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 # 21

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How To Tell Universals From Particulars

How to tell universals from particulars

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comments welcome

Abstract

I reassess the famous arguments of Frank Plumpton Ramsey (1925) against the tenability
of the distinction between particulars and universals and discuss their recent elaboration by
Fraser MacBride. I argue that Ramsey's argument is ambiguous between kinds and properties
and that his sceptical worries can be resolved once this distinction is taken into account. A
crucial role in this dissolution is a notion of what is essential to a property. I close by some
epistemological considerations.

1 Ramsey's challenge

Frank Plumpton Ramsey argued in 1925 that "the whole theory of particulars and universals
is due to mistaking for a fundamental characteristic of reality what is merely a characteristic
of language" (Ramsey 1925: 13,405). In this paper, I want to reassess his arguments and the
arguments of others to the same effect, elaborate their criticism of the traditional distinction
between particulars and universals and see how much of it can be salvaged.

Quickly dismissing alleged differences between universals[1] and particulars of a physical or psycho-
logical sort, Ramsey first undercuts the most obvious way of finding a 'logical' difference, namely
the contention that particulars must, whereas universals may or may not occur as the subject, as
opposed to the predicate, of an atomic proposition. His argument to this effect is that

Socrates is wise. (1)

and

Wisdom is a characteristic of Socrates. (2)

"assert the same fact and express the same proposition" (Ramsey 1925: 12,404), while having
their subject and predicate exchanged respectively. A distinction based solely on the difference
in grammatical role between the subject and the predicate term in (1) thus does not seem to cut
any ice. Two lines of criticism immediately suggest themselves: First, (1) and (2) incur different
ontological commitments and therefore cannot be synonymous (Simons (1991b: 152), Mulligan

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[1]By 'universal' I mean here and in the following whatever it is that, if it existed, were involved, over and above
Socrates, in the truthmaking of simple sentences such as "Socrates is wise". I use "property" as the ontologically
non-committing generic term (properties are semantic values of predicates, whatever their ontological analysis is).
The arguments I discuss and put forward may be suitable adapted to apply to fusions or sets of tropes.

(2000: 12)); second, "Socrates", the subject term of (1), is not the predicate in (2) (Simons (1991b: 152), Mulligan (1998: 12)). (1) and (2) are then analysed as "Fa" and "Gb" respectively, with relational, but nevertheless atomic, properties F (*being wise*) and G (*being a characteristic of Socrates*).

Unfortunate as this is for the friends of the distinction, both these arguments beg the question against Ramsey. Ramsey's argument, as I understand it, is best presented as follows: We start with the sentence "Socrates is wise", without any particular logical form attached to it. Someone who wants to ground the distinction between particulars and universals on a grammatical asymmetry between the terms representing them e.g. in the sentence under consideration has to claim that *at most one* of two possible precisifications of its logical form, namely "... is wise(Socrates)" (Fa) and "... is a characteristic of Socrates (Wisdom)" (Gb), gives the true ontological picture. Ramsey does not have to dispute that, *within* a theory of logical form, these two precisifications differ e.g. with respect to what they logically entail – he only has to ask what makes us prefer one over the other. If we choose the first horn, as most of us probably would, we have to justify it against the second (this was the way Ramsey originally put the dilemma). If we choose the second, we have a symmetrical obligation – and the additional difficulty of explaining what *being a characteristic of Socrates* and, say, *being a characteristic of Plato* have in common.

After this first critique of the legitimacy of the distinction, Ramsey (1925: 14,405) goes on to question the prospects of any distinction based on the subject/predicate model on an even more basic level. The subject/predicate distinction, he claims, is inapplicable to complex propositions. Surface grammar does not give us any ground, then, to accept complex and relational universals, i.e. universals which occur in propositions the categorical structure of which they not uniquely determine.[2] If there were such a ground, Ramsey (1925: 14,406) asks, how could it then be the case that $(\lambda x(xRa))b$, $(\lambda y(aRy))b$ and $(\lambda x, y(xRy))(a, b)$ are (logical forms of) the same proposition, given that they have different components?

This argument can be seen as questioning Russell's notion of the 'logical subject' of a phrase. There is no canonical way, Ramsey suggests, to mark out one or several of the singular terms occurring in a sentence as being its logical subject or subjects. Because this choice is arbitrary, it lacks an ontological ground.

This problem already surfaced in the work of Frege whose thoughts admit of several equally legitimate analyses and have no joints privileging one of them above the others: our carving them up in one rather than another way is not based on a real distinction. Their predicative and their non-predicative elements are separated by *fiat*, not by *bona fide* boundaries. If thoughts consist of saturated and unsaturated parts (cf. e.g. Frege 1906: 208–210), and if two thoughts are identical iff someone who does not hold them true or false conjointly fails to grasp at least one of them,[3] what assures us then that two thoughts are identical iff they have the same parts? The difficulty is aggravated by the fact that Frege repeatedly claims that different decompositions of a thought may be equally correct,[4] and that the composition of a sentence by and large (or at least in a logically perfect language as the concept-script aspires to be) corresponds to the composition of the thought expressed (cf. e.g. Frege 1914: 243). In "Über Begriff und Gegenstand", he says that the thought expressed by "$\exists x(x^2 = 4)$" may, with equal right, be represented by "There is at least one square root of 4", by "The concept *square root of* 4 is non-empty", and by "the number 4 is such that there is something she is the square of". In this context, Ramsey's worry may then be reinstated as follows: what justifies us in claiming that there is one particular thing that is the

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[2]Ramsey includes under this heading both relational and impure universals, the latter arising from logically complex propositions.

[3]Equi-pollence ("Äquipollenz"), defined in this way, is only one of the criteria Frege gives for the identity of thoughts (Frege 1906: 213). He uses it in his letters to Husserl to justify the claim that the active/passive transformation preserves the identity of the thought (Gabriel et al. 1976: 105).

[4]This thesis may be found in "Über Begriff und Gegenstand" (Frege 1892: 173), in a letter to Marty (29.7.1882) (Gabriel et al. 1976: 164) and repeatedly in the posthumous writings (Hermes et al. 1969: 155,203,209,218). He goes as far as to claim that the same assertion may be *of* ("von") a concept according to one conception ("Auffassung") of it, and of an object according to another (Frege 1892: 173).

unsaturated part of the (unique) thought expressed by those sentences?

If we dismiss any distinction based on grammar, Ramsey asks, how are we then to explain (away) the intuitive difference between (what we unanimously take to be) particulars and (what we unanimously take to be) universals? In what exactly does this difference consist? Ramsey explicates it by what Simons (1991a) calls "variation classes". "Socrates . . ." seems to give us but one such class, namely the class of sentences in which "Socrates" occurs. ". . . is wise", however, seems to give us two: the class of sentences of the form "x is wise" in which "wise" occurs as part of the predicate and the (wider) class of sentences of the form "f(wise)" (including "Neither Plato nor Socrates are wise", "nobody is wise" etc.) in which it occurs in any position. Do we not, then, have the grammatical difference we were after? We seem so, Ramsey argues, only because we tendentiously interpreted the data. All we have to do to restore symmetry is acknowledging basic universals – he calls them 'qualities' (as opposed to 'characteristics') – and form "Socrates is q" for qualities q as opposed to "f(Socrates)". For both "Socrates" and ". . . is wise", then, do we have a wider and a narrower variation class.

Colin McGinn (2000: 55–56) has elaborated Ramsey's symmetry considerations into an argument against the Quinean contention that predicates have 'divided reference', i.e. are true of things but do not denote any properties: "a" in "Fa" stands for a single entity of which we predicate a plurality to which "F" 'dividedly' refers; Fa is true iff the referent of "a" belongs to the extension of "F". McGinn's point is just that this picture is not forced on us: we may with equal right construe "Fa" differently, with "F" referring to a property and "a" referring 'dividedly' to the set of all and only the properties a has (its 'secondary extension'). "Fa" would then be true iff the extension of the predicate is a member of this secondary extension of the singular term.[5] Again, we have a symmetrical picture: any semantics committing us to particulars may uniformly be translated into another semantics committing us to universals.

