Chapter 1
Introduction

I - Plato's Challenge

Whole and part are among the most pervasive notions that occur in our thinking, and philosophical thought in particular seems to be bound up with them in its very essence. On the face of it, almost anything we care to think about may be considered as a whole and as having parts, or as being itself a part of some greater whole. In attempting to understand ourselves and our environment, we divide or analyze (a whole into parts), we collect or synthesize (parts into a whole), we discern many parts composing one whole, and one whole composed of many parts. When, aspiring to understand, we reflect on the things we see, hear, imagine or conceive, on everyday objects, on sentences or stories or melodies, on historical events, on our own actions, on mathematical structures, on the products of art, on space and on time, on reality considered metaphysically or theologically – we are almost irresistibly led to consider them in the light of the notions of whole and part.

Anything in which we can discern parts is susceptible to two apparently distinct perspectives – a perspective concerned with one thing, the whole, and a perspective concerned with many things, the parts. We may call these the singular and plural perspectives, respectively. The ability to shift from one to the other is something we usually take for granted in thought and communication, so much so that we often do not even notice that our perspective thus undergoes a shift. It is an important ability, for it provides us with the rudiments of an almost universally applicable method of investigation, one which we can hardly imagine doing without. By shifting attention to the parts of something, and studying those parts, it seems that our understanding of the thing itself is increased. It is doubtful whether there can be a science or an explanatory theoretical activity of any sort which does not make extensive use of this vaguely stated methodological principle.

Therefore, the notions of whole and part are philosophically interesting not only because they are widely applicable – that is, because almost everything seems to be either a whole or a part or both - but more importantly because they seem to play a crucial role in theoretical activity

in general, the role associated with providing an understanding of a whole with reference to its parts, as well as (though perhaps to a lesser degree) an understanding of parts with reference to the whole which they compose. Our conception of these notions, of the relation between something that is a whole and those things which are its parts, determines our view of the implications which knowledge about parts has for knowledge about the whole. In other words, it determines our interpretation of the results of any investigation into the nature of something which proceeds by considering its parts.

Much hangs, therefore, on our conception of the relations between a whole and its parts. This realization is troubling, and philosophically motivating, in view of the fact that different conceptions of these relations vie for acceptance, and even more so in view of the fact that none of the familiar competing conceptions seems entirely satisfactory. The profound observation that different conceptions are possible was apparently first made by Plato. In a famous passage of the *Theaetetus* he considers the general nature of complexes, where a complex (*sullabē*) is an entity which we take somehow to be made up or to arise out of simple entities described as its elements (Plato clearly thinks that exploring the notion of a complex is relevant to our attempts to answer the question 'What is knowledge?', to which the *Theaetetus* is devoted).[1] A paradigmatic example of a complex and its elements is provided by the case of a syllable and the letters associated with it, respectively – say the syllable SO and the letters S and O. Plato suggests that two contrasting conceptions of the complex are available – as something *identical* to the elements, or as something *distinct* from them. That is to say, what we refer to by 'SO' is either identical to, or distinct from, what we refer to by 'S and O'. It is important not to confuse this with the suggestion that the complex is either identical to or distinct from *each* of the elements - that what we refer to by 'SO' is either identical to, or distinct from, what we refer to by 'S', and what we refer to by 'O'. The claim that SO is identical to each of the letters S and O would seem to be patently absurd, for it implies that S and O are identical to one another. What Plato is suggesting may be perplexing or even plainly mistaken, but it is certainly not a non-starter of this sort.

It turns out that when we adopt the singular perspective (according to which we describe what we see as the complex SO rather than the

[1] See *Theaetetus* 202e-205e, and particularly 203c-205a.

elements S and O), we may intend two different sorts of entity, that is, either a complex identical to its elements, or a complex distinct from its elements. And so what at first glance might seem to be a two-tiered conceptual structure resolves itself, or perhaps broadens itself out, into a three-tiered one. Instead of merely considering elements and a complex, we should consider elements (many things), an identical complex (one thing), and a distinct complex (a further one thing). And this raises the question, whether SO the syllable is a complex of the first or second sort. The point is illustrated by the following diagram:



Figure 1

In the same passage Plato reserves the term 'whole' (i.e. '*holon*') for the first sort of complex, the identical one (thus, the passage leaves open the question whether the *complex* is identical to or distinct from its elements, but argues that a *whole* cannot be distinct from its parts and must be identical to them).[2] If we ignore this terminological decision, however, we may derive from his discussion the suggestion that two distinct conceptions of a whole are available, in principle, one according to which the whole is identical to its parts, and the other according to which it is distinct from them. And we are challenged to contemplate what might be described as three conceptual levels, that of parts, that of a whole which is identical to them, and that of a whole which is distinct from

[2] At 204a Socrates states that 'when a thing has parts, the whole is necessarily all the parts', and by the end of 205a he concludes a proof of this statement.

http://www.springer.com/978-1-4020-1660-8

Wholes, Sums and Unities
Meirav, A.
2003, VIII, 312 p., Hardcover
ISBN: 978-1-4020-1660-8