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A Sharp Eye for Kinds: Collection and Division in Plato's Late Dialogues

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A SHARP EYE FOR KINDS: PLATO ON COLLECTION AND DIVISION

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1. Introduction

WHEN one considers the volume of scholarship on Plato, it is remarkable that relatively little has been written about the so-called method of collection and division.[1] It is remarkable given the importance Plato assigns to collection and division in his philosophy. At *Phdr.* 266 B, for example, Socrates tells Phaedrus that he is a lover of collection and division and refers to its practitioners as 'dialecticians'. Again, at *Soph.* 253 D the Eleatic Stranger describes the dialectician as one who is able to 'divide things according to kinds'

[1] The main papers include J. R. Trevaskis, 'Division and its Relation to Dialectic and Ontology in Plato' ['Dialectic'], *Phronesis*, 12 (1967), 118–29; J. M. E. Moravcsik, 'The Anatomy of Plato's Divisions' ['Anatomy'], in E. N. Lee, A. P. D. Mourelatos, and R. M. Rorty (eds.), *Exegesis and Argument* (*Phronesis*, suppl. 1; New York, 1973), 324–48; S. M. Cohen, 'Plato's Method of Division' ['Method of Division'], in J. M. E. Moravcsik (ed.), *Patterns in Plato's Thought: Papers Arising out of the 1971 West Coast Greek Philosophy Conference* (Dordrecht, 1973), 181–91; M. V. Wedin, 'Collection and Division in the *Phaedrus* and *Statesman*' ['Collection and Division'], *Revue de philosophie ancienne*, 5 (1987), 207–33; M. Deslauriers, 'Plato and Aristotle on Division and Definition' ['Plato and Aristotle'], *Ancient Philosophy*, 10 (1991), 203–19; J. L. Ackrill, *Essays on Plato and Aristotle* [*Essays*] (Oxford, 1997), ch. 6; S. Menn, 'Collecting the Letters', *Phronesis*, 43 (1998), 291–305; L. Brown, 'Definition and Division in Plato's *Sophist*' ['Definition and Division'], in D. Charles (ed.), *Definition in Greek Philosophy* (Oxford, 2010), 151–71; M. L. Gill, 'Division and Definition in Plato's *Sophist* and *Statesman*' ['Division and Definition'], in Charles (ed.), *Definition in Greek Philosophy*, 172–99; K. M. Sayre, *Metaphysics and Method in Plato's* Statesman (Cambridge, 2006). See also A. E. Taylor (trans. and intr.), *Plato: The* Sophist *and the* Statesman [*Sophist* and *Statesman*] (London, 1961); F. M. Cornford (trans. and comm.), *Plato's Theory of Knowledge: The* Theaetetus *and the* Sophist *of Plato* (London, 1935; repr. New York, 1957); R. Hackforth, *Plato's Examination of Pleasure: A Translation of the* Philebus, *with Introduction and Commentary* [*Examination*] (London, 1958); J. Gosling (trans. and comm.), *Plato:* Philebus (Oxford, 1975); D. Frede (trans. and comm.), *Plato:* Philebus [*Philebus*] (Indianapolis, 1993).

(τὸ κατὰ γένη διαίρεσθαι, 253 D 1–3) and adequately discriminate a single form 'set out over a lot of other things, each of which stands separate from the others'. Even the more mundane applications of collection and division are said to be undertaken for the sake of making us 'more dialectical' (διαλεκτικωτέροις, *Polit.* 285 D 6), so that we may become better at 'discovering how to display in an account the things that are' (287 A 3–4; cf. 286 D–E). The little attention that has been paid to collection and division has tended to focus on the debate concerning its proper objects. Do collection and division operate on Forms or classes? Among those who hold that collection and division operate on classes, some take them to operate on classes of Forms,[2] while others take them to operate on classes of particulars.[3] By contrast, Moravcsik ('Anatomy', 339–48) argues that collection and division operate on Forms themselves, which he takes to be structured wholes that have other Forms as parts and/or are parts of other Forms. On this reading, the relation between the terms in a division tree is mereological rather than extensional in nature (they are related as part to whole rather than by class inclusion).