2   Metaphysics to the rescue?

The most common and general criticism made of Ramsey's symmetry arguments is that he only considers logico-linguistic means of drawing the universal/particular distinction and too quickly dismisses psychological and ontological (he calls them "physical") resources to do so (cf. e.g. Simons 1991b: 158–159). In a series of recent papers, Fraser MacBride has tried to back up Ramsey's position in this respect, arguing that no obvious ontological criteria suggest themselves and that the possibility of a deep-rooted metaphysical indeterminacy has to be taken seriously. MacBride (2002) considers, and rejects, three ways of appealing to a metaphysical asymmetry of the exemplification relation.

The first option appeals to numerical patterns of exemplification, the idea being that it is characteristic of universals that they have a definite adicity, i.e. that for any universal, there is a definite number of items it connects. The obstacle to this view, as MacBride points out, is the apparent conceptual coherence of *multigrade* universals, universals which connect an indefinite number of items, such as those expressed by ". . . cause · · · ", ". . . are adjacent", ". . . are consistent", and which therefore resemble particulars that may enter into an indefinite number of atomic facts.[6]

The second option is to help oneself to an asymmetric exemplification relation and postulate that particulars always figure in the first position while universals occur in the second as well as the first (if higher-order universals are admitted). The difficulty with this proposal is to explain the

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[5]A possible precursor of this line of argument may be found in the contention of Nelson Goodman (1978: 347–348) that discusses the view that "a predicate applies initially to a property as its name, and then only derivatively to the things that have that property". He thinks this view is mistaken on the ground that nominalists might want to cut the middleman out.

[6]Another problem with this first proposal is the apparent conceptual coherence of higher-order universals, having their own adicity and thus making their exemplifiers multigrade: ". . . is red" would then be unary, in virtue of connecting with "this table", but also dyadic, in virtue of connecting with ". . . is a brighter colour than . . .".

asymmetry of the exemplification relation without relying on the different categorical status of its relata, which would beg the question against the Ramseyian skeptic.

The third option, finally, is Frege's: universals are essentially 'incomplete' and in need of 'saturation', while particulars are 'complete' and able to 'stand alone'. These terms, however, are just metaphors: nothing assures us that particulars, in need of being 'glued' to universals to give us facts, are likewise 'unsaturated'. Even if 'unsaturatedness' may sensibly applied to thoughts at all,[7] it cannot give us the distinction we are after: The denotation of a predicate like "...smokes" is said to be 'unsaturated' because it is in need of something else to form a well-formed sentence like "the Pope smokes". It can also, however, be completed by something which again is 'unsaturated', like the second-level predicate expression "someone".[8] Not all entities terms for which can complete an 'unsaturated' expression are therefore particulars. Neither are all those entities terms for which are in need of 'saturation' properties: As Kaplan (1977) remarked, demonstratives are also in need of something else to give a truth-evaluable content.[9]

The exemplification relation by itself, then, does not seem to hold much prospect for a non-circular demarcation of universals and particulars: we understand it as the relation that holds between a particular a and a universal F which holds iff a is F – it seems that not much more can be said at this point. Another road is still open to us, however: Apart from taking recourse to the exemplification relation, universals and particulars might also be distinguished by their overall metaphysical properties.

A first idea, what MacBride (1999: 489) calls the "spatial conception", would be to characterise properties by their recurrence, i.e. to say that something is a particular iff it cannot exist at two wholly distinct places at the same time. This view, as Lowe (2002: 348–350) has noted, faces several grave difficulties. If time-travel is possible, then a particular may exist at different places at the same time – and we should not rule out time-travel just because it would turn particulars into universals. The criterion proposed is not sufficient neither, for there may well be universals which cannot be said to exist in space and time at all (or are at least not *necessarily* spatio-temporally located) or which are necessarily exemplified just once.

A second attempt might be to argue that universals, but not particulars, are wholly qualitative, in the sense that the following principle of identity of indiscernibles holds of them:[10]

1 (Identity of Indiscernibles). *If x and y are indiscernible, then they are identical.*

With respect to particulars, (1) is a substantive metaphysical principle which may well fail to be necessarily true. For universals, however, (1) seems definitionally true, at least if resemblance among universals is analysed as partial identity, as Armstrong (1997: 50) would have it.[11] Appearances, however, may mislead us: The problem with this second attempt is precisely that there is a

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[7]For reasons mentioned above, this is highly dubious. Kemmerling (1990) has argued that Frege's thoughts (at least those expressed by logically simple atomic predications) are best conceived of not having parts at all: "unsaturatedness" would then be applicable only on the level of "sentences-under-a-particular-decomposition". As Mayer (1990: 45) has noted, however, Frege locates the multiple analysability of sentences expressing one and the same thought at the level of 'appearances' (cf. his draft for "Über Begriff und Gegenstand": (Hermes et al. 1969: 117, 2nd column, f)) – the claim that thoughts are essentially *logically* structured is thus open to him, even though it would be quite ungrounded.

[8]Higher-order universals are problematic for Frege on yet another count: how can two equally 'incomplete' entities, if 'glued' together, give us something 'complete'? Another problem, noted by Caton (1962: 471), is that there is not one concept of unsaturatedness on Frege's theory, but an infinity of such: one for every level of the hierarchy of types.

[9]Kaplan (1977) speaks of a demonstration, conceived of in Fregean terms, while Kaplan (1989) prefers to speak of a "directing intention". It is far from clear that either gives us the right truth-conditions: there are many cases where I refer by "this" to a, even though I have the intention to refer to b. Typically, these are cases of "mediated" demonstration (as when I am pointing to a picture which I take to be a picture of b but which depicts a). But we still have *something* that 'completes' the (use of the) demonstrative.

[10]This view has been explicitly endorsed by Sellars (1948: 301), Armstrong (1978: 110) and Armstrong (1989: 106) and seems implicit in many conceptions of universals.

[11]Cf.: "Different universals cannot resemble exactly, because if they did, then they would be the same universal." (Armstrong 1997: 50)

plausible view taking identity of properties across possible worlds to be primitive and attributing to them individual essences or *quiddities*.[12] Such quiddities would play the role haecceities play for particulars and we would again have a symmetrical situation.

A third approach would point out that universals, contrary to particulars, are ontologically dependent entities. This would follow if they were construed along an Aristotelian, *de re* model which makes the following true:

2 (Exemplification requirement). *All universals are exemplified.*

David Armstrong, the prime defender of realism about universals, has taken (2) to legitimate the acceptance of universals.[13] Universals, on this conception, are one-sidedly and generically dependent for their existence (ontologically dependent) on the particulars exemplifying them, while particulars specifically depend only on their essential properties (if they have any). The problem with this view, again, is that it may be plausibly contested: if bare particulars are metaphysically impossible, symmetry is restored again.

3   The status of the distinction

Let us take stock. We seem to have arrived at a negative conclusion: as soon as we have accepted universals in our ontology, ontological underpinnings of the semantic role of predicates, we seem to have lost particulars. There does not seem to be a non-question-begging way of drawing the distinction between universals and particulars.

It is instructive, however, to review the reasons for our subsequent failure to draw the distinction. They fall into three groups: a distinction based purely on logical grammar falls prey to canonical rephrasability; distinctions based on an asymmetry of the exemplification relation beg the question; distinctions based on general metaphysical characteristics presuppose substantive theories as to what universals are. Ramsey's worry, it is to be recalled, was not that we do not know what universals are. It is the metaphysicians' job to tell us that. It was rather, whether we are justified in presupposing that we know what we are wondering about when we wonder what universals are. What we need, then, is a basic metaphysical distinction, sufficiently independent from particular theories of what universals are, that constrains rephrasability and makes exemplification asymmetric. Before embarking on our search for such a distinction, however, we have to get clearer about what we are looking for.

Ramsey's argument, exposed at the beginning of this paper, may be put as follows: for any sentential matrix $S(a, b)$ which features (what we would ordinarily think of) a proper name a and (what we would ordinarily think of) an open sentence b, we have a bijective function $a \mapsto c$ and $b \mapsto d$ such that $S(d, c)$ is a sentence which cannot be assumed to differ in ontological status from $S(a, b)$ without presupposing a prior distinction between particulars and universals.[14] The worry with this line of argument is that, even if we agree that "... is wise" stands for a property in about the same way than singular terms stand for their bearers, "wisdom" is importantly different. "Wisdom", as it occurs in "Wisdom is a characteristic of Socrates" (2), stands for a *kind* rather than a property: it takes adjectives ("ironic wisdom"), nominal modifiers ("Socrates' wisdom"),

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[12](Cf. Robinson 1993: 19). This is the view Black (2000) attributes to David Lewis, though I will argue below that this attribution is incorrect or at least highly misleading. Black (2000: 96–99) argues that it is untenable, on the grounds that it commits us to there being proper class many possible worlds, but there are good independent arguments that we are committed to this anyway. Black's own theory, identifying possible worlds with mathematical structures, has the drawback to be committed to (1) for possible worlds, while both Lewis (1986: 224) and Lewis (2001: 606) were agnostic on the question of non-identical indiscernible worlds.

