PLATO ON PARTS AND WHOLES: THE METAPHYSICS OF STRUCTURE. VERITY HARTE. Oxford: Clarendon Press, 2002, Pp. vii-311.

Imagine David Lewis, David Armstrong and Peter van Inwagen involved in a debate that starts with the hypothesis "If One is" and purports to deduce from it the conclusion "Then, chopped up by Being, it is many and unlimited in multitude". Verity Harte's groundbreaking and insightful new book takes us into a mind set from which we can see that contemporary metaphysicians, even though they of course would not *put* it that way, are very much up to the same thing as Plato in his discussion of parts and wholes in the Theaetetus, Sophist, Parmenides, Philebus, and Timaeus. In fact, as Harte argues in a work that impressively straddles both detailed scholarly debates in ancient philosophy as well as ongoing discussions in contemporary metaphysics, Plato is precisely concerned to take a stand on what we would now describe as van Inwagen's "Special Composition Question", the question "Under what conditions do many things compose one thing?" (van Inwagen (1990)), and to come out against David Lewis' "Axiom of Unrestricted Composition", according to which any plurality of objects whatsoever, no matter how disparate and dissimilar, composes a further object, their mereological sum (Lewis (1991)). Without ever leaving her firm grounding in the subtle and textually sensitive concerns of a historian of philosophy, Harte artfully takes us through some of the most difficult contexts in Plato's writings and constructs for us a coherent, believable and suspenseful reading of the text, which not only succeeds in portraying Plato as a serious contender in the debate concerning mereological composition, alongside current theorists, but which

¹ Peter van Inwagen, <u>Material Beings</u>, Cornell University Press, Ithaca, NY, 1990; David Lewis, <u>Parts of Classes</u>, Blackwell, Oxford, UK, 1991.

actually extracts from Plato's texts the outlines of a viable conception of composition that is in some ways *more* attractive than those offered by present-day writers.

Of course, *some* elements in Plato's account will inevitably strike contemporary readers as odd or alien, e.g., the details of the elaborate creation stories we find in the <u>Timaeus</u>, according to which the cosmos, created by a divine demiurge out of geometrical proportions and a mysterious entity called the "receptacle", is a living, ensouled animal whose body consists of fiery pyramids, airy octahedrons, watery icosahedrons and earthy cubes. But the presence of these elements which do not easily translate into our current vocabulary, so Harte argues forcefully, should not distract us from those features of Plato's views on composition which contemporary debates all but ignore at their own peril, in particular the all-important notion of *structure*.

In the early chapters of Harte's book (Chapters 1 and 2), we watch Plato first trying out and ultimately rejecting alternative models of composition, those he finds to be lacking precisely in that they do not make room for the notion of structure. The most prominent of these, a kind of "composition-as-identity" view, prevalent in sections of the Theaetetus, Parmenides and Sophist, whose ancient proponents turn out to be the commitment-shy Eleatics, is in fact surprisingly close to that of David Lewis; it is eventually found to be untenable by Plato because it fails to allow for wholes that are genuinely one despite the fact that they have many parts. Harte's central thesis, which she develops and defends in Chapters 3 and 4 of her book, is that Platonic wholes not only essentially have structure: they are (to be identified with) structures; their parts are, as Harte puts it, "structure-laden", i.e., their existence and identity is in some sense dependent on the whole of which they are part. We eventually see Plato's positive model of composition unfold in sections of the Parmenides, Sophist, Philebus and Timaeus, primarily in the form of a number of evocative

examples from language, music, meteorology, medicine, philosophy and cosmology.

From the diverse texts that make up the "positive undercurrent" in Plato's mereological writings, Harte assembles for us the following positive characterization of Platonic wholes. (i) Unity. To bring out the intimate relation into which the parts of a genuinely *unified* whole must enter, Plato invokes a rich and suggestive vocabulary consisting of terms like "weaving together", "blending", "mixing", "communing", "combining", "harmonizing" and "fitting together". (ii) Ontological Commitment. When parts of the right kind enter into this intimate relationship, the result is the *creation* of a new object, to which we were in no sense already committed previously; thus, contra Lewis, the Platonic conception of composition is ontologically loaded. (iii) Restricted Composition. Again in opposition to the ontologically innocent Eleatic model, composition for Plato is also restricted, in that not all pluralities of objects are capable of entering into the requisite relationship; only certain combinations of objects result in a genuinely unified whole. (iv) Structure/Content Dichotomy. A Platonic whole consists of two components, "structure" and "content". "Structure" tends to be characterized by Plato as something that is mathematically expressible (number, measure, ratio, proportion) and is aligned by Harte with "limit" in the Philebus and with the demiurge's geometrical proportions in the Timaeus. "Content" remains a bit murky, in that not much of a positive nature is said about it, other than that is that on which structure is imposed; Harte finds "content" manifested as the "unlimited" in the Philebus (what admits of the "more and less"; a domain delineated by pairs of opposing qualities such as hot and cold) and as the "receptacle" in the Timaeus, which she reads (in a move that makes us suspect creation of something out of nothing) simply as *space*, rather than as that which *fills* space. (v) Priority of Wholes Over Parts. Platonic wholes, on Harte's reading, are "prior" and more "basic" to Plato's

