

Book Review

Ruth Barcan Marcus. *Modalities*. Oxford University Press, Oxford, 1993. xiv + 266 pages.

This collection of papers by one of the foremost modern philosophical logicians spans her career to date. Its contents are:

1. Modalities and Intensional Languages.
2. Iterated Deontic Modalities.
3. Essentialism in Modal Logic.
4. Essential Attribution.
5. Quantification and Ontology.
6. Classes, Collections, Assortments, and Individuals.
7. Does the Principle of Substitutivity Rest on a Mistake?
8. Nominalism and the Substitutional Quantifier.
9. Moral Dilemmas and Consistency.
10. Rationality and Believing the Impossible.
11. Spinoza and the Ontological Proof.
12. On Some Post-1920s Views of Russell on Particularity, Identity, and Individuation.
13. Possibilia and Possible Worlds.
14. A Backward Look at Quine's Animadversions on Modalities.
15. Some Revisionary Proposals About Belief and Believing.

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Marcus was a pioneer of quantified modal logic and its philosophical interpretation, and many hotly debated topics in current philosophy of language find early airings in her work; for example, in (1), we read (pp. 11–12): “...to assign a thing a proper name is different from giving a unique description.... This identifying tag is a proper name of the thing.... This tag, a proper name, has no meaning. It simply tags.” From the list above, my review will focus mainly on the papers on such topics.

Quantified modal logic was famously attacked by Quine on two central grounds. The first is that it is committed to a meaningless kind of quantification, manifested in such a formula as “ $(\exists x)\Box\varphi x$.” In general, Quine holds that if a term occurs in a referentially opaque position—if it cannot be replaced by a coreferential term *salva veritate*—then quantifying into that position produces nonsense. A plausible example is his “Giorgione was so-called because of his size”: ‘Giorgione’ occurs in opaque position, and “ $(\exists x)(x \text{ was so-called because of his size})$ ” is indeed nonsense, “there being no longer any suitable antecedent for ‘so-called’” (Quine [3], p. 22). If “ $(\exists x)\Box\varphi x$ ” is like this, quantified modal logic is indeed in trouble. Quine’s second objection to quantified modal logic is that it involves a commitment to “Aristotelian essentialism”: someone who purports to make sense of modalized property attributions will have to distinguish between an object’s essential properties and its inessential ones, a project of which Quine takes a dim view ([3], p. 30).

Marcus’s response to the first problem is to propose that quantifiers be read *substitutionally*, as opposed to their standard objectual construal, although she emphasizes in (5), p. 80, that she thinks the substitutional construal is independently plausible, apart from its role in interpreting *de re* modality. An objectual interpretation of the quantifier in “ $(\exists x)\Box\varphi x$ ” requires a domain of discourse, and the formula’s truth requires that there be some object in that domain which satisfies “ $\Box\varphi x$.” A substitutional interpretation requires a substitution class of expressions, and the formula’s truth requires that making a substitution from that class for ‘ x ’ in ‘ $\Box\varphi x$ ’ produces a truth. Indeed, Quine conceded in a discussion reproduced in *Modalities* (see p. 27) that “If... we do not have quantification in the old sense, then I have nothing to suggest about the... difficulties of modal logic.” But in assessing substitutional quantification, it is useful to keep the quantification of the ‘Giorgione’ example in mind. A substitutional reading of *its* quantifier permits us to say that (i) “ $(\exists x)(x \text{ was so-called because of his size})$,” or (ii) “someone was so-called because of his size,” is true because it has a true substitution instance. Yet although one can see that this is formally correct, it still seems that (i) and (ii) *are* nonsense, on any ordinary understanding of the quantifier. In the same way, perhaps the substitutionalist rescuing of “ $(\exists x)\Box\varphi x$ ” merely associates a truth condition with it, without bestowing any real sense on it.

In fact, Marcus was one of those who showed that the premise of Quine’s argument, that substitutivity fails in modal contexts, is incorrect (see p. 191, n. 7 for references). So a preference for the substitutional reading of quantifiers needs a different motivation. Marcus’s is that the substitutional interpretation is the more general interpretation, existentially committing quantification being a special case associated in the first instance with a special substitution class, that of proper names, and then with other classes of expression to which the ordinary notion of reference can sensibly be extended. She writes, “There are, even in ordinary use, quantifier phrases that seem to be ontologically more neutral, as in ‘It is sometimes the case that species and

kinds are...extinguished.' It does not seem to me that the presence there of a quantifier *forces* an ontology of kinds or species" (8), p. 122). My own reaction to this kind of case is that it shows how casual ordinary thought is in admitting all kinds of objects: *of course* species and kinds exist—if they didn't, how could they be extinguished? The casualness is perhaps based on an inchoate view that everything we want to say about species and kinds could be said, albeit at greater length, just by talking about the more concrete individuals that belong to these relatively abstract entities. If this view is right, the sort of ontological commitment that is "forced" by interpretation of Marcus's example as involving use of objectual quantifiers is harmless.