[13]Although Armstrong's argument for (2) used to be naturalism, the conceptualist language in his more recent work suggest a more robust ontological rationale: "An unsaturated entity is naturally seen as a mere abstraction from actual states of affairs, saved from being a vicious abstraction only because there are always saturating particulars." (Armstrong 1997: 38)

[14]In his original example, "Socrates" was mapped on "... is a property of Socrates" and "... is wise" on "wisdom".

may be measured ("much more wisdom") and does not allow for negation – all this in contrast both to "…is wise" and to "being wise".

Kinds differ from properties in that they are instantiated, not exemplified: their relationship to the things they qualify is the one between types and their tokens or between the species and one of its exemplars.[15] The distinction between properties and kinds in place, however, we get two versions of Ramsey's transformation: one mapping a proper name a on "…is a kind instantiated by a" and predicates on their corresponding kinds, another one mapping a on "…is a property exemplified by a" and predicates to proper names of the corresponding properties. Instead of one argument, we therefore get two: one against the distinction between particulars and properties, another one against the distinction between particulars and kinds. I will argue that the first is inconclusive and that the second is harmless and start with the second.

4   Properties and kinds

Kinds and properties, as I said, are very different: kinds are instantiated, properties exemplified; kinds tell us *what* a thing is, while properties characterise *how* it is. Kinds and properties are obviously interrelated: to instantiate the kind MAN is to exemplify the property *being human*.[16] They differ mostly in that kinds cannot be plausibly said to be 'unsaturated' (on any acceptable understanding of this term), they are themselves not predicative, though they capture and codify the content of a predication.

Following D.W. Baxter (2001), I conceive of kinds as something like classes, though with a membership relation construed non-extensionally in terms of the accompanying property. Kinds and properties are therefore closely interrelated: as I said, to be a member of the kind MAN, something has to exemplify the property *being human*. It is important to distinguish them, however, for they answer to different metaphysical purposes. Kinds are classificatory in a way properties are not. It is true that we may classify things *by* their properties, but we classify them *into* kinds. This does not mean that kinds are man-made. Different classification may better or worse match the joints in nature. Classification by kinds, however, is typically a high-level phenomenon – it is grounded in, but not reducible to, what qualitative features the classified particulars have. Classification into kinds is a way of privileging some features over others: it is to say what similarities are causally relevant for middle-sized objects as we are. The similarity in question is typically less than perfect: it is true that dogs, by nature, have four legs and hence it is true of the kind DOG to have four legged exemplars – even though the loss of a leg does not turn dogs into non-dogs.[17] While it makes sense to accept in one's ontology only the perfectly natural, completely determinate properties, the same move for kinds would be ridiculous. We need more than the ultimae species, and typically the whole Porphyrian tree. While every property determines a kind and every kind a property, they cannot be reduced to each other. While it is true that the Dog is four-legged, that Red is a colour and that the Apple-Blossom is the state flower of Michigan, the same is not true of the corresponding properties (cf. Wolterstorff 1970: 259).

Properties and kinds do not only differ metaphysically, they also differ in the grammatical behaviour of their singular terms. Kinds are most clearly designated by general terms like "man",

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[15]Both the type/token and the species/exemplar distinction explain the ambiguity between what we might call 'generic' and 'individual' counting in the answers to questions like "How many words are on the black-board?", "How many different plants do you have in your garden?" (Wolterstorff 1970: 237).

[16]A different construal of the relation between kinds and their instantiations takes tropes to be the instantiations of kinds. Because tropes are ontologically dependent on their bearers, their bearers may then be said to be (indirectly) classified into kinds (by the tropes that are dependent on them). The tropes themselves, however, do not exemplify the property correlated to their kind: Socrates' humanity trope is not itself human, only Socrates is: Socrates is human *in virtue of* his humanity trope. On such a construal, "instantiate" in the main text above has to be understood as "indirectly instantiate" or "have a trope which instantiates" (or, even more explicitly, "being an x such that there is a trope which is ontologically dependent on x and instantiates").

[17]This is why Armstrong (1997: 66–67) argues that kinds are not universals: they are not *strictly* identical in all their exemplifications.

"dog" and sometimes by adjectives used in nominal position as "red" in "Red is my favourite colour". I think they are also plausibly taken to be the referents of abstract nouns like "manhood", "wisdom" and "redness" as they occur in "Wisdom is a virtue" and "the redness of ripe tomatoes reminds me of my childhood". There is a problem here, however: Abstract nouns are not substitutable for general terms *salva congruitate* – from this, Wiggins (1984: 320) concludes that they cannot stand for the same thing, applying what Crispin Wright (1998: 73) has called the 'Reference Principle', namely that "co-referential expressions should be intersubstitutable *salva veritate*, at least in extensional contexts, and intersubstitutable *salva congruitate* in all".

It is certainly true that we can say "Jesus is a man" but not "Jesus is manhood" and that "My favourite colour is red" is unproblematic while "My favourite colour is redness" is awkward. It is true that wisdom is a virtue and that "... is wise is a virtue" is non-sense. But what can we conclude from this? Not much, it seems to me. First, to quote Strawson (1987: 87), we should not "attribute to a purely formal, syntactical matter a categorial or ontological significance it does not have". Second, the non-substitutability *salva congruitate* is a feature also of many other pairs of coreferential expressions. Wiggins, e.g., thinks that the expression "manhood" is "surely [...] synonymous with, or an alternative form of, the nominalization "being a man" " (Wiggins 1984: 320–321), but there seem to me sentences, such as "being a man is being brave" or "being a man is to be brave" where "being a man" cannot be substituted by "manhood". The reference principle also is in peril in all cases of 'appositive expansions', as from "p" to "the proposition that p", from ""Tom" " to "the singular term "Tom" " and from "Alexander" to "Alexander the Great". It is true that p, but "it is true that the proposition that p is ungrammatical; he was called "Tom", but it makes no sense to say that he was called the singular term "Tom", Bucephalus is Alexander's horse but it is the horse *of* Alexander the Great. Does the inapplicability of the s-genitive to definite descriptions have as a consequence that no proper name is co-referential with any definite description? I hope not. That expressions having the same semantic value are not substitutable *salva congruitate* is not confined to singular terms: adverbs (cf. the word-order in "it was unambiguously stated that" and "it was stated without ambiguity that") and predicates exhibit the same phenomenon (cf. "look" and "see" in "look who's talking"). Third, as long as we have a clear enough grasp of what we take to be kinds, we may resort to some artificial device to designate them, e.g. by prefixing "the kind of" to some participal form of a predicate. Whenever I intend to talk of the kind, I will put the relevant expression, most often some general term, in small capitals.

What about singular terms for properties? Properties, if anything, are the semantical values of predicates like "... is wise", "... is a man". In many cases, they clearest way to designate them is by some participal form: "running", "weighing" and "lying between Glasgow and St. Andrews" all designate properties. If the main verb of the predicate we obtain by deleting at least one proper name from a sentence is the copula or if the sentence is sufficiently complex, what we obtain by this method may be ungrammatical. Fortunately, there is another, equally cumbersome, but at least grammatical way of designating properties: the property which is the semantic value of the predicate F is the referent of "what "F" stands for" (Dummett 1981: 213).

