

# The Truthmaker Argument for the Existence of Properties

“How things are”, graduate course, spring term 2011  
Philipp Keller, philipp.keller@unige.ch

## The problem of universals

Even if we grant that ways to be are entities – universals, or properties in some other sense – still the predication is true not in virtue of the mere existence of the thing and the property. It’s true because the thing instantiates the property. So says the Ostrich; why isn’t he right? (Lewis 1992: 204)

The “problem of universals” properties are called upon to solve is the problem of explaining unity across diversity:

The problem of universals is the problem of how numerically different particulars can nevertheless be identical in nature, all be of the same ‘type’. (Armstrong 1978a: 41) (cf. also Rodríguez Pereyra 2000: 257)

The basic argument for the existence of properties is that we have to assume their existence if we want to solve the problem of universals. The argument, as I – and, I think, Armstrong<sup>1</sup> – understand it, proceeds as follows:

- (i) It is a Moorean fact that different particulars are ‘identical in nature’.<sup>2</sup>
- (ii) By the truthmaker principle, this ‘identity of nature’ has to be grounded in reality.<sup>3</sup>
- (iii) Properties are what grounds such ‘identity in nature’ (Armstrong 1978a: 41).

But what does ‘identity in nature’ consist in? We have to be extremely careful here, as there are at least three interpretations of such sameness, which give rise to different arguments:

- (i-1) Two different particulars, *a* and *b*, may be both *F*.
- (i-2) Two different particulars, *a* and *b*, may share a property.
- (i-3) Two particulars, *a* and *b*, may exhibit ‘qualitative’, but not ‘numerical’ identity.

I take all these three explications of (i) as somehow preliminary: the fundamental explanandum is the ‘unity’ we observe among the things in the world – “resemblance” is just a name for this pre-theoretical phenomenon:

...resemblance is always *identity of nature*. This identity is partial in partial resemblance, and complete in complete resemblance. (Armstrong 1978a: 95)

The three explications of (i), and the three versions of the argument from the problem of universals they give us, are all somehow defective. The first argument is rightly taken by Ostrich nominalists

<sup>1</sup>Of what Oliver (1996: 46) calls “the argument from the problem of universals”, Armstrong (1978a: xiii) says: “Its premiss is that many different particulars can all have what appears to be the same nature ... The conclusion of the argument is simply that in general this appearance cannot be explained away, but must be accepted. There is such a thing as identity of nature.”

<sup>2</sup>Cf. also Armstrong (1984: 250), Armstrong (1980b: 102). Loux (1998: 21) calls it a “prephilosophical truism” that “things agree in attribute”.

<sup>3</sup>Armstrong did not always emphasise the argument’s dependence on the truthmaker principle as much as he should have. Armstrong (1989a: 39, fn. 1), e.g., says that the argument for properties is an inference to the best explanation of “the facts about resemblance, talk of sameness of sort and kind, the application of one predicate to an indefinite and unforeseen multitude of individuals, etc.” As an inference to the best explanation, however, the argument lacks motivation, as shown by the availability of the ostrich’s position.

as a demand to explain the unexplainable; the second argument is too close to the argument from logical form to be an argument for the robust kind of properties Armstrong wants it to be; only the third one deserves the honorific title “argument from the problem of universals”, even though it is question-begging:

“...if the notion of non-numerical identity turns out to be unanalyzable, then presumably we ought to accept it with natural piety as an irreducible feature of the world. And to accept irreducible non-numerical identity is to accept universals.” (Armstrong 1984: 251)

The third argument has, in my view, a number of important advantages:

1. It comes closest to the intuitive formulations Armstrong gives of the ‘One-over-Many’ argument (Armstrong 1978a: xiii, 11, 138), (Armstrong 1989b: 1–2).
2. It is equivalent to what Rodríguez Pereyra (2002: 45) calls the ‘Many-over-One’ argument: “what makes *a* *F* must be something different from what makes it *G*, if *F* and *G* are different properties”. The ‘Many Over One’ problem is then to provide ontological grounds for the different properties one and the same particular may exemplify.
3. It is effective not only against Ostrich, but also against Resemblance Nominalism, as Rodríguez Pereyra (2002: 21) acknowledges.

