the rest by what constitutes it. Yet surely counterfactual evaluation properly so-called is a consideration of what the world would have been like had the facts been different in specified ways. And while variation in what facts there are may require *some* variation in what things there are, it is a mistake to think of the former variability as entirely unconstrained by what things there are. If it were so, then we would be hard pressed to see how modal claims concern the world at all. For we think that what things there are in the world is of primary importance to any consideration of what the world might have been like for the purposes of counterfactual evaluation. In what, after all, does the identity of the world consist if not in what things constitute it? The license to leave things out of consideration in counterfactual evaluation is a license to leave the world itself out of such consideration. To put the matter somewhat dramatically, it is but a short step from taking Kripke's formalism with metaphysical seriousness in letting *de dicto* modal claims be unconstrained by what things there are to regarding the world as a point of evaluation, a mere index.

Of course more needs to be said against the second approach to *de dicto* modal claims and in favor of the first. This will have to be deferred to another occasion. The foregoing should at least give some indication of how the argument would run. In the meantime we opt for the first approach. With this type of understanding on hand we can easily see why it is impossible that anything be a brother of mine. Such a thing is impossible because nothing in the world is such that it might have been my brother. *Nothing* has a nature compatible with being a brother of mine, so the claim that it is possible that something be a brother of mine is false. But while the original claim is false, another claim in the vicinity is true, namely, that it is possible that something become a brother of mine. And the latter claim is true by virtue of the past existence of some genetic materials from my parents (or what have you).

Could we run the argument against actualist essentialism with becoming my brother instead of with being my brother? Let ' ϕ ' be being my brother and ' ψ ' be becoming ϕ . As we saw above, it is impossible that anything ϕ . But it is possible that something (a plurality of things) become ϕ , and so possible that something (some things) jointly ψ . So something (some things) possibly ψ s (jointly ψ). And yet nothing ψ s. An analogous problem would arise for this case only if ψ -ing could not be had contingently. But it had better turn out not to be so. (Which is not to say that *possibly* ψ -ing, that is, *potentially* ϕ -ing, that is, potentially being my brother, may not be essential to whatever has it.) For suppose that ψ -ing could not be had contingently. Well, ψ does

not actually apply to anything, so presumably it would be impossible for it to apply to anything. Generalizing from this case would yield that there are no unactualized potentialities. And yet unactualized potentialities abound.

Finally, it may be thought that the real problem cases for actualist essentialism are ones in which what seems intuitively possible is for some property cleverly constructed so as not to be capable of being instantiated by anything actual to be instantiated. Such a construction need not employ the term “actual” itself. For example, it may be thought possible that there be an additional carbon atom to those there are, that is, additional to those appearing at some point or other in the history of the world. What makes such cases interesting is their high degree of generality. The properties are defined so that their possible instantiation would be as free as can be from what particular things there are. But from the present perspective this type of neutrality is an illusion. If the possibility envisioned is general enough, then it may seem difficult to pinpoint any particular item (or items) that might become an instantiator of the property. For example, if the possibility that there be an additional carbon atom is indeed general enough, then it may seem that there cannot be any item(s) to point to as the thing(s) that might become an additional carbon atom. The present proposal is that what might have generated an additional carbon atom is something occupying a relevant, sufficiently comprehensive portion of space-time. But again, it is impossible that anything *be* an additional carbon atom.

ORI SIMCHEN

University of British Columbia