Are we therefore relieved from the sad obligation to say, with Frege (1892: 196, fn. 2), that the concept *horse* is not a concept or the property *being a horse* not a property? Not quite, for it is not quite true that "what "... is a horse" stands for" is interchangeable with "... is a horse".[18] There are two problems here: one is that "Bucephalus is a horse" is a complete sentence while "Bucephalus what "... is a horse" stands for" is not. The second problem is that I may owe you a horse, but I do not owe you what "... is a horse" stands for. What "what "... is a horse" stands for" is interchangeable with, as Dummett (1981: 214) remarks, is not "... is a horse" but "a horse", if the latter is construed predicatively, i.e. as involving second-level quantification. To

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[18]The same is true, in cases where the result is grammatical, of what López de Sa (2003: 5) has called "canonical nominalizations", i.e. the introduction, corresponding to some predicate P, of the term "P-ing" to refer to the property (if any) all and only those things have that P. As Lopez de Sa remarks, "P" and "P-ing" are not intersubstitutable *salva congruitate*. While this alone does not show, in my opinion, that "P" and "P-ing" are not coreferential, it shows that the problem of the horse is still with us.

get a complete sentence, we still need the copula: perhaps this was not much of a problem for Frege,[19] but it certainly is a problem for us and for Ramsey. If it were the case that whenever we try to say what a predicate stands for, we unavoidably miss our target and talk about something else, then any attempt to match the metaphysical distinction between universals and particulars with the grammatical difference between singular terms and predicates would be hopeless. Frege was willing to bite this bullet: on his theory only the objects somehow mysteriously correlated to the relevant concepts may be referred to.

Having the distinction between kinds and properties at our disposal, we could say something similar: only the kind corresponding to some property may be referred to.[20] But I think we can do better than that. What the paradox of the horse shows, after all, is not that it is impossible to talk about properties.[21] Frege himself, after all, despite of what he said about the undenotability of the concept *horse*, said a lot of things about concepts, and he did so in a clear and understandable way. In order to whistle what he wanted to say, he used expanded spacing (Frege 1892: 197). I try to do the same using italics. The expression "*being a man*", then, denotes the property which is the semantic value of "... is a man" – though this is not the right way to put it. Rather, we are in the situation Cantor was when he referred to sets using an inconsistent theory. He could not say what he wanted to say but we understand him nevertheless.

I also concede that there is some regimentation involved here. We may say, for example, things like "The property of being red is George's favourite colour" – on the regimentation proposed, a statement of an identity between a property and a kind. Because we also say "George's favourite colour is Red", but do not want to say that the property of being red is identical to Red, we better expand the original sentence into "The property of being red is George's favourite colour *property*", thereby switching from kind to property.[22] But even this switch is imperfect: the canonical nominalisation of the "... is George's favourite colour" is not "George's favourite colour property" but "the property of being of George's favourite colour".

Most importantly for our purposes, singular terms denoting properties and kinds respectively differ in their modal behaviour. Consider the following two sentences:

> Red is George's favourite colour. (3)

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[19]This depends on whether Frege was right in treating the copula as "a mere grammatical device, with no content, which serves the purpose of converting a phrase into a verbal phrase when grammar demands a verb, just as the word 'thing' serves to convert an adjectival phrase into a substantival one, where grammar demands a noun, or the pronoun 'it' supplies a subject when the sense requires none" (Dummett 1981: 214). For some doubts about this construal of the copula, cf. Wiggins (1984) and Wright (1998). Even if, however, this is granted, Frege faces another problem pointed out by Russinoff (1992: 64): even though "man" does not refer to Jesus, and therefore has a referent that is different from Jesus, Frege cannot phrase this as "Jesus is not what "man" refers to", for this is equivalent for him to "Jesus is not a man". So he has to say, as Dummett (1981: 214) does, that "what "man" refers to" stands for the concept *man only if used predicatively*. But then we may ask with Russinoff (1992: 66) how he can legitimately claim to have achieved what he was after, namely an expression that is both a proper name (and hence *not* used predicatively) and captures the 'predicative character' of "... is a man". And we need, after all, proper names for concepts: "What "man" refers to is a concept" is true, but "... is a man is a concept" is nonsensical.

[20]This, I think, is a smaller change than might appear at first sight: Frege (1892: 196) acknowledges uses of the definite article to refer to kinds, as in "the horse is a four-legged animal", which appear to be exceptions to his rules that terms formed with the singular definite article always designate objects. He proposes to understand them as "all non-deviant horses are four-legged animals" (cf. also Wolterstorff 1970: 246), but this is highly problematic, as the discussion about statistical and stereotypical quantifiers has shown .

[21]The paradox of the horse is not, contra Rheinwald (1997: 11), that "the concept *horse* is not a concept" violates the principle that all Fs are F, nor does it lie in the fact that "... is a horse" and "the concept *horse*" are not substituable salva congruitate.

[22]One might protest here and hold that neither "The property of being red is George's favourite colour" nor "Red is George's favourite colour" are identity-statements at all, but rather predications, on a par with "Chastity is a virtue". The problem with this reply is that it seems open to us to *coin* a proper name, using "George's favourite colour" as reference-fixing description.

and

> The property of being red is the property of being of George's favourite colour. (4)

If George's colour preferences are contingent, (3) fails to be necessarily true: if George had different colour preferences, some other colour than red would be his favourite one. The contingency of (3) is readily explained by the fact that the singular description "George's favourite colour" may pick out different colours with respect to different circumstances of evaluation: in a world where George prefers green, it picks out green.[23] In some other possible world than the actual one, the bumblebee and not the honeybee is the insect species typically farmed for honey (Laporte 2000: 298).

(4) requires a different story, for it is not of the form $(\iota x(Fx))a$ but rather of the form $a = b$, expressing an identity among properties.[24] One the other hand, I take it that most of us are inclined to take (4) to be contingent, though perhaps less so than (3). Even those who do not share this intuition, I think, feel the need to draw a distinction between (4) and theoretical identifications like "water is H_2O".

The problem with this is that there is a powerful argument to the effect that (4), and indeed *any* statement of an identity between properties, is necessary, all singular terms designating properties being automatically rigid (Macbeth 1995; Schwartz 2002; Soames 2002). The recipe is as follows: any supposedly non-rigid singular term "P-ing" designating a property may be taken to refer to the disjunctive property of "P'-ing in w or P''-ing in w' or ..." for the different referents of "P" in those different worlds. Instead of saying that "P-ing" non-rigidly refers to whatever Ps in the relevant world, we may then say that it rigidly refers to this disjunctive property. This has become known as the 'trivialisation problem' (Soames 2002: 260).

It is instructive to see why a parallel argument fail for kinds: kinds are not in the same way spread out across possible worlds than properties are. In other possible worlds, actually existing kinds can be extinct and extinct kinds still exist – properties, on the other hand, may *become* empty but do not therefore cease to exist. Kinds may also have different properties in different possible worlds: if history had been different, the state flower of Michigan would not be the Apple-Blossom.[25] So, whatever kinds are, they are things that can be referred to non-rigidly.

For properties, however, it is not clear that this desideratum can be fulfilled. A singular term (definite description, pure indexical, demonstrative or proper name) is *rigid* iff it denotes the same object in every world in which it denotes anything at all, i.e. in all those worlds where this object exists. Properties, however, are different: To exist, for a property, is to be exemplified *in some world or other* and the identity of a property is not determined by what its extension is in that world. The reason, therefore, that we cannot say that predicate is rigid iff it expresses the same property in every world in which it expresses a property at all, is that we lack a criterion when a property "in a world" is the same as one "in another world". This is also why an immediate solution to the trivialisation problem (López de Sa (2003: 10) calls it the 'sparse solution') does

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[23]Some, e.g. Schwartz (1980) and Macbeth (1995), have denied this, holding that every singular term designating a kind designates it rigidly. While I think that this argument has some force as an argument against contingent property identities, I think it is hopeless against kind identities, for reasons I will put forward on p. 4. It seems to me that the discussion about ridigity for general terms generally suffers from the failure to make the distinction between properties and kinds (cf., e.g., the revealing footnotes 3 in Laporte (2000) and 2 in Schwartz (2002)).

[24]This might be disputed. There are examples, e.g. "what is it to be a philosopher? – to be crazy and to be paid for it", "being a man is being a lonesome cowboy", that are more plausibly construed as (bi-)conditionals. I surmise that these are exactly the cases in which a paraphrase in terms of "means" is possible. If this is true, they may safely be excluded as deviant.

[25]It even seems to me, that if evolution had taken a different course, penguins could be fish (would instantiate the kind FISH). This is not to say that some (actual or possible) penguin a might have been a fish – it might still be essentially a penguin and hence a bird. Nor is it to say that the property *being a penguin* might have been compatible with the property *being a fish* (property exclusions might still be necessary). It is just to say that the kind PENGUIN, identified by such and such biological criteria, might have had another place in our classification of animal subkinds into BIRD and FISH.

not work. The idea would be to deny "*P*-ing", if redefined in this way, denotes a property at all. That two possible objects both exemplify it, after all, does not make for genuine similarity between them, and this, after all, is what properties are to account for. While I think that this reply is basically right, it imports too much metaphysics into semantics (Schwartz 2002: 269) and it leaves us with no resources to determine the identity of sparse properties.