I aim to show, contra e.g. Devitt and Sterelny (1987: 228), that the One-over-Many, so conceived, is not a “pseudo-problem” and does not generate “pseudo-explanations”. I concede, however, the point made by Fraser MacBride (2002: 31), namely that the argument begs the question, because the very distinction between qualitative and numerical identity is only understandable by a property realist. But let us first examine in a bit more detail the position it is directed against.

A certain brand of nominalism got its name from a large African bird Pliny the Elder wrongly accused of hiding its head in the sand at the first sight of danger:

Besides the five versions of Nominalism already outlined, we should perhaps include a sixth: Ostrich or Cloak-and-dagger Nominalism. I have in mind those philosophers who refuse to countenance universals but who at the same time see no need for any reductive analyses of the sorts just outlined. There are no universals but the proposition that *a* is *F* is perfectly all right as it is. [...] What such a Nominalist is doing is simply refusing to give any account of the type/token distinction, and, in particular, any account of types. But, like anybody else, such a Nominalist will make continual *use* of the distinction. *Prima facie*, it is incompatible with Nominalism. He therefore owes us an account of the distinction. It is a compulsory question in the examination paper. (Armstrong 1978a: 16–17)

Armstrong’s argument here is far from clear: it is very doubtful, first, that the distinction between types and their tokens matches the particular/universal distinction. *Prima facie* at least, it seems perfectly possible that two tokens are of the same type without there being a property they both exemplify. Third, it is not even clear that the ‘use’ of a distinction commits one to an account that interprets it as marking an ontological division. Most importantly, Armstrong’s description makes the Ostrich nominalist position stronger than it is: “the proposition that *a* is *F* is perfectly all right as it is” is true – even on Armstrong’s view!

It is therefore not surprising that philosophers disagreed on what examination questions were compulsory: So-called ‘Ostrich nominalists’ like Quine (1953 1980), Haack (cf. also 1978: 43 et seq.), Devitt (1980), Aune (1984), van Cleve (1994) and Melia (2005) continued their resistance, despite vigorous attempts to convince them otherwise (Armstrong 1980a; Rodríguez Pereyra 2000). Different lines of criticism have to be distinguished:

1. Some critics, like Davidson (1969: 49), argue that Armstrong has mislocated the problem and that a Tarskian theory of truth answers all questions that may reasonably be asked about these matters;
2. Some critics, like (Quine 1953; Devitt 1980; Quine 1980; Melia 2005), deny the alleged need for an ‘ontological’ analysis of predication;
3. Some others take Armstrong to demand that we “do away with unanalysed predication” and either think that he himself failed to do so (Aune 1984) or that the attempt is futile anyway (Lewis 1983).
4. Still others have taken Armstrong to claim that “intrinsic predication requires a further relation” (van Cleve 1994: 582) and that there is a relation of exemplification (van Cleve 1994: 583) and have dismissed both these claims as unreasonable.

Let me take these different criticisms in turn.

## The truthmaker argument for properties

Fortunately for the realist, there is another argument for the existence of properties, of a distinctively ontological sort. While there is some unclarity about the exact form of this *truthmaker* argument, it allows for a pretty straightforward formulation. We start from the observation of Moorean facts of ‘sameness of types’ or objective resemblance and invoke the general principle that such truths about how things are must be ‘ontologically grounded’, i.e. rooted in facts about what things there are. While it is true that some realists put this question misleadingly in terms of the grounding of our applying general terms<sup>4</sup> or predicates,<sup>5</sup> more careful advocates have from the beginning put the question in terms of ontological explanation. Armstrong (1980b: 443) argued against Ostrich nominalists that they give the predicate “what has been said to be the privilege of the harlot: power without responsibility. The predicate is informative, it makes a vital contribution to telling us what is the case, the world is different if it is different, yet ontologically it is supposed not to commit us.” and others have joined him in this accusation:

Recognizing that there are properties in an unproblematic sense, we must take the relevant ontological question to involve a request about the nature or status of properties. By doing what [the Ostrich nominalists do], they bypass the problem of universals by a sort of semantical detour. Once such a problem is raised, rather than avoided, we can obviously not be content with the claim that “ $W_1(a)$ ” holds because  $a$  is white or with the assertion that “ $W_1(a)$ ” corresponds to or plays the same role as “white” as solutions to the problem of universals. (Hochberg 1979: 335)

The craving to satisfy Truthmaker thus urges us towards a recognition of the existence of universals. Universals are the sorts of things whose existence is required to plug the gap between individual things and accidental truths about those things. (Bigelow 1988: 133)

If the truthmaker question forces us to “do[...] ontological justice to the predicate” (Armstrong 2002: 33) and if “continually to raise the truthmaker question about properties makes for ontological hon-

<sup>4</sup>Cf.: “In virtue of what do these general terms apply to the things which they apply to?” (Armstrong 1978a: 12); “Accepting the truth-maker principle will lead one to reject Quine’s view (1961) that *predicates* do not have to be taken seriously in considering the ontological implications of statements one takes to be true. Consider the difference between asserting that a certain surface is red and asserting that it is green. An upholder of the truth-maker principle will think that there has to be an ontological ground, a difference in the world, to account for the difference between the predicate ‘red’ applying to the surface and the predicate ‘green’ so applying.” (Armstrong 1989b: 89)

<sup>5</sup>“Take two white things again. They deserve a common description, namely, ‘white’. What is the link between them which underlies this linguistic fact?” (Campbell 1976: 206). Cf. also Campbell (1981: 483) and Rodríguez Pereyra (2002: 18).

esty” (Armstrong 2004: 43), then this is because it enables us to give an ontological *explanation* of objective resemblance. Oliver (1996: 75) finds this idea of ‘metaphysical explanation’ “elusive” and tries to reconceptualise it as either a type of conceptual analysis, a specification of the ontological commitment or of the truthmakers of certain sentences.

It is not just analysis, however, that motivates realism, but analysis conceived of as quest for truthmakers, i.e. analysis of a distinctively *ontological* kind.<sup>6</sup> This genuinely ontological focus, however, was present already in Armstrong’s earlier work: his arguments *against* the existence of disjunctive (Armstrong 1978b: 21) or negative properties (Armstrong 1978b: 27) explicitly relied on the fact that they are not needed as *truthmakers* for disjunctive and negative truths respectively.

Consider the following two inferences:

- (1) 
$$\frac{Fa \quad Ga}{(F \wedge G)a(\exists x(Fx \wedge Gx) \wedge x = a)}$$
- (2) 
$$\frac{Fa \quad Fb}{F(a \wedge b)(\exists \phi(\phi a \wedge \phi b) \wedge \phi = F)}$$

While (1) is clearly universally valid, we feel some hesitation to grant (2) for any  $F$ : it does not follow from the facts that some elephant, Susi, is small and that some mouse, Tom, is small that there is one property Susi and Tom both have. In some cases, however, the inference is legitimate – in these cases, there has to be an explanation for this and the explanation of the validity of valid identity inferences, is that the preservation of truth is underwritten by the identity and hence the existence of some entity. There must be something *in virtue of which* the two particulars  $a$  and  $b$  resemble each other.

## 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). Let us 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<sup>7</sup> and particulars of a physical or psychological 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

- (3) Socrates is wise.

and

- (4) Wisdom is a characteristic of Socrates.

<sup>6</sup>Lewis (1983: 20) and Lewis (1992: 203) have emphasised this in particular.

<sup>7</sup>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 suitably adapted to apply to fusions or sets of tropes.