No clear consensus has emerged in this debate. And in this paper I shall not attempt to defend any particular reading. Instead I shall concentrate on two methodological questions. First, what place does the method of collection and division occupy in Plato's account of philosophical enquiry? Second, do collection and division in fact constitute a formal method at all or are they simply informal techniques that the philosopher has in her toolkit for accomplishing different philosophical tasks? As to the first question, I shall argue that collection and division are useful for achieving two distinct goals—generating real definitions and discovering the basic natural kinds of a given domain of knowledge—both of which occupy a *preliminary* stage of philosophical enquiry. As to the second question, I shall argue that the evidence for seeing collection and division as a formal method is weak. Although Plato calls the procedure a *technē* and a *methodos*, he makes no real attempt to formalize it in any way. For Plato, collection and division do not constitute an algorithmic process that can be learnt from a rule book. Instead the ability to collect and divide properly is a skill that good dialecticians must acquire through the kind of hands-on training illustrated by

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[2] Moravcsik, 'Anatomy', 334, calls this the 'clean' model.

[3] Cohen, 'Method of Division', 182, calls this the 'superclean' model. Both he and Wedin ('Collection and Division') defend this version.

the *Sophist* and *Statesman*. Whereas Aristotle insists on formal rules for making proper divisions, Plato seems to emphasize the need to *recognize* where the natural joints of the world are. In this sense, Plato's *Sophist* and *Statesman* and Aristotle's *Topics* and *Analytics* present two very different pictures of collection and division.

Before proceeding I need to say a preliminary word about Plato's terminology. (I shall return to this at the end of the paper.) In the context of collection and division, it is possible to render *eidos* and *genos* consistently in a typological manner as referring simply to a certain *kind* of thing without resorting to a metaphysics of separately existing Forms. This is easy for *genos*, which is typically used to pick out a wider kind that is divisible into subkinds (e.g. *Soph*. 264 D 10–E 1).[4] *Eidos* is more tricky. While *eidos* has traditionally been taken to indicate a separately existing Form (e.g. Beauty Itself), Plato's use of the word can be ambiguous.[5] In the *Phaedo*, for example, *eidos* is used in at least three different ways: (1) in a strong metaphysical sense to refer to separately existing Forms (e.g. 103 E 3); (2) in a typological sense to pick out a certain kind or type of thing (e.g. 98 A 2, 100 B 4); and (3) in an ordinary, pre-philosophical sense to refer to the shape or figure of a thing (e.g. 87 A 2, 92 B 5). In the context of collection and division, *eidos* seems to take on its typological meaning. Specifically, it is used either to designate a wider kind that results from a collection (e.g. *Phdr.* 266 A 3)—in which case it is used interchangeably with *genos* (e.g. *Phdr.* 271 B 2, D 1–2; *Soph*. 222 D 3–6, 227 D 13, 228 E 2)—or to refer to the subkinds that result from dividing a wider kind into different varieties (e.g. *Soph*. 219 A 8). For example, in the *Phaedrus* both madness (the wider kind) and erotic madness (the subkind) are called *eidē*.[6]

At *Phdr.* 265 D 3–266 B 1 Socrates introduces us to collection and division as tools for enquiring into a subject:

soc. The first part consists in seeing together the many scattered things and drawing them into a single kind so that by defining each thing we can make clear whatever subject we may wish to teach. Just as in our speech about love—whether or not its definition was correct, it at least allowed the speech to proceed clearly and consistently with itself.

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[4] See n. 32 on the danger of translating γένος as 'genus'.

[5] Trevaskis, 'Dialectic', 124, makes essentially the same point.

[6] We might put the point by saying that εἶδος can function as a genus or a species depending on the context. However, I want to resist this language as much as possible (n. 32).

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PHAEDR. And what is the other thing you are talking about, Socrates?
SOC. This, in turn, consists in the ability to cut things up according to their
    kinds along natural joints and to try not to break any part into pieces as
    a bad butcher might do.   (265 D 3–E 3, my translation)

Socrates illustrates this procedure by referring back to their treat-
ment of love as a form of erotic madness:

In just this way, our two speeches placed all mental derangements into one
common kind. Then, just as each single body has parts that naturally come
in pairs of the same name (one of them being called the right-hand and
the other the left-hand one), so the speeches, having considered unsound-
ness of mind to be one natural kind [πεφυκὸς εἶδος] within us, proceeded
to cut it up—the first speech cut its left-hand part, and continued to cut
until it discovered among these parts a sort of love that can be called 'left-
handed', which it correctly denounced; the second speech, in turn, led us to
the right-hand part of madness, discovered a love that shares its name with
the other but is actually divine, set it out before us, and praised it as the
cause of our greatest goods. (265 E 3–266 B 1, trans. Nehamas–Woodruff,
modified)[7]

