

APPENDIX III • *Fregean Theory and the
Four Worlds Paradox:
A Reply to David Over*

34. FREGEAN THEORY

Dr. Over's stimulating and thought-provoking notice of my book is divided evenly between the two topics mentioned in the book's title. I am pleased, of course, by Over's favorable reactions to both aspects of the book. His main criticisms of the book are also thus divided, concentrating on the arguments against Fregean theory, and on my treatment of the modal Four Worlds Paradox. I shall briefly outline my disagreement with these criticisms.

Over's response to Keith Donnellan's semantical argument concerning Thales is ineffective. Over recognizes that, for the Fregean, Aristotle himself, or someone "further down the line," must attach a sense to 'Thales' not unlike the one criticized in the argument. But then the argument still applies; it applies to Aristotle, or to someone further down the line. Moreover, the semantical argument applies equally to Over's proposal that the sense we attach to 'Thales' is given by the description "the man Aristotle called 'Thales'." Suppose all the works attributed to Aristotle involving mention of Thales were really written by a handsomely paid ghostwriter, and that although Aristotle himself signed his name on them, he had never read the works nor heard of the Thales mentioned in them. Suppose further that, purely coincidentally, Aristotle was fond of referring to his student Alexander by the nickname 'Thales' when no one was around to hear it. Over's proposal would commit him to claiming that, though we would not realize it, we would then be referring to Alexander the Great by our use of the name 'Thales' instead of the Greek philosopher. Surely this is mistaken. In some cases, there may well be definite descriptions against which the semantical arguments have no force, but Over's specific proposal in the case of 'Thales' is not one.

In any event, there are also the modal and epistemological arguments against Fregean theory. Over objects to the modal arguments that either they are vulnerable to the famous scope reply, first men-

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tioned by Saul Kripke and later advanced by Michael Dummett and others, or else they are framed in terms of possible worlds, and hence not solely in terms of Fregean concepts. A successful objection to Fregean theory need not be framed solely in terms of concepts invoked in Fregean theory itself, but in any case the concept of a possible world, or something directly akin to it, is easily constructed from elements of Fregean theory. For example, for a great many purposes one may define a *possible world* to be a maximal consistent set of thoughts such that it would be possible for all of them to determine the True together. More importantly, a modal argument may be framed directly in Fregean terms as follows: Scholars use the name 'Deutero-Isaiah' to refer to whoever wrote such-and-such chapters in the Book of Isaiah. Consider the sentence 'Deutero-Isaiah wrote portions of the Book of Isaiah.' According to the Fregean theory, this sentence has the same cognitive value (*Erkenntniswerte*) as 'The man who wrote such-and-such chapters in the Book of Isaiah wrote portions of the Book of Isaiah.' The following considerations disprove the Fregean account. Let '*P*' name the actual cognitive value of the first sentence and let '*Q*' name the actual cognitive value of the second sentence. Now both *P* and *Q* in fact determine the True, but *P* is such that it might have determined the False instead, whereas *Q* could not determine the False. In particular, if the man who actually wrote the relevant passages of Isaiah had not done so and someone else had instead, *P* would determine the False, though *Q* would still determine the True. Therefore the Fregean theory that $P = Q$ is false.

The Dummett-style response that *P* and *Q* are given wide scope in the preceding is completely ineffective against this Fregean formulation of the modal argument. The wide-scope reading is in perfect accord with the argument's intent. One may even reformulate the argument in such a way as to force the wide-scope reading, as follows. The first sentence has a cognitive value *P*, which is such that: it might have determined the False. The cognitive value *Q* of the second sentence is such that: it could not determine the False. It still follows that the two sentences differ in cognitive value. No doubt the loyal Fregean will reject the first premise of this argument. Such is the way of philosophical argumentation: one philosopher's *modus*

tollens is his opponent's *modus ponens*. A philosophical argument may be addressed to the committed opponent, but nine times out of ten it is intended more for the uncommitted agnostic. The committed Fregean may deny a premise of the modal argument, but the argument cannot be summarily dismissed as a mere *non sequitur* or as somehow inappropriate.