“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 (3) thus does not seem to cut any ice. Two lines of criticism immediately suggest themselves: First, (3) and (4) incur different ontological commitments and therefore cannot be synonymous (Simons (1991b: 152), Mulligan (2000: 12)); second, “Socrates”, the subject term of (3), is not the predicate in (4) (Simons (1991b: 152), Mulligan (1998: 12)). (3) and (4) 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, at this stage, already any particular logical form attaching 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 might want 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 – but what, he asks, makes us prefer one precisification over the other and what makes us see our choice as marking out an *ontological* distinction if, as Ramsey contends, they do in fact “assert the same fact and express the same proposition”.<sup>8</sup>

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 to accept complex and relational universals, i.e. universals which occur in propositions the categorical structure of which they not uniquely determine.<sup>9</sup> If there were such a ground, Ramsey (1925: 14,406) asks, how could it then be the case that  $(\lambda x(aRx))b$ ,  $(\lambda y(yRb))a$  and  $(\lambda x, y(xRy))(a, b)$  represent (are logical forms of) the same proposition, given that they have different components?

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,<sup>10</sup> 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,<sup>11</sup> 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:

<sup>8</sup>If we choose the first, 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.

<sup>9</sup>Ramsey includes under this heading both relational and impure universals, the latter arising from logically complex propositions.

<sup>10</sup>Equipollence (“Äquipollenz”), defined in this way, is only one of the identity conditions Frege gives for 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 (Frege 1976: 105).

<sup>11</sup>This thesis may be found in “Über Begriff und Gegenstand” (Frege 1892: 173), in a letter to Marty (29.7.1882) (Frege 1976: 164) and repeatedly in the posthumous writings (Frege 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).

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 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 “ $f(\text{wise})$ ” (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 “ $f(\text{Socrates})$ ”. 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.<sup>12</sup> Again, we have a symmetrical picture: any semantics committing us to particulars may uniformly be translated into another semantics committing us to universals.

**Metaphysics to the rescue?** Has Ramsey neglected metaphysical resources to draw the distinction?

A difference with respect to exemplification relation (MacBride: 2005)?

- i numerical pattern of instantiation
  - i *But*: multigrade universals
- ii particulars always enter into the first position
  - i *But*: higher-order universals
- iii properties are unsaturated
  - i *But*: this is just a metaphor

A difference between kinds of entities?

- i particulars cannot at two places at the same time
  - i *But*: might be true of some universals as well
- ii identity of indiscernibles is definitionally true of universals
  - i *But*: they might have quiddities
- iii universals need to be exemplified
  - i *But*: bare particulars might be possible

<sup>12</sup>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.

Ramsey’s argument 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 with respect to the ontological status of its two components from  $S(a, b)$  without presupposing a prior distinction between particulars and universals.<sup>13</sup> 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”(4), stands for a *kind* rather than a property: it takes adjectives (“ironic wisdom”), nominal modifiers (“Socrates’ 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 and between the species and one of its exemplars.<sup>14</sup>

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>Properties</i>	<i>Kinds</i>
are exemplified	are instantiated
how a thing is	what a thing is
qualitative	classificatory
may be lowest-level	typically high-level
perfect similarity	approximate similarity

*Why they are intimately related:* (i) to instantiate the kind MAN, something has to be human (to some degree); (ii) if something is human (to a sufficient degree), then it instantiates the kind MAN (if it exists).

*Why they are not identical:* (i) the Dog is four-legged, the property is not; (ii) the Apple-Blossom is the state flower of Michigan, the property is not; (iii) the Dino is extinct, but the property is not.

### **A modal asymmetry**

(5) Red is George’s favourite colour.

(6) The property of being red is the property of being of George’s favourite colour.

are both contingent, while only (7), but not (8)

(7) Red is George’s actual favourite colour.

(8) The property of being red is the property of being of George’s actual favourite colour.

is necessary: while nothing other than the kind RED could be the colour that George actually prefers, the property (of) *being red* could have other roles than it actually has.

In (7), “red” would also have to be rigidified (something like “the property of being actually red”).