Socrates refers to these twin procedures together as collection
(*sunagōgē*) and division (*diairesis*). The former involves grouping
a plurality of things into a unified kind on the basis of common
features, while the latter involves partitioning a wider kind into
subkinds on the basis of certain differences (cf. *Polit*. 285 A–B). In
the *Sophist* we learn that the final definition is formed by 'weaving
together' (*sumplokē*) all of those divisions that led to the object in
question, which will be the elements of its essence (221 A 7–C 3; cf.
Arist. *PA* 1. 3, 643^{b}13–16).
   Some commentators have understood Platonic collection and di-
vision as consecutive stages of a linear process.[8] In the first stage
we collect particulars into species and/or species into genera until
finally arriving at the *summum genus* (the highest kind). This is then
followed by division, which begins from the *summum genus* reached
by collection and divides it back down into increasingly narrow ge-
nera and species until finally arriving at the *infima species* (the low-
est kinds). On this picture, the collection stage precedes the division
stage and ceases to operate once division has begun:

   [7] Unless otherwise noted, all translations are from those collected in J. Cooper
(ed.), *The Complete Works of Plato* (Indianapolis, 1997).
   [8] e.g. Cornford, *Theory of Knowledge*, 170; Hackforth, *Examination*, 26 (but see
'Additional Notes', 142–3).

Division should be preceded by a Collection (*sunagōgē*) or survey of the 'widely scattered' terms (species) which are to be brought together under a single (generic) Form. The object of such a review is to divine the generic Form which is to stand at the head of the subsequent Division. (Cornford, *Theory of Knoweldge*, 170)

A closer look at the implementation of the method in both the *Sophist* and *Statesman* shows us that, for Plato, collection and division are not separate steps carried out independently and serially. They are joint procedures that operate in conjunction with one another at every point along the way. For collection is often said to follow division. For example, at *Soph.* 219 A–B the Eleatic Stranger divides *technē* into two kinds, one of which is said to contain three things: 'agriculture and all kinds of care of any living beings, that which has to do with things which are put together or moulded (utensils we call them), as well as the art of imitation'. These many scattered things are then 'collectively brought under one head' (συγ-κεφαλαιωσάμενοι) and 'called by a single name', viz. productive arts. This is a typical move. The Eleatic Stranger will first make a bifurcated division of some wider kind, note that each part contains many things, and then follow it with an act of collection aimed at securing the original bifurcation. Figure 1 schematizes this process.

Step 1. Division into two parts, each of which is said to contain many things:
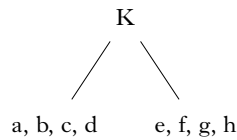
Step 2. Collection then forms these into two unified kinds on the basis of common features:
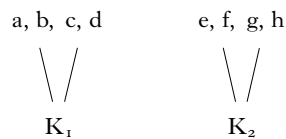

Fɪɢ. 1. *Dichotomous division*

For example, at *Soph.* 222 B land-hunting (K) is said to contain 'many kinds with many names' (a–h). These do not constitute multiple *divisions* of land-hunting; land-hunting is divided into exactly two kinds (221 E–222 B). This trick is achieved by an act of collec-

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tion. Some varieties of land-hunting are collected into the hunt-
ing of wild things (K₁), while others are collected into the hunting
of tame things (K₂). Next the hunting of tame animals (a new K)
is said to contain piracy, enslavement, tyranny, along with every-
thing else to do with war, as well as legal oratory, political oratory,
and conversation (222 C). These several types of tame hunting are
again collected in such a way that they form two main subkinds. Pir-
acy, enslavement, tyranny, and everything else to do with war are
collected into hunting by force (K₁), while legal oratory, political
oratory, and conversation are collected into hunting by persuasion
(K₂). Hunting by force and hunting by persuasion constitute the
two subkinds of hunting tame things.

2. The search for definition

Collection and division function, in the first place, as tools in the
search for definitions: they are used 'to define [ὁριζόμενος] each
thing' (*Phdr.* 265 D 4), to 'hunt down the definition' (*Polit.* 285 D
8–9) in order to 'give a clear account of the essence [τί ἐστιν]'
(*Soph.* 218 C 1). As we shall see, when done properly collection
and division help to ensure that the terms of our definition pick
out natural kinds and that our definitions meet certain standards of
completeness.

It is clear from the text that Plato's interest in collection and divi-
sion is bound up with a concern that our definitions reflect natural
kinds.[9] The language of naturalness is explicit throughout the de-
scription of collection and division in the *Phaedrus* passage. Socra-
tes tells us that we must always be careful to divide 'along natural
joints' (κατ' ἄρθρα ᾗ πέφυκεν), that the parts of reality 'naturally'

[9] Deslauriers, 'Plato and Aristotle', 203; ead., *Aristotle on Definition* (Leiden,
2007), ch. 1. See also Moravcsik, 'Anatomy'; Wedin, 'Collection and Division'.
The fact that in the *Sophist* division produces seven different (and incompatible)
accounts of the sophist may be seen as problematic for this reading. There are two
responses available here. One might deny that the first six 'definitions' are genuine
definitions of the sophist's real essence but instead must be regarded merely as
appearances. Thus only the seventh division actually manages to cut nature at the
joints. For this reading see N. Notomi, *The Unity of Plato's* Sophist: *Between the
Sophist and the Philosopher* [*Unity*] (Cambridge, 2001), e.g. 80. Alternatively, one
might deny that any of the seven accounts qualifies as a genuine definition, since
sophistry/sophist does not pick out a natural kind. This reading is held by Brown,
'Definition and Division', e.g. 153.