Over objects to my claim that a genuine Fregean sense, properly so called, must be purely conceptual (in a more or less ordinary sense, not Frege's sense of 'concept' or "*Begriff*"), involving no direct reference, on the ground that Frege allows that definite descriptions essentially involving single-word indexicals have sense, for example, 'the star closest to *you* and *me*'. This objection raises large issues concerning the most fundamental aspects of Fregean theory. I make no claim to any deep new insights into Frege's views, and I am therefore more than a little reluctant to add my voice to the din of recent Frege scholarship, but I will say that if Over's claim is that Frege's notion of sense allows for something like Russellian singular propositions and singular relational concepts having nonconceptual objects as constituents, nothing could be more deeply mistaken. To suppose that a genuine Fregean sense can include you and me as constituents, rather than purely conceptual representations of us, is to fail to grasp the very point of Frege's distinction between *Sinn* and *Bedeutung*, and does violence to his notion of *Sinn*. Frege seems fairly explicit on this point in his exchange with Russell, in the former's *Philosophical and Mathematical Correspondence*, ed. McGuinness (1980), pp. 149–170, especially pp. 153, 157–158, 163. For Frege, the sense of 'the star closest to me' is a product of the senses of its parts, including the sense of 'me', as used by the speaker, and Frege left no doubt that the latter sense is not the speaker himself or herself. Senses never include nonconceptual objects as constituents. The sophisticated philosopher who is prepared to renounce this fundamental component of Fregean theory can hardly be labeled a Frege supporter any more. A genuinely Fregean theory, true to the spirit of Frege's views, cannot allow any direct reference; all reference

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must be *thoroughly descriptive*, in the sense specified earlier in this volume, p. 55. (This does not mean that for every singular term there is *in fact* an exact synonym in some nonindexical definite description constructed from only general predicates, though for Frege, given any singular term, there is no reason in principle why it *could not* have such a synonym.) This is absolutely essential to Frege's notion of sense. Nothing counts as the *Sinn* of a term, properly so called, unless it is the term's information value (*Erkenntniswerte*), its purely conceptual content, and what secures the term's referent, all at once. A descriptive term is one whose descriptive or representational content ("mode of presentation") secures its referent. A thoroughly descriptive term is a descriptive term whose representational context is purely conceptual, involving no nonconceptual objects as constituents. Only then can a term be said to have a genuine Fregean sense. The notion of a genuine Fregean sense involving direct (nondescriptive) reference is incoherent, like the concept of a married bachelor.

35. THE FOUR WORLDS PARADOX

Over's construction of a temporal philosophical problem analogous to the Four Worlds Paradox is very intriguing. I cannot see why Over regards it as a paradox stemming from vagueness rather than as proof of the falsity of the assumption that any disassembled ship can always be reconstructed by simply reforming a certain sufficient quantity of its original matter, with some very small portion of new matter, into a ship according to the same plan. In Over's example, once the distinct ship b^* has been constructed at t_2 , it is impossible to reconstruct the original ship a at t_3 simply by putting together the parts specified, since b^* , having been more recently constituted by the bulk of that matter in that form, and being now disassembled, has preempted a 's claim to be the ship formed by putting that very matter together in that way. Ship b^* has a dominant claim to be the ship thus constructed at t_3 . Whereas if b^* had never been constructed, a would

have resulted from the construction process at t_3 rather than b^* . (Cf. this volume, pp. 225–227.) Something exactly analogous also obtains in the case of the Four Worlds Paradox. In the world w_2 , ship b exists whereas ship a does not. Hence with respect to w_2 , b is the ship that *would have been* constructed if the matter in w_3 and w_4 were put together just as it is in those worlds, and thus w_4 would have obtained rather than w_3 . With respect to w_1 , on the other hand, if that very same matter had been put together in the very same way, a would be the result and w_3 would obtain instead of w_4 . It is a mistake to think of the simple earlier-later relation among times as a perfect temporal analogue to accessibility among worlds. (Recall that the earlier-later relation is neither reflexive nor symmetric.) A better temporal analogue to accessibility would be the relation *t' is within one hundred years of t* . (Such a relation is useful in doing semantics for the complex temporal operator ‘it was the case within the last one hundred years or it is the case or it will be the case within the next one hundred years that’. As with the metaphysical possibility, iterations of this operator do not collapse.)

