

EXTENSIONALISM

In an interview with Fara,¹ Quine was asked what the main tenets of his philosophy were. Quine named two, naturalism and extensionalism. Naturalism is the more famous of the two nowadays, and has a big impact on contemporary debates in all philosophical disciplines in the Anglo-Saxon tradition. The relevance of Quine's naturalism in ontology will be discussed in chapter 6, dealing with the epistemology of ontology, *i.e.* a naturalised epistemology of ontology.

In this chapter I will concentrate on Quine's other tenet, extensionalism. Roughly, the thesis expresses the view that there is nothing to a class but its members. This means that a class is the collection of its elements only, and that there is no 'idea' behind a class that is satisfied by all the elements. The first application of this thesis was in logic. The outset of Quine's doctoral dissertation was to rewrite *Principia Mathematica* extensionally. Though this thesis seems relevant only in logic or set theory, it has consequences in the most remote parts of Quine's philosophy. The thesis has a heavy impact on Quine's conception of logic, ontology, and language, and even ethics,² as can be seen in the following autobiographical passage:

The air I breathed was mildly anti-Semitic. I think of Bob Goldsmith, Al Green, and Herb Rose, schoolmates of mine ... I liked these boys. What a pity, I thought, that they are Jews. Then I had a flash of philosophical insight, as memorable as the one that had put paid to my religious faith some years before. Why, I asked myself, is it a pity that they are Jews, rather than its being a credit to the Jews? It was my first implicit appreciation of the principle of *extensionality* by which I have set such store down the decades: the universal is no more than the sum of its particulars.³

Quine places this tenet on the same footing as naturalism, and a careful reading of Quine will convince the reader that both theses are indeed of crucial importance. However, the received view⁴ is that naturalism is the hard core of Quine's philosophy, while extensionalism is only of limited importance. Everybody will accept that in the discussion of modality and

propositional attitudes, Quine's views have to be taken into account. All apologies of modal logic start with a defence against, or an attack on Quine's extensionalism, but this is a well-specified discussion without apparent broader repercussions. Extensionalism is far more important than this. In particular, in the beginning of Quine's philosophical career extensionalism was the main theme in his thought. Since the seventies, naturalism has become dominant, but extensionalism has kept its importance, and even in his latest papers⁵ Quine has defended extensionalism.

In this chapter I will sketch Quine's extensionalism. Extensionalism is intimately related to the notion of identity. The result of extensionalism is that precise identification of objects is always feasible. In the first section Quine's notion of identity will be discussed in detail. In the second section the development in Quine's early logical writings will be revisited. It will be sketched how the logical system PM was transformed to the extensional set theory ML. The third section deals with objects other than sets that fit in an extensional theory, namely physical objects. Precise identification of these objects is guaranteed by the space-time frame. In the fourth section it will be shown how Quine relinquished Carnap's extensional treatment of qualities. The result is that kinds, qualities, dispositions and the notion of similarity are untrustworthy but scientifically indispensable. In the fifth section, it will be shown that Quine objected to meanings and the notion of synonymy. Quine's objections were first inspired by extensional motives. In the sixth section, the universe of entities is reduced to physical objects and sets. The interplay between these remaining objects is highlighted.

1. IDENTITY

Quantification was the main theme in the first chapter, and the acceptability of sets in the second, or in other words, the discussion was about " $\exists x$ " and " \in ". This chapter will deal with another logical sign, namely " $=$ ". This is the sign of identity, and may be read as "is identical with".

Identity and discriminability are of utmost importance in Quine's ontology. The central role of identity in the individuation process of objects makes a lengthy exposition of Quine's conception of the notion of identity indispensable. Individuation or reification of objects is possible if the objects can be clearly identified. Ontological commitment to entities is only possible if there are clear criteria of identity for the objects. This is expressed in the familiar slogan "No entity without identity."⁶ For Quine,

the search for criteria of identity is at the core of his ontological enterprise, and this will set due attention. But first Quine's notion of identity itself will be explored.

Identity is usually treated as a primitive idea:

Identity is such a simple and fundamental idea that it is hard to explain otherwise than through mere synonyms. To say that x and y are identical is to say that they are the same thing. Everything is identical with itself and with nothing else.⁷

We are well acquainted with the idea of identity, and the idea is well entrenched in ordinary language. We often use expressions such as "Quine is the author of *Word and Object*", or "Van⁸ is Quine". We write the "is" of identity between two singular expressions, and the thus formed sentence is true if there is only one and the same object both singular expressions refer to.

The difference between sign and object is important here:

What makes identity a relation and ' \equiv ' a relative term, is that ' \equiv ' goes between distinct occurrences of singular terms, same or distinct, and not that it relates distinct objects.⁹

Quine mentions some philosophers that have misconstrued identity: Leibniz, Hume, Frege, Wittgenstein, and Whitehead.¹⁰ Their problems were caused by the obscurity the notion of relation was in. Relations were thought to bear one object to another, and the perplexity over identity was caused by the fact that identity bore each object to itself. Hume did not understand in what sense it could be a relation and not just express existence. Others, *e.g.* Leibniz, thought that identity was a relation between signs. Quine has strongly opposed this view. The end of the quandaries about identity may be attributed to the clarification of the notion of relation by construing it as a class of ordered pairs.¹¹

This is of course a rough introduction of the notion 'identity'. Ontology is studied in a logically regimented language, and in this language names and singular terms are eliminated. In a logically regimented language, the identity sign is placed between two variables. Moreover, the elimination of singular expressions, which are regarded as definite descriptions, is carried out using the identity relation. Hence, there is circularity in explaining identity by means of singular expressions.

Identity must be introduced in logic at a basic level. This goes as follows. The adding of an axiom and an axiom schema extends the logic of quantification. The axiom that can be added is

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