(πέφυκε) come in pairs of the same name, and that unsoundness of mind is a 'natural kind' (πεφυκὸς εἶδος; cf. 266 B). Indeed, it is hard not to read the *Phaedrus*'s butcher metaphor as expressing a concern for natural kinds: nature contains different kinds separated by objective, mind-independent boundaries; being a 'bad butcher' consists in transgressing those real boundaries. Talk of naturalness is present outside the *Phaedrus* as well. For example, *Polit.* 265 B 9 speaks of footed herd animals as being 'naturally' (φύσει) divisible into two kinds. And the Stranger's warning to Young Socrates[10] at *Polit.* 262 A 8–B 2 that our divisions must be careful to yield *merē* that at the same time correspond to *eidē* positively invites the idea that collection and division should be guided by a concern for natural kinds (cf. 263 B). An *eidos*, it seems, is a part of some wider kind that cuts nature at its joints.

It is less clear how Plato thinks collection and division are supposed to produce definitions that reflect natural kinds rather than arbitrarily designated classes.[11] The comparison with a butcher in the description from the *Phaedrus* suggests that it has something to do with dichotomous division. Since the parts of reality 'naturally come in pairs of the same name, one of them being called the right-hand and the other the left-hand one', dividing kinds into two equal parts will help us hit upon the natural joints.[12] This is further suggested by the *Statesman*, where the Eleatic Stranger tells Young Socrates that when we 'go along cutting through the middle of things' we will be more likely 'to hit upon real kinds' (262 B 5–8). However, later in the *Statesman* the Stranger introduces a non-dichotomous technique precisely because the kind under investigation cannot be cut in two: 'So do you recognize that it is difficult to cut them into *two* parts? . . . Instead let us attempt to divide them

[10] 'Young Socrates' is not the famous character who takes the lead role in the so-called Socratic dialogues but his namesake.

[11] I return to this at the end of the paper.

[12] *Phdr.* 265–6 might be seen as evidence that Plato was not committed to dichotomous division even in this dialogue. Socrates begins by dividing madness dichotomously into a kind produced by human illness and a kind produced by divine inspiration, and then immediately divides the latter into four kinds individuated by the god that inspires it. However, I believe this division is still dichotomous in spirit. It may be that Socrates has simply bypassed two intermediate kinds—one that includes the madness of the prophets and the madness of the mystics, the other the madness of the poets and the madness of the lovers—which would preserve the dichotomous nature of the whole division. The fact that Socrates goes on to say that we should divide dichotomously *because* the parts of reality naturally come in pairs supports this dichotomous reading of the example.

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limb by limb [κατὰ μέλη], like a sacrificial animal, since we cannot do it into two. For we must always cut into the nearest number so far as we can' (*Polit.* 287 B 10–C 5; cf. *Phileb.* 16 D 3–4). Unlike dichotomous division, division by limbs requires cutting a kind along multiple axes of division.

Although Plato does not use dichotomy exclusively, it would be a mistake to think that he abandoned it in favour of the non-dichotomous technique of division by limbs.[13] All the divisions in the *Sophist* are carried out dichotomously. And in the *Statesman* division by limbs is introduced only as a supplement to, not a replacement for, dichotomy, which continues to play a major role in the discussion even after the introduction of that non-dichotomous technique. Indeed, dichotomous division is used as late as 306 C in order to complete the definition of statesmanship. Further evidence for the importance of dichotomy is obtained from Aristotle. In *PA* 1. 2–3 Aristotle's attack on Platonic division is focused almost exclusively on its use of this bifurcated technique. All of this suggests that dichotomy was a central (if not the only) aspect of Plato's use of division. And whatever his motivation for using dichotomy turns out to be, he is explicit that it is the most effective way (cf. *Polit.* 262 B 6 ἀσφαλέστερον) of finding where the natural joints are.