<sup>13</sup>In his original example, “Socrates” was mapped on “...is a property of Socrates” and “...is wise” on “wisdom”.

<sup>14</sup>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).

*A worry:* A variant of the green/grue problem: One might argue that *any* statement of an identity between properties is necessary: 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 supposedly different referents of “*P*” in those different worlds. Instead of saying that “*P*-ing” non-rigidly refers to whatever *P*s in the relevant world, we may then say that it rigidly refers to this disjunctive property.

Cf. “sky-coloured” - why is this not a property term? It is a priori that it is necessary that everything that's sky-coloured is coloured and we have to use color vocabulary to give its full analysis.

*Answer:* Compare: “The president of the USA” is rigid for it designates in every world the ‘office person’ (Sidelle 1992), constituted by the US president in that world. In the same way as Bushy is not the president of the USA, *P*' is not *P*. Office persons (and kinds) are ‘criterial’ in a way ordinary persons (and properties) are not: what it is to be Bushy is not what it is to be a particular person.

(The generalization problem is different: Soames (2002), Macbeth (1995) and Schwartz (2002). All properties have a (canonical) nominalization that is always rigid; rigidity for predicates (or general terms) defined as rigidity of some nominalization of it; hence all general terms are rigid (attacked by Dan who says that not all canonical nominalizations are rigid)

*A diagnosis:*

- i When we say that the property of being *F* is the property of being *G*, we are talking about *what it takes* for something to exemplify *F* (and *G*).
- ii Kinds do not in this way specify the qualitative character of things: they are instantiated by things *in virtue of* their properties.
- iii Even if the difference between kinds and particulars were ungrounded, not much would be lost.

This is why predicates differ from singular terms in that we do not need to grasp some principle of 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:

“...in the sense of the predicate, and hence in the sense of the associated name for the universal, we already have the essence, the individual principle of identity, of the universal thing...” (Strawson 1979: 57)

## What universals essentially are

**Idea:** properties have their exemplifications essentially, while kinds have their instances accidentally. Kinds *have* roles, while properties *are* roles.

**Aims:** to spell this out without presupposing that essences may be contingent; to make it plausible, both within and without a modal realist framework; to sketch some consequences.

**A first stab using generic essence:** It is true in virtue of what the property of being a man is that every man exemplifies it. It is true in virtue of what *F* is that is exemplified by all and only the *F*s. If *y* = to be *F*, then we have

**(NP)**  $\Box_F \forall x (x \text{ has } y \leftrightarrow x \text{ is } F)$

but we do not (necessarily) have

**(TP)**  $\Box_{\{x: Fx\}} \forall x (x \text{ has } y \leftrightarrow x \text{ is } F),$

which I here understand distributively, as implying, for every *z* that is *F*, that  $\Box_z (a \text{ has } y \leftrightarrow x \text{ is } F)$



*F*). Here we have a notion of *generic* essence which, some have argued (Fabrice Correia, “Generic Essence, Objectual Essence, and Modality”, *Noûs*, forthcoming), is not reducible to objectual essence. Contrary to Fabrice, I distinguish this notion of generic essence from what is involved in locutions such as “all men, as such, are essentially mortal” (these I understand as non-distributive collective essences), and I do not think it is independent of the notion of objectual essence: rather than there being two notions of essence, the differences between the generic and the objectual come from the different kinds of entities involved.

**Thesis:** In a formulation that presupposes either a ‘counterparthood is not identity’ solution to the problem of accidental intrinsics or contingent essence: If *a* exemplifies *F*, *a* exemplifies the property (of) *having F as a property* and *F* exemplifies the property (of) *being a property of a*. While the first is essential to *a* iff *F* is, the latter is always essential to *F*.

**A worry:** Is this possible? It better had be: (i) Aquinas; it is essential to the world to have been created by God, but it is not essential to God to have created the world. (ii) Kripke: it is essential to me to have the parents I have, but it is not essential to my parents to have begotten me. (iii) Fine: it is essential to the set  $\{a, b\}$  that *a* is a member of it, but it is not essential to *a* to be a member of the set.