Let us consider some other putatively contingent property-identities. According to Jackson et al. (1982), we distinguish the property *being red* from the property *having the colour of ripe tomatoes* on the grounds that in a world in which ripe tomatoes were purple but rubies were red, rubies would have the former property and lack the latter. According to David Lewis (1980), "being in pain" and "being in a state of C-fibre firing" are contingently coreferential, if at all, for some possible individuals may be in other brain-states when they exhibit behaviour that *we* typically exhibit as a result of being in pain. To describe them as exhibiting pain behaviour, however, is for us to describe them as being in pain.

This, I think, also accounts for the contingency of (4): that it allows for one might call a "what it takes" reading: by (4), we say what it takes for an object to be of George's favourite colour (for it to be red) and what it takes to for something to be red (namely, for it to be of George's favourite colour). What it takes to be red, is to exhibit a certain specific colour property we would correctly describe as being red; what it takes to be George's favourite colour, however, is to be of a colour that would preferred by George. It is not required that actually, George prefers it; it is enough if George would prefer it under the relevant circumstances.

How are we to explain this modal difference between "Red" (the colour kind) and "being red" (the colour property)? The reason for the assymetry between (4) and (3), I think, is that we are talking about colours in (3) and about coloured things in (4): the latter but not the former specifies what it takes to have the property in question and talks of what the property bestows on the particulars exemplifying it.[26] In (3) we are predicating something of the kind RED, namely that it uniquely falls under the description "George's favourite colour"; in (4), on the other hand, we are talking about the colour property *being red* and say of it that it is the one George likes best: we say what it is, not by attributing a further higher-order property to it, but by specifying the particulars exemplifying it in a different way, i.e. by a different qualitative feature. If George's colour preferences were different, we would specify a different property – and again we would do this by specifying what it bestows (being liked by George for their colour) on the particulars exemplifying it.

This is also why we feel some hesitation to take (4) to be true in the first place. For how can what it is to be of George's favourite colour be what it is to be red, if something, in a situation in which George's colour preferences were different, might be red without being of George's favourite colour? Is not necessary coextensiveness at least a necessary condition for property identity? To dissolve this worry, one may resort to the two-dimensional apparatus. It is certainly true that, if George's favourite colour would be green, we would not, by the singular term "being of George's favourite colour" pick out the property of being red. But this does not mean that we do not actually do exactly this and that (4) therefore is not actually true.

This is where singular terms for kinds differ most markedly from terms designating properties. If something is such that we would not call it a fish, then it does not instantiate the kind. The kind term comes with some criterion and all and only those things that satisfy the criterion belong to the kind. By talking about properties, however, we are talking about what it takes for some particular to have that property, i.e. we are talking about particulars,[27] about what is *in* them, as it were, that makes them exemplify the property. This is also why, as both Strawson and Dummett remarked,[28] predicates differ from singular terms in that we do not need to grasp some principle of

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[26]This is not to say that (4) is equivalent to "All and only the possible red things are of George's favourite colour". To my ears, the truth of (4) is compatible with George's having several (equally) favourite colours.

[27]Cf.: "...to talk of the concept is to talk of the *idea* or *thought* of the thing, the property, whereas to talk of the property is to talk of the thing itself." (Strawson 1987: 89)

[28]Cf.: "...in the sense of the predicate, and hence in the sense of the associated name for the universal, we

identity for their referents to be competent in using them: the identity of their semantic values is not determined by something over and above what they bestow on the particulars that exemplify them.

Let us now return to Ramsey's argument. We may, by saying of wisdom that it is a characteristic of Socrates, be talking about the kind WISDOM and predicating of it that it classifies Socrates. But it does not classify him thus *simpliciter*: it classifies him in virtue of his qualitative character or some trope or property exemplification essentially dependent on him. Kinds, in this sense, are 'predicable of' but not 'in the subject', according to Aristotle's classification in the *Categories*, and instantiated by things which are also in a subject, but which are not said of a subject (i.e. are not predicable).[29] "Wisdom", the name for the kind WISDOM, is grammatically very different from the predicate "... is wise": only the latter takes negation and adverbial modifiers, only the former adjectives and possessive determinations. Taken in this sense, Ramsey's observation does indeed show that kinds and particulars cannot be distinguished on grammatical grounds alone. This does not, however, show that there is no basis for a distinction between particulars and universals, for the supposed indistinguishability is confined to one side of the saturated/nonsaturated divide.

Frege was driven to acknowledge unsaturated senses by the observation that the concatenation of singular terms does not make a sentence (Frege 1892: 205). Whenever we analyse a sentence like "the number 2 is prime" as the concatenation of "the number 2" and "the concept *prime number*", we need a doubly unsaturated relation to bind them together, "... falls under ···" in Frege's, "... instantiates ···" in my terminology. Because its sense is unsaturated, its referent must be too.[30] Geach (1961: 155–156) proposed to replace Frege's "... is a concept" by "... is a kind of thing" and this indeed gives us good results *as long as* the need for an (unsaturated) instantiation relation is acknowledged.[31] As soon as the kinship between "Socrates" and "wisdom" is recognised and put aside, the original question, namely how to distinguish between "Socrates" and "... is wise" in the sentence "Socrates is wise", may be rephrased as how to distinguish between "Socrates" and "... instantiates the kind WISDOM". The latter, however, does not stand for a kind, but for a property.

5   What universals are essentially

Let us now turn to the version of Ramsey's argument where "... is wise" is converted into a singular term designating a property and not a kind. Does it undermine the distinction between particulars and properties? In this section, I want to argue that it does not, for there is a metaphysical asymmetry in the exemplification relation.

There are, as we noted at the end of the last section, a number of grammatical differences between "... is wise" and "Socrates". Traditionally the most important has been that the first does, while the latter does not take negation. Aristotle famously remarked that substances do not have contraries (*Cat* 5 3b24) and we may hold, with Dummett (1981: 64), that the most fundamental grammatical difference between the proper name "Socrates" and the second-level predicate "... is a property of Socrates" is that the second, but not the first is an x such that there is something

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already have the essence, the individual principle of identity, of the universal thing..." (Strawson 1979: 57) Dummett concludes from the fact that the sense of a predicate consists in the way in which its application to objects is determined and not in how a concept is given to us, that "Frege's attribution of reference to incomplete expressions appears in the end unjustified" (Dummett 1981: 243).

[29]Contra Aristotle, however, it is not true that "whatever can be said of the predicate can also be said of the subject", as an examination of subkind classifications shows: when we say that the Horse is an animal, we are not predicating the kind ANIMAL of the kind HORSE, but rather of the individual horses (Wolterstorff 1970: 248).

[30]This is indeed a general principle of Frege's theory, cf. Frege (1891: 31), Frege (1903: 371–372) and Dummett (1981: 171–179).

[31]Otherwise, "the concept *dragon* is a concept under which no object falls" translates into "dragons are a kind of thing, but no object is that kind of thing" which is objectable not only because it involves an irreducible plural (like "husbands are a sorry lot", cf. Gustason (1972: 129)), but also because the second conjunct should better not say that no object is a kind and hence must be supplemented by an "of" between "is" and "that".

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y such that the following biconditional holds: there is a z such that $S(y, z)$ iff it is not the case that $S(x, z)$.[32] Ramsey, however, need not dispute that singular terms and predicates differ grammatically: his worry concerned our justification, given that there is grammatical evidence to distinguish two classes of expressions, to mark one of them out as 'referential' and the other as 'predicative', i.e. to take one of them to stand for particulars and the other one to stand for universals.[33] The logical pecularities of singular terms for predicative entities stand in need of an explication, and this explication has to appeal to the predicative nature of the items designated.[34]

In this section, I want to provide such an explication by arguing for a metaphysical asymmetry between the property of exemplifying F (which is the property of being F) and the second-level property of being exemplified by a which consists in that the second, but not the first, is always had essentially when it is had at all. We therefore have a straightforward metaphysical difference between the two sentences Ramsey claims to be equivalent: to say of Socrates that he is wise is attributing him a property he has (or had) accidentally, whereas to say of the property of being wise that it characterises Socrates (or, as Dummett would have it, that it is what Socrates is, where both occurrences of "is" occur predicatively), is to characterise what it is for something to be that very property, i.e. to specify it by its essence.

