Problèmes de Métaphysique I et II

Séminaire MA3 2007-8

Détermination Essentielle, 17 octobre 2007

Philipp Keller

Properties and Kinds

Properties have to be sharply distinguished from kinds. Kinds classify things by ⌜*what*⌝ they are, while properties characterise *how* they are. In this section, we have to enquire further into the nature of kinds, distinguish them from properties and discuss their relations to tokens and tropes.

Many different types of sentences of natural language require kinds as semantic values. Some examples include "Dogs are four-legged", "Red is a colour", "the Tiger moved from Africa to Asia" and "the Apple-Blossom is the state flower of Michigan". None of these is true of properties. Another type of irreducible reference to kinds is with predicates measuring the distribution of instances, such as "rare" and "extinct" in sentences like "Gold / This kind of material is rare" (cf. Moltmann 2003: 459). These show also that reference to kinds cannot be paraphrased away as plural reference to instances of kinds.

Kinds are related to properties, however: to say of John that he is of the kind MAN is to say that he is a man, i.e. exemplifies the property *being a man*. Kinds and properties differ markedly in higher semantic types. To see this, note that it is a different thing to say of something that it is a colour than to say of something (different) that it is red. In the first case, we say ⌜*what*⌝ the thing in question is, namely a colour. In the second, we specify *how* the thing is, without necessarily attributing a type.

We may say that *being a colour* is a second-degree property, a property of properties, while *being red* is a first-degree property, a property of particulars. The thesis under consideration claims that second-degree *properties* do not exist, though there are kinds of second and any higher degree. *Being coloured* is a first-degree property, though one had in virtue of the kind of some properties had by particulars exemplifying it. Using a useful distinction from Bigelow (1993: 94), we will say that it is a second-order property of its exemplifications. The thesis to be defended claims that kinds may be of different semantic types and hence of different degrees while properties are always of first degree (but may be of higher orders, if they derive from kinds of higher types).

There are no second-degree *properties*, though there are kinds of second and any higher degree. *Being coloured* is a first-degree property, though one had in virtue of the kind instantiated by some properties had by particulars exemplifying it. We will say that it is a second-order property of its exemplifications. Second-order properties, of course, do exist, but they are not basic: they are exemplified in virtue of other properties, and the condition they impose on their exemplifying particulars is derived from the kinds these other properties instantiate. Second-order properties are not basic because they do not bestow anything on their particulars, over and above what is bestowed on them by the first-order properties they exemplify. The thesis I am going to defend, then, is that kinds may be of different semantic types and hence of different degrees while properties are always of first degree (but may be of higher orders, if they derive from kinds of higher types).

Essentiel determination of properties by properties

Determinables and determinates are kinds (and their associated properties) that stand in some type of determination relation. The determinable COLOUR, for example, is determined by the determinate RED, which in turn is determined by the (lower) determinate LIGHT RED, which is just to say that "light red" is a precisification of "red".[1] The co-exemplification of determinables makes for less resemblance than the co-exemplification of any particular of their determinates,[2] and they qualify their exemplifications less determinately.

While we may stay relatively uncommitted with respect to the analysis of the nature of determinables,[3] one of their characteristics will be of particular importance. The determinate/determinable structure exhibits what we may call, somewhat tendentiously, "penumbral connections": each determinate, e.g., falls immediately under exactly one determinable (Johnson 1921: xxxv) (and non-immediately under many more), and no two determinates of the same determinable can be exemplified by the same thing at the same time (Johnson 1921: 181). Determinates of different determinables may be linked, however. In this case, we distinguish different 'dimensions' in which determinables may be determined. Colors vary according to hue, saturation and brightness, and these variations are independent of one another. If hue, saturation, and brightness are determinables, they are not separate, since they depend on each other. There cannot be saturation without hue, for example, even though no determination of saturation requires any particular determination of hue. Johnson says that the determinable color is "single, though complex, in the sense that the several constituent characters upon whose variations its variability depends are inseparable" (Johnson 1921: 183).

Essentiel determination of properties by things

A deeper explanation of the modal asymmetry (if there is one): properties have their exemplifications essentially, while kinds have their instances accidentially. Kinds *have* roles, while properties *are* roles.

A first stab: if $y =$ the be F, then we have

$$\Box_F \forall x(x \text{ has } y \leftrightarrow xisF)$$

but we do not (necessarily) have

$$\Box_x \forall x(x \text{ has } y \leftrightarrow xisF)$$

where the latter x is understood as the set of things that are F, implying, for every z that is F $\Box_z(ahasy)$

Schnieder: 'Socrates has wisdom' is more complex than 'Socrates is wise' because wisdom is essentially such that it is had by all and only the wise things.

In a formulation that presupposes a non-identity solution to the problem of accidential intrinsics (contingent identity) or contingent essence:

If a exemplifies F, a exemplifies the property (of) *having* F *as a property* and F exemplifies the property

[1] Whether or not we want to call "red" a precisification of "coloured" is another matter, but of not much more than terminological interest.

[2] Cf.: "A determinable is a natural kind with a more relaxed resemblance standard than the determinates falling under it." (Campbell 1990: 83)

[3] In most of the current literature, they are identified with disjunctions of their determinates (cf. e.g. Rodríguez-Pereyra 2002: 49), but this has obvious problems pointed out e.g. by Prior (1949) (cf. also Sanford 2002).

(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. 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.

It's not a change in the thought that I'm thinking it and you aren't.

Two readings: omnitemporal or atemporal

A formulation in possible-world talk: The counterpart relations 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 accidential intrinsics: the same particular cannot be straight and bent. This presupposes, however, 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 accidential intrinsics.

A modal-realist argument for primitive transworld-identity of properties:

i (Some) properties make for similarity across possibilia (in different worlds).
ii If some possibilia 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.

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: as Lewis himself noticed, property swapping leads to 'Ramseyan humility' (Lewis 2006) and Kantianism.

Ramsey's 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 given an ontological answer: 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. "Wisdom-characterises(Socrates)" is about Socrates, but not about wisdom, while "characterises-Socrates(Wisdom)" is about wisdom, but not Socrates, while "characterises(Socrates,wisdom)" is about both. 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, so much the worse for them.

References

Bigelow, John C., 1993. "Sets are Haecceities". In Bacon, John, Campbell, Keith, and Reinhardt, Loyd R., editors, *Ontology, Causality and Mind – Essays in Honour of D.M. Armstrong*, pp. 73–95. Cambridge: Cambridge University Press 1

Campbell, Keith, 1990. *Abstract Particulars*. Oxford: Basil Blackwell Publishers 2

Johnson, W.E., 1921. *Logic: Part I*. New York: Dover Publications 2

Moltmann, Friederike, 2003. "Nominalizing Quantifiers". *The Journal of Philosophical Logic* 32: 445–481 1

Prior, Arthur Norman, 1949. "Determinables, Determinates and Determinants". *Mind* 58: 1–20, 178–194 2

Ramsey, Frank Plumpton, 1925. "Universals". *Mind* 34: 338–384. Reprinted in Ramsey (1931: 112–137); cited after reprint in Ramsey (1990) 3

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, 2002. *Resemblance Nominalism: A Solution to the Problem of Universals*. Oxford: Oxford University Press 2

Sanford, David H., 2002. "Determinates vs. Determinables". In Zalta, Edward N., editor, *The Stanford Encyclopedia of Philosophy*. Stanford, California: The Metaphysics Research Lab, Center for the Study of Language and Information. URL http://plato.stanford.edu/entries/determinate-determinables/. Version of April 26, 2002 2