**In terms of possible worlds:** The counterpart relation for properties is strict numerical identity. (Heller 1998 defines counterpart relations for properties in terms of similarities of their roles, but has to take these similarities as primitive. But similarities between the roles of properties does not make for similarity of properties. The fact that two properties are the philosophers’ favourite property in their respective world does not make them similar, for the philosophers in question may be different.)

More generally: we cannot have primitive transworld-identity between particulars because they may differ in accidental intrinsics: the same particular cannot be straight and bent. This presupposes primitive transworld-identity for properties: it is the *same* property that cannot be had by one and lacked by the other. And: properties do not have accidental intrinsics. A modal-realist argument for primitive transworld-identity of properties:

- i (Some) properties make for similarity across possibilities (in different worlds).
- ii If some possibilities are similar, they (literally) share a property.
- iii So (some) properties are strictly identical across possible worlds.
- iv So they cannot differ in properties which are not implicitly relational.
- v The property of being exemplified by *a* is not implicitly relational.
- vi So if it is had in some world by some of these properties, it is had in all in which it exists.

**Fregean thoughts:** It’s not a change in the thought that I’m thinking it now and then I am not. This can be read omnitemporally or atemporally: omnitemporally, the thought stays at it is; it is unaffected by my thinking or not-thinking it; atemporally: the thought is not the kind of thing that takes temporal qualifications.

**Haecceities and quiddities:** Haecceities are what distinguish indiscernibles in different worlds. If counterparthood is a matter of similarity and perfect similarity across worlds is possible, haecceities are needed to falsify the identity of indiscernibles.

The quiddity of a property would be its individual essence, as opposed to its role, something over and above what it bestows on the particulars exemplifying it. Quiddities are needed to make sense of scenarios of role swap, e.g. the possibility of a 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). But quiddities do not exist: it does not make sense to say that the colour *being red* could fail to be exemplified by something that is (actually) red or could be exemplified by something that (actually) has a different colour.

**Two readings of “*F* is (identical to) *G*”:** as an identity-claim about kinds, it is either necessary or

contingent:

(9) Red is George's favourite colour.

But there is also what I call a 'what it takes' reading: If what it takes to be red is what it takes for that thing to be of George's favourite colour, we have

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

These, I submit, are always necessary. The identity conditions of properties are exhausted by a specification of what it takes to have them – they are nothing but their roles.

**Cash-value:**

1. As Lewis himself noticed, property swapping leads to 'Ramseyan humility' (Lewis 2006) and (a sort of) Kantianism.
2. We solve Ramsey's problem.
3. We handle indiscernibles better.

