## NOTE ON THE SIGNIFICANCE OF THE NEW LOGIC

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W.V. Quine *The Significance of the New Logic*, ed. and tr. Walter Carnielli, Frederique Janssen-Lauret, and William Pickering, with an accompanying essay by Frederique Janssen-Lauret, Cambridge University Press, 2018

As analytic philosophy is becoming increasingly aware of and interested in its own history, the study of that field is broadening to include, not just its earliest beginnings, but also the mid-twentieth century. One of the towering figures of this epoch is W.V. Quine (1908-2000), champion of naturalism in philosophy of science, pioneer of mathematical logic, language enthusiast and world traveller, trying to unite an austerely physicalist theory of the world with the truths of mathematics, psychology, and linguistics. Quine is best known among philosophers for his attack on the distinction between analytic truths and synthetic truths. He argued logic, language and mathematics are continuous with natural science, not separable from it. All truths depend on what words mean and on what the physical world is like; these are inextricably linked in scientific explanation.

Quine's posthumous papers, notes, and drafts revealing the development of his views in the forties have recently begun to be published. So have careful historical-philosophical studies of the evolution of his philosophical views, especially his key doctrine that mathematical and logical truth are continuous with the truths of natural science, not analytically true in virtue of meaning alone. But no Quine scholars thus far have included any discussion of Quine's fourth book on logic and its philosophy. This book constituted Quine's farewell to logic as he embarked on an assignment in the US Navy in 1942, uncertain he would return and deeply anxious about the state of the world. In a letter to his friend and mentor Carnap, Quine described this book as marking a crucial change in his thinking on meaning and analyticity Quine (1943: Letter to Carnap, in R. Creath (ed.) Dear Carnap, Dear Van, University of California Press, 299). Why have English-speaking philosophers have neglected such an interesting source until now? The answer is that they were unable to read it, because Quine wrote his book, Quine (1944: O Sentido da Nova Lógica, São Paulo: Martins), in Portuguese, during a visiting professorship at São Paulo.

Quine, who loved languages, spoke fluent German as a result of his association with Carnap and the Vienna Circle, and had previously picked up a little Portuguese on sabbatical in the Azores. He faced a steep learning curve trying to introduce Brazilians to 'the new logic', the modern mathematical logic used by philosophers of mathematics and science, positivists, logicists, and pragmatists to interpret contemporary developments in science and mathematics. With support from his Brazilian assistant Vicente Ferreira da Silva, Quine managed to use his book to explain the new logic's applications to logicism,

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transfinite mathematics, the incompleteness of arithmetic, proof theory, set-theoretic and semantic paradox, formal theories of truth, and new approaches to ontology. But after Quine returned from the war, his views had shifted and an English translation never materialised, apart from a few pages translated by Quine himself which he had published as a journal paper, Quine (1943: 'Notes on Existence and Necessity', *Journal of Philosophy*, 40, 113-127).

As a Anglophone post-doc specialising in philosophy of logic and Quine scholarship, I collaborated with Prof. Walter Carnielli, professor of logic at the University of Campinas, and Dr William Pickering, an American linguist bilingual in English and Portuguese on the first full English translation of *O Sentido da Nova Lógica*, supported by two postdoctoral grant (CAPES and FAPESP). The book is now published by Cambridge University Press.

Besides the translation of Quine's book, the volume also contains my accompanying historical-philosophical essay, Janssen-Lauret (2018: 'Willard Van Orman Quine's Philosophical Development in the 1930s and 1940s', in The Significance of the New Logic (ed. and tr. W. Carnielli, F. Janssen-Lauret, and W. Pickering), Cambridge University Press, xiv-xlvii). I explain the significance of the book for the history of Quine's views on analyticity. Quine's important work on impurely designative occurrences of terms, such as 'Giorgione' in 'Giorgione is so-called because of his size', dates from The Significance of the New Logic. I also argue that the book contains equally crucial developments in Quine's philosophy of logic and views on ontology. Another key Quinean doctrine first articulated in this book is the virtual theory of sets, given a weighty role in Quine's later work on set theory, Quine (1963: Set Theory and Its Logic, Harvard University Press). Quine also made several of the well-known arguments of Quine (1948: 'On What There Is', Review of Metaphysics, 2(5), 21-38), or clear precursors of them, for the first time in The Significance of the New Logic, Janssen-Lauret (2018: xxx-xxxiii). From a historical point of view, the book reveals the influence of philosophers other than Carnap, including Whitehead and Russell, Tarski, and notably Frege, to whom Quine attributes the 'essential content' of the work on impure reference Quine (2018: 85).