Regarding essentialism, discussed at most length in (4), Marcus responds to Quine's criticism by pointing out that the Kripkean semantics of modal logic is committed only to essential properties of the most anemic kind: existence, self-identity, and the like. She also points out that if nonanemic essential properties are to be abjured, the result is an ontology of bare particulars ((4), p. 64). This is not exactly an advantage for the opponents of Aristotelian essentialism.

The themes that are prominent in discussion of modalities raise their heads again in connection with propositional attitudes, to which Marcus has turned in more recent work. As an originator of "direct reference" theory, she is concerned to face that theory's most significant challenge, the apparent failure of substitutivity of identicals in propositional attitude ascriptions and the fact that this failure sits much more comfortably with "sense" theories of reference than with "no-sense" theories. Lois Lane believes that Superman is an extraterrestrial but not that Clark Kent is, even though Superman is Clark Kent. How better to explain this than by attributing to Lois two different ways of thinking of that person, and to attitude ascriptions a mechanism for invoking ways of thinking selectively, depending on the name used in the ascription (see, for example, Crimmins [1] and Forbes [2])?

One line that a direct reference theorist might pursue is to deny failure of substitutivity; if we then take Lois's words at face value, it seems that she will believe explicitly contradictory propositions, $\langle \text{Superman, being an extraterrestrial} \rangle$ and $\langle \text{Neg, } \langle \text{Superman, being an extraterrestrial} \rangle \rangle$. Again, the sense theorist seems to have an advantage, since he need not attribute belief in a contradiction (if ways of thinking of Superman are the propositional constituents rather than Superman himself). But in (15) Marcus develops a position which does not have Lois believing contradictory propositions. This is because she gives up the propositional model of belief altogether, and proposes instead that we take belief to be a relation between a believer and a state of affairs: to believe that *S* is to be disposed to act as if the state of affairs that *S* obtains (pp. 240–241). At worst, then, Lois believes an impossible state of affairs, which is less puzzling than believing a contradiction (pp. 248–9). And Marcus goes on to argue that on normative grounds, one should not even allow belief in impossible states of affairs: she proposes as a necessary condition for taking a speaker's avowals at face value in ascribing belief that the speaker's "...actions, including her speech acts, are coherent and preserve a norm of rationality in the wide sense" (p. 254), and argues that (in terms of my example) when Lois discovers who Superman is, she "...might say that she only claimed to believe that [Superman] was not the same as [Clark Kent], for such a belief comes to believing of a thing that it is not the same as itself and that does not meet logical norms of rationality" (p. 254).

Is this approach an improvement over other direct reference theories, for instance Salmon [4]? Formally, the nonpropositional model of belief seems coherent, though there is a strong intuition that it is propositions, not states of affairs, that are believed. This traces, I think, to the view that holding a belief is being disposed, for certain reasons, to give mental assent to a particular representation of how things are. But states of affairs are not representations; if anything, they are the things represented. In addition, Marcus's alternative account of believing that *S* as being disposed to act as if the state of affairs that *S* obtains is unpersuasive. Even if I know that the state of affairs that *S* obtains, how that disposes me to act is entirely dependent on what my other beliefs and desires are: human sacrifice and the construction of desalination plants are both responses to water shortages.

The main problem, however, is that even on Marcus's own terms, it does not seem plausible that Lois's actions fail to preserve "a norm of rationality." Being a victim of bad luck, or being misled by circumstances whose nature is beyond one's control, is not in itself a failure of rationality. We can well understand how it would be possible to encounter the same person in different situations and in the second situation fail to recognize this person as the one previously encountered, particularly if the person in question is a being of superior powers who is striving to produce exactly this effect. It is hardly evidence of irrationality that one is duped in such a case. The natural thing to say is that one's representation of how things are will, in these circumstances, quite reasonably include two person-representations where in fact there is only one person. And from this it is a short step to propositions with neo-Fregean identity conditions and the belief ascriptions that direct reference theory has such difficulty explaining. In my opinion, how these phenomena are to be reconciled with the highly effective critiques of sense theories developed by Marcus and others is one of the most fascinating questions in current philosophy of language, and it is still an open one.

REFERENCES

- [1] Crimmins, M., *Talk About Belief*, MIT Press, Cambridge, 1992. 1
- [2] Forbes, G., "The indispensability of Sinn," *Philosophical Review*, vol. 99 (1990), pp. 535–563. 1
- [3] Quine, W. V., "Reference and modality," pp. 17–34 in *Reference and Modality*, edited by L. Linsky, Oxford University Press, Oxford, 1961. 1, 1
- [4] Salmon, N., *Frege's Puzzle*, MIT Press, Cambridge, 1986. 1

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