Let us return to (3) and (4). The difference between them, and the associated difference between properties and kinds, is most clearly seen with respect to rigidification: while

> Red is George's actual favourite colour. (5)

is unproblematically necessary, there is a reading under which even

> The property of being red is the property of being of George's actual favourite colour. (6)

fails to be necessarily true: under counterfactual circumstances, it may happen that what it takes for something to be of George's actual favourite colour is for it to be green. The reason for this is that even though "being red" and "being of George's actual favourite colour" are necessarily coextensive, they characterise their exemplifications in different ways and classify them by different qualitative features: to be red is to have a certain surface property or to appear to perceivers in such-and-such a way under such-and-such conditions, while to be of George's actual favourite colour is to have the dispositional property of being actually preferred by George with respect to its colour. This latter dispositional property depends on George's discriminatory abilities in a way *being red* does not.

We have to distinguish this question from the different, though related question whether singular terms contained in the specification of a property have to be read rigidly or not. In evaluating the truth of "this tomato has a colour which is such that George would actually colour-prefer it" with

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[32]In the second case, the y in question is what is expressed by "is not wise"; while in the first case we would need something like "Nonsocrates", introduced by the stipulation that, for every predicate F, "F(Nonsocrates)" is true iff it is not the case that F(Socrates).

[33]This is conceded by Dummett: "...with respect to an analysis of the second type [which analyses sense as what is needed in order to determine the validity of inferences rather than as what is grasped by a competent speaker], it is indeed true that, on Frege's own principles, we must admit not only the analysis of "Socrates is wise" as resulting from putting the proper name "Socrates" in the argument-place of the first-level predicate "ξ is wise", but also the analysis of it as resulting from putting the first-level predicate "ξ is wise" in the argument-place of the second-level predicate "Φ(Socrates)"." (Dummett 1981: 65) This is why he backs up his diagnosis of the "error in Ramsey's argument" (Dummett 1981: 63) by the purely epistemological, and hence irrelevant, observation that we could never understand truth-conditions if sentences were not analysable in the first sense as well (Dummett 1981: 66).

[34]I do not want to deny that the logical pecularities may be of help in characterising the distinction; it is just that they cannot be applied to for drawing the distinction in the first place – this is what Ramsey's challenge teaches us. I agree with (Strawson 1974: 77) that "...general characters of substantial things intrinsically enjoy logical relations with other such characters when considered in relation to any and every substantial thing they might be assigned to; whereas it is not the case that substantial things intrinsically enjoy logical relations with other such things when considered in relation to any and every general character which they might be assigned to. (Rather, they intrinsically don't enjoy such relations.)"

respect to some counterfactual scenario, we have a choice as to whether we want to talk about the actual George's colour preferences or the ones of his counterparts.[35]

But this is not the property we are talking about in (6). "Actual" in (6) does not rigidify "George", but his colour preferences: what it is to be of George's actual favourite colour in some other possible world is to be colour-preferred by some counterpart of George who has the same colour preferences than George actually has. Because these colour-preferences might be different, (6) is contingent. It is perhaps useful to contrast (6) with the "water = H_2O" case. By saying that water is H_2O, and necessarily so, we may again be saying two things. The identity of kinds is unproblematically necessary: whatever satisfies our criterion for being water is H_2O. The problem, then, is that this seems a matter of taxonomy: *given* that we have found out that water is H_2O, we do not call "water" anything else than H_2O. The same holds for "the tiger = the species with X DNA" – we assert it as soon as we decided to classify species by their DNA. The case is clearest with explicit taxonomical assertions as "The honeybee = Apis mellifera". The problem with kind-identities, as Schwartz (2002: 271) has remarked, is that their truth of "is based more on decision than a discovery" – as in the case of proper names in general, it is built into their semantics. Their rigidity is *de jure*, and not *de facto*.

It seems, however, that *de facto* rigidity is needed to grind out the essentialist intuitions (Laporte 2000: 308) Kripke wants to elicit by what he calls "theoretical identities". This is why "water = H_2O" is better construed as an identity of properties. For, if Kripke is right, we do not just want to say that, for the most part, water is composed of H_2O molecules: we want to talk about the hidden essence of the property *being water* and we want to say that this hidden essence is not in any way hypothetical.[36] It is also as an identity of properties that "water = H_2O" is unproblematically a posteriori. As Schwartz (2002: 270) has remarked, it is not altogether clear how identifications of kinds can be so.

What, then, is the difference between "water is H_2O" and "the property of being red is the property of being of George's actual favourite colour"? It lies, I think, in the fact that in the second, but not the first case, we refer to some property by picking it out via a condition. What it is to be of George's actual favourite colour is to exemplify the property, *whatever it is*, that makes something match George's actual colour-preferences. In the case of "water", we do not have a corresponding condition: even if some other substance would fill the actual lakes etc. and would therefore be called "water", it would not therefore *be* water. Property identities, then, are necessary iff they are not criterial, i.e. if the properties in question are characterised by what they bestow on the particulars exemplifying them and not by whatever it is that makes the particulars satisfy the condition imposed.[37]

This proposal has the advantage that singular terms for the properties designated by 'artifical kind predicates' like "...is a knife" and 'nominal kind predicates' like "...is a bachelor" come out non-rigid (as demanded by Schwartz (2002: 266)), for they are naturally understood as criterial.[38] What is a knife and who is a bachelor in some possible scenario depends on what the social institutions in that scenario are like. We cannot conclude from the fact that something becomes – ceases to be or could be but actually is not – a knife or a bachelor that it does not persist over time or across possible worlds.

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[35]This has also been remarked by Sider (1996: 23, n. 8): "In Lewis's framework, "*being Ted*" might denote either the property had only by the world-bound individual Ted, or might denote the property had by all and only Ted's counterparts."

[36]I do not want to take a stand on the question whether hypothetic properties are *ipso facto* extrinsic.

[37]This also explains why a familiar argument against the trivialisation objection does not work. The argument is from analogy: if the re-construction of P-ing as the disjunctive property something has in a world iff it Ps there is allowed, why not the analoguous move consisting in the claim that "the president of the USA", after all, is rigid for it designates in every world the 'office person' (Sidelle 1992) constituted by the US president in that world (cf. Laporte 2000: 301)? The reason for this, I think, is that office persons are 'criterial' in a way ordinary persons are not.

[38]Cf. LaPorte's Lockean explication of what he means by the 'nominal essence' that determines the membership of a nominal kind: "Roughly, a nominal essence consists of properties *speakers* associate with a kind ..." (Laporte 2000: 313, italics mine).

This, however, cannot be the case of all singular terms standing for properties: by pain of an infinite regress, some of them have to be non-criterial, specifying the property not by some condition all and only the particulars exemplify it but by what it bestows on those particulars.[39] It is by these rigidly referring terms that we may characterise how particulars are under different circumstances; we do so by saying in what ways they would be similar to actually existing particulars, holding the respect in which they would be similar fixed.

We may, of course, introduce counterpart relations for properties, e.g. one in which the property of being the biggest pig in w is a counterpart of the property of being the biggest pig in v, and we may say that the first is, but the second is not, exemplified by the oldest pig in my house (in w and v respectively). These singular terms do not designate, however, the property of being the biggest pig. They designate, respectively, *being the biggest pig in w* and *being the biggest pig in v*. When we say that Sam, actually the oldest pig in my house, is the biggest pig but might not have been, we say that Sam and his counterpart in v differ in that Sam has the first property, but his counterpart lacks the latter. In order for this to make sense, however, Sam and his counterpart have to exemplify at least one identical property, namely the property of being the oldest pig in my house. The regress must come to an end somewhere.[40]

We need, therefore, strict identity of properties across possible worlds. And these are those properties that are most aptly called "universals". Whereas we may specify properties by some other condition its exemplifying particulars satisfy, we must, to specify what a universal is, say what the consequences of its exemplification by any given particular would be, be it actual or merely possible. But this means that, given what the property is, it could not have been exemplified by (qualitatively) different particulars. We may, on the other hand, very well specify what a particular is without mentioning all its properties. This is the metaphysical asymmetry between universals and particulars.