In his discussions of the alleged vagueness of identity statements, Over follows Thomason in confusing genuine vagueness with an entirely distinct phenomenon best classified as a species of ambiguity. A general term or predicate may be (extensionally) *empty*, in which case, its semantic characteristic function (Frege’s *Begriff*) is a constant function to falsehood, and a predicate may be (extensionally) *ambiguous*, in which case it has two or more semantically associated characteristic functions. In addition, a predicate may be (extensionally) *vague*, in which case its semantic characteristic function is only partially defined over the set of (n -tuples of) individuals. (The semantic intension of a predicate is the function that assigns to each possible world w the semantic characteristic function of the predicate with respect to w . The semantic characteristic function (*simpliciter*) of a predicate is its semantic characteristic function with respect to the actual world. An intensionally ambiguous predicate is one having two

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or more semantic intensions. A predicate may be intensionally vague, in which case its semantic characteristic function with respect to at least one possible world is partially defined. This is not to say that an intensionally vague predicate is extensionally ambiguous among various functions from possible worlds to total characteristic functions, or that an extensionally vague predicate is intensionally ambiguous among various totally defined semantic characteristic functions.) An unambiguous term (what Thomason misleadingly calls a 'precise designator') may still be vague (e.g., 'fetus'), and an ambiguous term may be vague on some readings and not on others (e.g., 'odd'). Thomason's observation that an identity statement may be true on one reading ("regimentation") and false on another because of ambiguity (erroneously called 'vagueness') in the singular terms is entirely irrelevant to my proof that the semantic characteristic function (with respect to any possible world) of the 'is' of identity is totally defined over all pairs of individuals, and hence that the identity predicate is (both extensionally and intensionally) nonvague (see this volume, pp. 243–245).

Over's preferred position on the Four Worlds Paradox appears to be that $w_3 = w_4$ and that the names '*a*' and '*b*' are ambiguous ("vague"), where one candidate for being the referent of '*a*' includes the $w_3 (= w_4)$ possible world-slice of a ship, the ship-in- w_3 , as a world-slice and another does not, and similarly for '*b*'. (See this volume, pp. 108–111, on possible world-slices of cross-world continuants.) If one countenances possible world-slices, though, it should be clear that both ships *a* and *b* *must* include such world-slices, since it is true by hypothesis that with respect to w_1 *a* might have been originally formed from the matter in w_3 , and similarly for *b* with respect to w_2 . If for some reason this has not been made clear enough in setting up the Four Worlds Paradox, I hereby *stipulate* that '*a*' names a ship which includes such a world-slice, and so does '*b*'. Over must claim, then, that there are two distinct ships, *a* and *b*, constituted by the very same matter in $w_3 (= w_4)$. By considering other possible variants of *a* in addition to *b*, it emerges that Over must

claim that there are indeed at least thousands of ships constituted by the very same matter in w_3 , and he seems prepared to accept this. But w_3 may be the actual world! I find it distinctly implausible to suppose that there are thousands of ships located in the very same place in a single berth, or that I possess a fleet of automobiles simply by virtue of owning a 1978 Volkswagen. (I wouldn't mind were it not for the fact that when one car breaks down, they all do. With the cost of auto repairs being what it is nowadays, I would be better off with just the one I've got.)

Needless to say, I cannot do justice here to all of Over's criticisms, but I hope that I have said enough to give some indication of the nature of our disagreements. I should like to close this response by expressing gratitude to Dr. Over for his stimulating discussion.