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Review of
CLAIRE ORTIZ HILL, *RETHINKING IDENTITY AND METAPHYSICS*

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This book has two main parts: *The twilight zone* and *The quest for a clear extensional ontology*. The first part is divided into six chapters: 1. *Unfettering reasoning*, 2. *The equals sign*, 3. *Confusing sign and object in identity statements*, 4. *Confusing names and descriptions in identity statements*, 5. *Confusing concepts and objects in identity statements*, 6. *Equating equality and identity*. The second part includes five more chapters: 7. *Identiiy and Frege's foundations for arithmetic*, 8. *Russell on the origins of the set-theoretical paradoxes*, 9. *Russell's paradoxes and his theory of definite descriptions*, 10. *Propositional attitudes*, 11. *Modalities*. There follows a *Conclusions* chapter. All this is preceded by a long list of *Acknowledgments*, and completed by a fourteen page *Bibliogrqphy* (plus *Notes* and *Index*).

The main goal of the author is to vindicate *intensions*. According to Ortiz Hill, the modern logic tradition has neglected, if not altogether removed intensions from logical theory, in favor of *extensions*. The connection between this principal content of the book and its title is easy to see. On the one hand, intensions have a great metaphysical value: they are "part of the ultimate furniture of the universe" (p. 152); on the other hand, the "desintensionalizing" (p. 53) of modern logic has been caused by a confusion of full identity and mere equality. Thus, removing such a confusion from our conception of identity or, more generally, *rethinking identity*, should lead, through the recovery of intensions, to a better appreciation of metaphysics. Responsible for the confusion was Gottlob Frege: "Logical maneuvers by which a lesser form of equivalence becomes equated with identity have played a fundamental role in logic since Frege began writing such devices into the foundations for logic, mathematics, and philosophy in his *Foundations of Arithmetic* (§§62-69)" (p. 45).

In the last quoted statement, Ortiz Hill is obviously referring to the method followed by Frege in the definition of number. Given that two concepts are such that their objects can be put in one-one correspondence ("a lesser form of equivalence"), Frege moves to the assertion of the identity between the numbers associated with each concept, which, upon addition of the converse move, becomes the biconditional that represents the first step in Frege's definition of number. The second step consists in choosing appropriate objects as reference of the singular terms of the form "the number of the concept F" — the choice being totally arbitrary as long as it is compatible with the biconditional. The author's phrase "logical maneuvers" reveals a negative view of Frege's procedure, which this reviewer shares, but for different reasons. In this reviewer's opinion, the flaw lies in the arbitrariness of the choice performed in the second stage. Ortiz Hill sees the evil of Frege's procedure elsewhere, namely in having led — she claims — to the obliteration of intensions and to the enshrinement of extensions. However, it is clear that there is absolutely nothing in Frege's two-stage procedure, as described above, that necessarily brings about such a victory of extensions over intensions. That Frege happens to choose extensions (classes) as reference of the singular terms of the form "the number of the concept F" is due not to his method but to other, quite independent reasons, having to do with his program of viewing numbers as objects ("saturated" entities) rather than as concepts. (Also, incidentally, it is wrong to call Frege's procedure "abstraction" (p. 45 - 49); but this is a rather general mistake: in a tradition started with Peano, many have applied the phrase "definition by abstraction" to Frege's method in spite of the fact that, quite obviously, it does not involve any "retaining" and "leaving out", the essential features of abstraction, in Locke's words).

Even if Frege's method, contrary to the author's claim, cannot be blamed for having caused the alleged "desintensionalization" of modem logic, one may still wonder what was Frege's position with regard to the intensions-extensions debate. The fact is that for Frege concepts come first (they are *das Ursprüngliche*: what is original[1]), and that extensions have their *Halt*[2] (support, consistency, strength), and *Bestand*[3] (being) in concepts. In sum, for Frege *Der Begriff hat also den logischen Vorrang vor seinem Umfange*[4] (the concept has logical priority over its extension). Moreover, it is hard to imagine a philosopher who

[1] "Ausführungen über Sinn und Bedeutung", in [2, p. 134].

[2] "Kritische Beleuchtung einiger Punkte in E. Schröders Vorlesungen über die Algebra der Logik", in [1, p. 210].

[3] "Über Schoenflies: Die logischen Paradoxien der Mengenlehre", in [2, p. 199].

[4] "Kritische Beleuchtung...", *ibid.*

has contributed more than Frege, through his revolutionary distinctions concerning marks, properties, and predication, to the proper analysis and management of attributes, *i.e.* of intensions. Predication is obviously a central nerve in the world of intensions, and the fact is that the history of the theory of predication has two periods: *before* and *after* the opening lines of §53 of Frege's *Grundlagen der Arithmetik* (1884). This profoundly intensional approach did not prevent Frege, of course, from acknowledging that in many contexts, such as mathematical ones, what matters is not the concept but the class.

Here are a few misprints: p. 45 (fourth and fifth lines of first full paragraph: "...could be have been..."), 61 (second paragraph, second sentence: ".. if determined in a different way, ..." : this is not quite clear, and could involve a misprint), 62 (line seven: should be "the grassy knoll"), 72 (in the quotation from Frege, in the middle of the page, the plural "The expressions..." should be replaced by a singular "The expression"; this error is just inherited from the English translation used by the author; the original German is "Der Ausdruck"[5]), 136 (double occurrence of "attribute"), 138 (the portion "because expressions ... so that they did", in the first paragraph, seems to require some adjustment). Throughout the book the last name "Rodriguez Consuegra" is misspelled as "Rodriguez Consuerga". On p. 64, line 4, and then again on p. 110, the author appears to understand one of the two halves of Frege's Axiom V as follows: if the courses-of-value of two functions are identical, then the functions are identical. Ortiz supports such a reading on *Grundgesetze der Arithmetik* I, §9 and §21; the reference to §21 seems to be a misprint, while the reference to §9 does not justify in the least the author's reading. To be sure, two functions that yield the same value for each argument may be wisely regarded as having the same *Bedeutung* — in the sense of importance (for truth, which is the goal of logic), and indeed as behaving identically for most purposes, but this does not mean that they are identical.

References

[1] G. Frege, *Kleine Schriften*, Darmstadt: Wissenschaftliche Buchgesellschaft, 1967.
[2] G. Frege, *Nachgelassene Schriften*, Hamburg: Meiner, 1969.
[3] G. Frege, *Wissenschaftlicher Briefwechsel*, Hamburg: Meiner, 1976.

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[5]Letter from Frege to Hönigswald, 1925, in [3, p. 86].