Whenever a exemplifies F, two relational properties are exemplified by a and F respectively, namely *having F as a property* and *being a property of a*. The first of these just mimics F in modal behaviour. The latter, however, differs from F in at least one important respect, or so I want to claim: whenever it is had by a property G, it is an essential property of G. How is this possible? Here are some arguments from authority that it better had be possible: Aquinas thought that it is essential to the world to have been created by God but it is not essential to God to have created the world. Kripke thought that it is essential to me to have the parents I have, while it is presumably not essential to my parents to have begotten me. Fine thinks that it is essential to the set $\{a, b\}$ that a is its member while it is not essential to a to be a member of the set. That one and the same relation gives rise to relational properties that differ in whether they are exemplified essentially is precisely one of the reasons to think that the modal account of essence (a is essentially F iff a is F in all worlds in which it exists) only gives a necessary but not a sufficient criterion.

But even if there is room in logical space for the claim that *being a property of a* is exemplified essentially, while *having F as a property* for non-essential Fs is not, why should we believe it? It explains, first, the asymmetry between (3) and (4) as well as between (5) and (6): To say that George's favourite colour might have been green, while George's actual favourite colour might not

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[39]I do not mean by this that properties are uniquely characterised or reducible to their nomological role. Most fundamentally, properties are 'qualitative roles', locating particulars exemplifying them in a quality space, and these roles may or may not be causal.

[40]Heller (1998: 301–302) defines the similarity relation making for counterparthood of properties as similarity between the roles they play in their respective worlds: "To describe a property P's role completely, we say 'it is such that . . . ', where the ellipsis is filled in with the rest o fthe description of the entire world: P is such that it has such-and-such a distribution among other properties $P1$, $P2$, and so on, that have so-and-so distributions. Where a world is a Ramsey sentence [. . .], a property's role in that world would be the open sentence that results from dropping the existential quantifier that binds that property." I just do not see how properties, if roles are defined as open sentences, can have similar roles that are not identical: they either satisfy the sentence, i.e. have the role, or not. If by similarity of role he means similarity in the *patterns* of property distributions (Heller 1998: 303), then he has not done away with cross-world property identity: for to be so-and-so distributed is a property of a distribution and to have similar patterns is in this or that respect to be identical.

have been something else than red, is to say that RED might have failed to have one, but not failed to have the other higher-order property. Whether or not the property *being red* has the property of being exemplified by the things which are of George's actual favourite colour or of George's favourite colour is a question about what it takes to be of such a colour and this may or may not differ from what it takes to be red.

Consider, second, the following analogy: we may specify sets 'extensionally', by their members, or 'intensionally', by some qualitative characteristic shared by their members. Sets, it is said, have their members essentially[41] – may we then say that some actually, but contingently, green thing a essentially is a member of the set of all and only the green things? Well, it depends. If we are talking about the set S, which we, in this world, pick out by $S = \{x \mid x \text{ is green}\}$, the answer is yes; if we are talking about $\{x \mid x \text{ is green}\}$ *tout court*, however, the right answer seems no. Both answers, however, are uncomfortable: in the first case, we have to say that it is possible that the set of all and only the green things contains things which are not green; in the second, we are not talking about one set in particular, but rather using a singular term whose referent varies from world to world.[42]

Matters are even more delicate than this: the modal asymmetry in question cannot be explained just by a difference between (attributively used) singular descriptions and (rigidly referring) 'standard names': we are not, with "$\{x \mid x \text{ is green}\}$", talking about some set, whatever it is in a given possible world. There are no such sets, for sets are necessary existents. What is more, the phenomenon in question seems to persist under rigidification. Suppose there are only three green things, a, b and c. It is then, given the standard logic of the "actually" operator (Davies and Humberstone 1980: 10), necessary that actually, a, b and c are all and only the green things. But is it therefore necessary that a, b and c are all and only the actual green things. Is it not possible that another, actually merely possible, green thing d is actual? It clearly is, and this is manifest in the two-dimensional framework by the fact that it is not fixedly actual that a, b and c are all and only the green things.[43] If different things might be the actual green things, the set of all actual green things might have other members than it actually has, even though, if it is S^*, S^* might not.[44]

What are we to make of this? The explanation is that "the property of being actually green" may designate two different things: it may refer to the property which is had by something iff it is green in the actual world, whatever this is, and it may also be used as a rigid designator for the property which is had by all and only the things x such that actually, x is green. When we ask, of the thing, whether it essentially is a member of the set, we consider counterparts of it and see that they might fail to be green. If, on the other hand, we ask of the set, whether it essentially contains a as a member, we consider the same set in other world: because it is the same set, it cannot fail to have the same properties. The difference, then, lies in the different modal behaviour of the derelativisations of the membership relation: If a is accidentally F, *being a member of the set of all and only the Fs* is an accidental property of a, while *having a as a member* is an essential

[41]Kit Fine (1981: 179) has called this "rigidity of membership": "...it is essential to the identity of a set that it have the members that it does."

[42]A related phenomenon has been argued for by Kit Fine (1977: 141) a long time ago: Think of propositions as sets of possible worlds and consider the set of *all* possible worlds. Viewed as a proposition, Fine says, this set exists necessarily: whatever our possible worlds are, they necessarily form a set (or a proper class for that matter). Viewed as a set, however, its existence depends on the existence of each possible world. If their existence were contingent, then the existence of their set would be contingent too. The universal proposition is what it is quite independently of what possible worlds there are. Sets, however, depend for their existence on their members.

[43]In Davies' and Humberstone's terminology it is deeply but not superficially contingent that they are all and only the green things.

[44]Jubien (1981: 172–173) has denied this: "Although it surely is *not* necessary that Cicero is an orator, it *is* necessary that Cicero is a member of that set whose members happen to be all actual orators." The problem with this is clear: if it is possible that Cicero is not an orator, it is possible that he is not an actual orator (even though it is necessary that, actually, Cicero is an orator). "Actually", in any statement of the form $c \in \{x \mid x \text{ is an actual orator}\}$, may be given wide or narrow scope – under the narrow scope reading, it is as contingent as $c \in \{x \mid x \text{ is an orator}\}$. Under the wide scope reading, however, we are no longer intensionally specifying any set.

property of the set of all and only the Fs.[45]

Our intuitions about sets are rather shaky, however. Consider the set S again. Does not rigidity of membership mean that if S contains a, then a essentially is a member of that set? How could a get out of S, once it has been included in it? And if S, on the other hand, is *defined* to be the set of all and only the Fs (and hence is essentially just that set) and if a is only accidentally F, is it not then likewise accidental to S to contain a? Much seems to depend on 'how we think' of S. How to reconcile such conflicting intuitions? By regimentation: Whenever it seems plausible to us that it is essential to a that it is the member of some set S and merely accidental to S that it contains a, it seems we are thinking of a as being (partly) defined by its membership in S. This is the way we think of natural kinds, and of Platonic forms. It is essential to this particular donkey to be a donkey (to instantiate the kind DONKEY), while it is not essential to the kind that this particular exemplar exists. It is essential to this particular good action to participate in the form of the Good, while the Good stands far above all actions and may exist unexemplified.[46]

Properties, however, are different. They are characterised, as we argued above, by what they bestow on the particulars exemplifying them. They are what they are *because* these, and not others, particulars exemplify them.[47] Aristotelian properties, at least, cannot exist unexemplified (2) and they do not only owe their existence, but their nature as well to the exemplifying particulars: if they were different, the universal would be a different one from the one it actually is. Given how these particulars are, the universal could not have failed to be exemplified by them.

In an analogous way we may say of the set of all and only the green things that, given that some particular a is actually green and hence has been included into the set, it essentially contains a as a member. In the same way, we can say of some property F that it could not have failed to be exemplified by a. For this would mean that a would have to be different – but then we are not ascribing the property *being exemplified by a* but the property *being exemplified by a'* for some counterpart a' of a, which may very well fail to be F. Even if a is not essentially F (if *exemplifying F* is not an essential property of a), then, *being exemplified by a* is an essential property of F. Thus we have a modal asymmetry between two necessarily coexemplified relational properties. This asymmetry explains how things can both share (have in common) some properties with their counterparts, while differing from them in other respects.