ontology than their parts, which are in some sense (whose precise nature remains unspecified) dependent on the wholes of which they are part. (vi) Normativity and Teleology. Platonic wholes have a normative and teleological character: they are described as "complete" or "perfect", "harmonious", "commensurate", "ordered" and "good"; their creation is governed by a cosmic teleology, which at least in the Timaeus is personified in the form of a divine agent who arranges everything for the best. (vii) Proper Objects of Science. Due to the mathematical nature of structure and the teleological cause underlying the creation of Platonic wholes, these wholes are inherently intelligible and are in fact the proper objects of science; all of Plato's examples of wholes are chosen from such domains as grammar, music, medicine, meteorology, philosophy and cosmology to bring home this point.

The modern-day reader will presumably view at least some aspects of Plato's account with suspicion. (vi) Normativity and Teleology. While it may be plausible to regard *some* wholes as having normative and teleological features (though not necessarily only "good" ones), the presence and precise nature of such features would presumably have to be defended, with much ingenuity, on a case-by-case basis. (Think of the extensive ongoing debates in ethics and the philosophy of mind concerning the place of value and consciousness within a naturalistic world-view.) (vii) Proper Objects of Science. Again, without a priori assurance that we live in a world suffused with intelligibility, there is no guarantee that all of these wholes will be accessible or, for that matter, of any interest to a rigorous discipline. (i) Unity. The rich and suggestive body of metaphors by means of which Plato *describes* the composition-relation, in conjunction with his often remarkably careful development of particular *cases* in which composition takes place, only goes *part* of the way towards a fully general answer to van Inwagen's Special Composition Question. (v) Priority of Wholes Over

<u>Parts</u>. This deeply puzzling feature (reminiscent of Aristotle's "*Homonymy Principle*", according to which a severed hand, say, is a hand "in name alone") is most straightforwardly interpreted as what we might term "*Reverse Mereological Essentialism*" (RME): no single object can ever survive *becoming* or *ceasing* to be part of a whole. However comfortably this otherwise highly counterintuitive thesis may fit with certain teleological world views, (RME) should be divorced from the "structure-laden" nature of *wholes* (feature (iv)), from which it is in any case conceptually independent: feature (iv) concerns the mereological profile of *wholes*; feature (v) attributes a *de re* modal property to the *parts* of a whole.²

This brings us to what I take to be in any case the core of Plato's contribution to mereology proper: features (ii), (iii) and (iv), "Ontological Commitment", "Restricted Composition" and the "Structure/Content Dichotomy". Since the first two are easily recognizable from contemporary debates, I focus on the remaining feature. (iv) Structure/Content Dichotomy. As I think even the brief statement of (iv) above makes clear, Plato's conception of composition, contra Harte, cannot in fact be understood as one which *identifies* wholes with structures, unless we are simply using the term "structure" in two distinct ways. (And there is some indication that this is what is sometimes going on in Harte's text, when she speaks for instance of "the structure of a structure".) For structure, in the sense of what is mathematically expressible (number, measure, ratio, proportion), cannot be all there is to a whole, otherwise the bathwater Harte considers as an example of a perfect Phileban mixture of hot and cold water will literally turn out to be a mathematical ratio, such as 2:1. Even though Harte is aware of the dangers of an overly Pythagorean universe, she nevertheless

² For a modern-day defender of a similar principle, without the teleology, see Kit Fine, "Compounds and Aggregates", <u>Nous</u>, Vol.28 (1994), pp.137-158.

displays sympathies towards both of the two incompatible characterizations of Platonic wholes: the 'wholes as *composed* of structure' model and the 'wholes as *identical* to structures' model. Harte's main motivation for identifying wholes with structures is the Aristotelian regress from Met. Z.17; but Aristotle there warns us only that genuinely unified wholes (as opposed to "mere" "heaps") cannot be viewed as being composed exclusively of things *of the same ontological kind* ("elements" or "matter"), not that the "something else" that accounts for their unity ("principle", "nature", "substance", i.e., "form") cannot be *part* of the compound; for Aristotle himself takes both the form and the matter to be *part* of the compound, according to a single sense of 'parthood'.

In the end, Harte's Plato comes out closer to van Inwagen than to Lewis, but still different from both. Most importantly, though, from the point of view of those interested in the current debates, all three are involved very much in the same ball game; in fact, Plato's structure-based theory, minus the cosmic teleology, may very well have an edge over modern alternatives. From the point of view of those, on the other hand, who have a stake in the interpretive questions, it will be a relief to see that Plato's relevance to modern concerns does not have to come at the price of straining the text or ignoring the relevant scholarly debates. In accomplishing both of these tasks, Harte has created something very rare, very difficult and very exciting: a highly original book that should speak just as much to the non-historian as to the historian of philosophy.

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