## References

- Armstrong, David M., 1978a. *Nominalism & Realism: Universals and Scientific Realism, Volume I*. Cambridge: Cambridge University Press
- Armstrong, David M., 1978b. *A Theory of Universals: Universals and Scientific Realism, Volume II*. Cambridge: Cambridge University Press
- Armstrong, David M., 1980a. "Against 'Ostrich' Nominalism: A Reply to Michael Devitt". *Pacific Philosophical Quarterly* 61: 440–449. Reprinted in Mellor and Oliver (1997: 101–111)
- Armstrong, David M., editor, 1980b. *The Nature of Mind, and other Essays*. St. Lucia, Queensland: University of Queensland Press
- Armstrong, David M., 1984. "Reply to Aune (1984)". In Bogdan (1984), pp. 250–256
- Armstrong, David M., 1989a. *A Combinatorial Theory of Possibility*. Cambridge: Cambridge University Press
- Armstrong, David M., 1989b. *Universals: An Opiniated Introduction*. Boulder, Colorado: Westview Press
- Armstrong, David M., 2002. "Truth and Truthmakers". In Schantz, Richard, editor, *What Is Truth?*, pp. 27–37. Berlin: Walter de Gruyter
- Armstrong, David M., 2004. *Truth and Truthmakers*. Cambridge Studies in Philosophy. Cambridge: Cambridge University Press
- Aune, Bruce, 1984. "Armstrong on Universals and Particulars". In Bogdan (1984), pp. 161–169
- Bigelow, John C., 1988. *The Reality of Numbers: A Physicalist's Philosophy of Mathematics*. Oxford: Clarendon Press
- Bogdan, Radu J., editor, 1984. *D. M. Armstrong*. Number 4 in Profile. Dordrecht: D. Reidel Publishing Co.
- Campbell, Keith, 1976. *Metaphysics. An Introduction*. Encino and Belmont, California: Dickenson Publishing Co.
- Campbell, Keith, 1981. "The Metaphysic of Abstract Particulars". In French, Peter A., Uehling, Theodore E., Jr., and Wettstein, Howard K., editors, *Midwest Studies in Philosophy 6: Foundations of Analytic Philosophy*, pp. 477–486. Minneapolis, Minnesota: University of Minnesota Press
- van Cleve, James, 1994. "Predication Without Universals? A Fling with Ostrich Nominalism". *Philosophy and Phenomenological Research* 54: 577–590
- Davidson, Donald, 1969. "True to the Facts". *The Journal of Philosophy* 66: 748–764. Reprinted in Davidson (1984)
- Davidson, Donald, 1984. *Inquiries into Truth and Interpretation*. Oxford: Clarendon Press

- Devitt, Michael, 1980. "‘Ostrich Nominalism’ or ‘Mirage Realism’". *Pacific Philosophical Quarterly* 61: 433–439. Reprinted in Mellor and Oliver (1997: 93–100)
- Devitt, Michael and Sterelny, Kim, 1987. *Language And Reality: An Introduction to the Philosophy of Language*. Oxford: Basil Blackwell Publishers. Republication: Devitt and Sterelny (1999)
- Devitt, Michael and Sterelny, Kim, 1999. *Language and Reality: An Introduction to the Philosophy of Language*. Cambridge, Massachusetts: The MIT Press, 2 edition
- Frege, Gottlob, 1892. "Über Begriff und Gegenstand". *Vierteljahreszeitschrift für wissenschaftliche Philosophie* 16: 192–205. Reprinted in Frege (1980: 96–127)
- Frege, Gottlob, 1906. "Kurze Übersicht meiner logischen Lehren". In Frege (1969), pp. 213–218. Edited by Hermes, Hans and Kambartel, Friedrich and Kaulbach, Friedrich; 2<sup>nd</sup> edition: Frege (1983)
- Frege, Gottlob, 1914. "Logik in der Mathematik". In Frege (1969), pp. 219–270. Translated as "Logic in Mathematics" in Frege (1979: 203–250)
- Frege, Gottlob, 1969. *Nachgelassene Schriften*. Hamburg: Felix Meiner Verlag. Edited by Hermes, Hans and Kambartel, Friedrich and Kaulbach, Friedrich; 2<sup>nd</sup> edition: Frege (1983)
- Frege, Gottlob, 1976. *Wissenschaftlicher Briefwechsel*. Hamburg: Felix Meiner Verlag. Edited by Gabriel, Gottfried and Hermes, Hans and Kambartel, Friedrich and Thiel, Christian and Veraart, Albert
- Frege, Gottlob, 1979. *Posthumous Writings*. Oxford: Basil Blackwell Publishers. Edited by Hermes, Hans and Kambartel, Friedrich and Kaulbach, Friedrich; translation of (Frege 1969) by Peter Long and Roger Whit
- Frege, Gottlob, 1980. *Funktion, Begriff, Bedeutung*. Göttingen: Vandenhoeck & Ruprecht. Edited by Patzig, Günther
- Frege, Gottlob, 1983. *Nachgelassene Schriften*. Hamburg: Felix Meiner Verlag, 2 edition. Edited by Hermes, Hans and Kambartel, Friedrich and Kaulbach, Friedrich
- Goodman, Nelson, 1978. "Predicates without Properties". In French, Peter A., Uehling, Theodore E., Jr., and Wettstein, Howard K., editors, *Midwest Studies in Philosophy 3: Studies in Ethical Theory*, pp. 347–348. Minneapolis, Minnesota: University of Minnesota Press
- Haack, Susan, 1978. *Philosophy of Logics*. Cambridge: Cambridge University Press
- Hochberg, Herbert, 1979. "Relations, Properties, Classes and the Problem of Individuation". *The Southern Journal of Philosophy* 17: ??
- Lewis, David K., 1983. "New Work for a Theory of Universals". *Australasian Journal of Philosophy* 61: 343–377. Reprinted in Lewis (1999: 8–55)
- Lewis, David K., 1992. "Armstrong on Combinatorial Possibility [critical notice of Armstrong (1989a)]". *Australasian Journal of Philosophy* 70: 211–224. Reprinted as "Armstrong on Combinatorial Possibility" in Lewis (1999: 196–214)
- Lewis, David K., 1999. *Papers in Metaphysics and Epistemology*. Cambridge: Cambridge University Press
- Loux, Michael J., 1998. *Metaphysics: a contemporary introduction*. London: Routledge
- MacBride, Fraser, 2002. "The Problem of Universals and the Limits of Truth-Making". *Philosophical Papers* 31: 27–37
- McGinn, Colin, 2000. *Logical Properties*. Oxford: Clarendon Press
- Melia, Joseph, 2005. "Truthmaking without Truthmakers". In Beebe, Helen and Dodd, Julian, editors, *Truthmakers*, pp. 67–84. Oxford: Oxford University Press
- Mellor, David Hugh and Oliver, Alex, editors, 1997. *Properties*. Oxford: Oxford University Press
- Mulligan, Kevin, 1998. "Relations – Through Thick and Thin". *Erkenntnis* 48: 325–353
- Mulligan, Kevin, 2000. "Métaphysique et Ontologie". In Engel, Pascal, editor, *Précis de philosophie analytique*, pp. 5–33. Paris: Presses Universitaires de France
- Oliver, Alex, 1996. "The Metaphysics of Properties". *Mind* 105: 1–80
- Quine, Willard van Orman, 1953. "Logic and the Reification of Universals". In *From a Logical Point of View: 9 Logico-Philosophical Essays*, pp. 102–129. Cambridge, Massachusetts: Harvard University Press