It may be replied that this argument, if sound, shows too much. For does it not show that properties F and G cannot be identical if they differ in their properties? But it seems clearly possible that the property of being the most popular property among philosophers is now exemplified by the property of being a bachelor, but will be exemplified by the property of being a vixen in the future. Does this show that properties come into being and cease to exist? Clearly, it does not. But this is because "the most popular property among philosophers" does not designate a universal, identical across possible worlds, but is a non-rigid singular term. The fact that two properties, in different possible worlds, both have the property of being the most popular property among philosophers, does not entail that they are similar – because the second-level property is relational and the philosophers in question may be different ones in the corresponding possible worlds.

Is not, however, "being exemplified by a" relational in the same way? "... exemplifies ...", to be

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[45]This, at least, is Kit Fine's intuition of which he has made a criticism of the standard modal account of essence (Fine 1994: 5): it is essential to {Socrates}, i.e. the set which has Socrates as its only member, to have Socrates as a member, while it is not essential to Socrates to be a member of his singleton.

[46]It is possible to extend this point of view to sets and consider it essential to any possible world w to be a member of the set of all possible worlds, while it is only accidental to the latter to include w. Analogously: it is essential to the maximum of some particular set S to be a member of the set (this is how the maximum is defined), while it is not essential to the set to have a maximum at all (it might only have a supremum, say).

[47]At least if we think of them on the model of Aristotelean properties. With respect to a more Platonic model of properties, Michael Dunn (1990: 16) might well be right (substituting, in accordance with Dunn's intentions, "essential" for "relevant"): "...membership determines relevant properties in only its second position. [...] It is interesting to contrast membership with exemplification, which very plausibly determines relevant properties (though typically not necessary ones) only in its first position, at least given a common Platonic view of properties ("forms")."

sure, is, grammatically at least, a relation. Metaphysically, however, it is not: whenever we say of a property that it is exemplified by a, we do not say that it is exemplified by a in the actual world and may or may not be exemplified by counterparts of a in other possible worlds. To attribute the second-level property of exemplifying a to a universal, we have to decide on whether we mean a-as-it-is-in-the-actual-world or whether we mean a-as-it-would-be-in-some-possible-world, in the same way as we have to decide, when specifying a set as the set of all and only the green things, which one of the actual *and* possible green things we want to include. Take a merely possible particular a in a non-actual possible world w and assume it is F (there). Then *being exemplified by a* is a property of F *already* in our actual world. There is no possible world where F lacks it. So *being exemplified by a* is an essential property of F, as is *having a as a member* for a set S that contains a.

This asymmetric existential dependence explains the metaphysical findings above. First, it builds into the very notion of a universal the possibility of multiple occurrence, for it allows for a definition of universals as things that are part of more than one world. Second, it gives us a conceptual handle on the problem of quiddities. Contra Black (2000: 92), it just does not make any sense to talk of 'taking cross-world identity of properties as primitive': properties are already stretched out across different possible worlds. The quiddity of a property, its individual essence, lies in what qualitative character the property bestows on particulars exemplifying it: it is for this reason that there is a possible world with the same exemplification pattern than ours except that one of the quark colours has been swapped for one of the flavours (Lewis 1986: 162).[48] Third, it explains the exemplification requirement (2). Even if it is impossible that there are bare particulars, this does not follow from what it takes to be a particular. (2), on the other hand, holds only in virtue of what universals are.

The modal distinction between *having F as a property* and *being a property of a* and the distinction between kinds and properties allow us also to reinterpret Ramsey's grammatical findings. We saw that, if "wisdom" in (2) stands for the kind, then Ramsey's argument does not undermine the predicable/non-predicable distinction for kinds are not themselves predicable. If "wisdom", on the other hand, stands for the property *being wise*, (2) indeeds of it that it is a property of Socrates: we are partially specifying what it takes to be wise and saying that being Socrates is sufficient for it. This, however, is not a claim about Socrates, but about another property, that of being Socrates. The specification of what it is to be wise in (2) characterises the property by its exemplifications and hence predicates a property of it that it has essentially, contrary to (1) where we attribute to Socrates a property he has accidentially. In neither of both cases, then, do we have a sentence which "assert[s] the same fact and express[es] the same proposition" as "Socrates is wise".

Let us also return to Ramsey's argument against complex universals: Take any dyadic relational fact, such as R relating a and b. His question – how can it be that all of $(\lambda x(xRb))a$, $(\lambda y(aRy))b$ and $(\lambda x, y(xRy))(a, b)$ are the same proposition, given that they have different components (Ramsey 1925: 14,406) – may now be answered: the three sentences express indeed the same proposition in the sense that they have the same truth-conditions; they differ, however, in being *about* different things, the first one being about a, the second about b and the third about their pair. If the sentences are understood purely classificatory, this difference does not show up: all three of them classify $\langle a, b \rangle$ as being R-interrelated (in this order). Interpreted as property-ascriptions, however, the sentences differ radically: what it takes to R b may be very different from what it takes to be Red by a. If this does not show up in the respective formalisations, all the worse for them.[49]

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[48]This is also why the identity of universals implies at least necessary coextensiveness of the corresponding naming predicates. The mere possibility that a universal could fail to apply to a particular which is, in fact, red, suffices to show that the universal in question is not *being red*.

[49]There is not yet, to my knowledge, a satisfying way of formalising differences in relational properties stemming from the same relation (this is shown, e.g., by recent discussions of so-called "Cambridge changes"). Dunn (1987) has made some promising first steps, but on the whole the attitude of (Church 1958: 1011) still seems justified: "...common sense holds that a man who does not love at one time and does love at a later time has become or changed; but if somebody at one time does not love him and later does love him, he has not therefore necessarily changed. [...] But there is not presently available a sound and adequate logic which maintains this ordinary-

Ramsey tries to make us think symmetrically of particulars and universals. Instead of conceiving properties as ways of grouping individuals, as we normally do, he asks us to consider particulars as ways of grouping properties. If universals depend for what they are on the particulars that exemplify them, we are justified in declining the invitation: for we are then justified in holding that universals have what might be called 'a qualitative character', i.e. are more than just ways of grouping particulars.

6   Meeting the skeptical challenge

Where does this proposal leave us with respect to the exemplification relation? Can we consistently claim that a's exemplifying F and F's being exemplified by a, though made true by the same things and necessarily co-obtaining, radically differ in metaphysical status, the first ascribing a property to a, the latter (partially) specifying what it takes to be F? Luckily we can, for we are not obliged to construe *exemplifying* F and *being exemplified by* a as converses, i.e. as being both derived from the same basic relation by respective de-relativisation. Instead, we would better take exemplification to be an asymmetrical "neutral relation", i.e. as a relation which, though it is asymmetric, does not hold of its arguments in any specifiable order (Fine 2000: 3).

The claim is not, as the remarks about kinds and properties should have made clear, that the grammatical form of the sentence *dictates* a specific reading. We may thus happily agree with Ramsey that "which sentence ["Socrates is wise" or "Wisdom is a characteristic of Socrates"] we use is a matter either of literary style, or of the point of view from which we approach the fact." (Ramsey 1925: 12,404) and add that in both cases we may intend the classificatory or the 'what it takes' reading. Metaphysically important is rather the fact that the two 'points of view' differ, or can made to differ under suitable regimentation.[50] Given that we are able to distinguish two different metaphysical *roles* for singular and predicate terms to play, linking them with grammatical places leaves us with a merely epistemological problem, familiar from other cases.

Albert Casullo (1984: 535) has argued that Russell's argument in *Logic and Knowledge* that spatio-temporal relations cannot individuate at best establishes an epistemological thesis, namely that we cannot *know* that a relation is asymmetrical independently from knowing that the two connected items are non-identical. In order to show that such a relation might still individuate its terms, Casullo draws an instructive parallel to the identification of places and times. We identify objects by the places they occupy at times and these places and times in turn by the objects which occupy them. If object identification is not to be circular, therefore, there has to be some object which can be identified directly, without appealing to its spatio-temporal location. The typical choice is oneself or one's body.

In the same way, and with equal right, it seems to me, I may take it for granted that I am not a universal, thereby solving the epistemological problem *by fiat* after the metaphysical obstacles have been put out of the way.

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language distinction between the subject and the object of a verb."

[50]If we take quantifiable variables as our paradigm singular terms for 'logical subjects', we can even go the Quinean way and claim that "[w]hen we schematize a sentence in the predicative way "Fa," or "a is an F," our recognition of an "a" part and an "F" part turns strictly on our use of variables of quantification; the "a" represents a part of the sentence that stands where a quantifiable variable could stand, and the "F" represents the rest." Quine (1969: 95)

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