- Quine, Willard van Orman, 1980. "Soft Impeachment Disowned". *Pacific Philosophical Quarterly* 61: 450-451
- Ramsey, Frank Plumpton, 1925. "Universals". *Mind* 34: 338-384. Reprinted in Ramsey (1931: 112-137); cited after reprint in Ramsey (1990)
- Ramsey, Frank Plumpton, 1931. *The Foundations of Mathematics: Collected Papers of Frank P. Ramsey*. London: Routledge and Kegan Paul, Ltd. Edited by Braithwaite, R.B.
- Ramsey, Frank Plumpton, 1990. *Philosophical Papers*. Cambridge: Cambridge University Press. Edited D.H. Mellor
- Rodríguez Pereyra, Gonzalo, 2000. "What is the Problem of Universals?" *Mind* 109: 255-273
- Rodríguez Pereyra, Gonzalo, 2002. *Resemblance Nominalism: A Solution to the Problem of Universals*. Oxford: Oxford University Press
- Simons, Peter M., 1991a. "Faces, Boundaries and Thin Layers". In Martinich, A.P. and White, M., editors, *Certainty and Surface in Epistemology and Philosophical Method. Essays in Honor of Avrum Stroll*, p. ?? Lewiston, New York: Edwin Mellen Press
- Simons, Peter M., 1991b. "Ramsey, Particulars and Universals". *Theoria* 57: 150-161
- Wolterstorff, Nicholas, 1970. *On Universals: An Essay in Ontology*. Chicago, Illinois: University of Chicago Press