Plato also sees the process of collection and division as a mechanism for achieving two further definitional goals. First, our definitions should be complete in the sense that they do not leave out any parts of the essence.[14] Young Socrates' error at *Polit.* 262 B–C illustrates the importance of proper division here. Having anticipated that statesmanship has to do with the care of human beings, Socrates rushed the argument by immediately separating humans off from the rest of the animals. The Stranger points out a number of mistakes with their division. First, it has left implicit the distinction between wild and tame, the latter of which must be included in the final account of statesmanship (264 A–B). Second, by dividing living things straightaway into humans and non-humans Socrates has skipped over at least two other important divisions: aquatic/terrestrial and winged/footed (264 D–E). This is important, the Stranger tells us, since 'we must look for statesmanship among the things that go on foot'. In both cases the lesson to Young Socra-

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[13] For a contrasting view see Gill, 'Division and Definition'.
[14] See Arist. *Post. An.* 2. 5, 91^{b}26–8; 2. 13, 96^{b}36–97^{b}6.

tes is about making sure our divisions do not bypass any important intermediate kinds.[15] By doing so we leave out elements of the essence so that our account will have no chance of yielding a proper grasp of the nature of the object under investigation.

Contrast all of this with *Polit.* 265 A, where the Stranger actually encourages Young Socrates to take a 'shorter route' that bypasses two divisions. Instead of dividing footed animals into horned/hornless and then hornless animals into interbreeding/non-interbreeding ('the longer route'), Socrates is given the option of dividing footed animals straightaway into four-footed and two-footed. While this division also involves 'dividing a small part off against a large one', which Socrates was warned against at 262 A, the move is allowed here (presumably) because hornless and non-interbreeding are not parts of the essence of statesmanship and so this division does not bypass any *important* intermediate kinds.

The other constraint on definitions is that the final account must identify that one feature that belongs to all and only the members of the kind in question, which is specified by the last term in the series. The Stranger makes this point at *Polit.* 267 C 5–D 1:

E.S. Is it really the case, Socrates, that we have actually done this, as you have just said?
SOC. Done what?
E.S. Given a completely adequate response to the matter we raised. Or is our search lacking especially just in this respect, that our account of the matter has been stated in a certain way, but has not been finished off completely [τελέως]? (trans. Rowe, modified)

The Stranger's worry here is that their account of the statesman has failed to identify that one feature that applies to all and only statesmen. For there are many other professions that can equally claim to have expert knowledge of the collective rearing of human beings. By identifying a common feature their account will be about all those things that share that feature in common:

E.S. So how will our definition of the king appear to us right and complete,[16] when we posit him as sole herdsman and rearer of the

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[15] Taylor*, Sophist* and *Statesman*, 22, offers a similar diagnosis of Young Socrates' error. See also H. Scodel, *Diaeresis and Myth in Plato's* Statesman (Göttingen, 1987), 61–2.
[16] The Greek word for complete is ἀκέραιος, which can also mean pure or un-

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human herd, singling him out on his own from among tens of thousands
of others who dispute the title with him?

s o c. There's no way in which it can.

e.s. Then our fears a little earlier were right, when we suspected that we
should prove in fact to be describing some kingly figure, but not yet to
have accurately finished the statesman off, until we remove those who
crowd round him, pretending to share his herding function with him
and, having separated him from them, we reveal him on his own uncon-
taminated with anyone else?   (268 c 5–10, trans. Rowe)

The Stranger reiterates the point at *Polit.* 281 c 7–d 3, this time us-
ing the model of weaving:

So will our account of that part of the art of weaving that we selected be
sufficiently definite [διωρισμένος], if we proceed to set it down as finest and
greatest of all those sorts of care that exist in relation to woollen clothing?
Or would we be saying something true, but not clear or complete [τέλεον],
until such time as we remove all of these too from around it?

This requirement on definitions can be traced back to the
Theaetetus. In discussing a third meaning for *logos*, Socrates says
that the ability to give an account (*logos*) of a thing requires identi-
fying some mark by which that thing differs from everything else:

If you get a hold of the difference that distinguishes a thing from every-
thing else, then (so some people say) you will have got an account of it; on
the other hand, so long as it is some common feature that you grasp, your
account will be about all those things which have this in common. (208 d
5–9)

Although the results of the *Theaetetus* are generally taken to be
aporetic, it is clear that Plato accepts this requirement on defini-
tions in both the *Sophist* and the *Statesman*.

Collection and (more specifically) division provide an effective
tool for achieving this goal by isolating the single feature that dif-
ferentiates the object of definition from everything else. *Polit.* 303 d
4–304 a 4 makes this point rather successfully by drawing an ana-
logy with the process of refining metals:

e.s. Yes, but there is something else remaining that is still more difficult
than this, by reason of its being both more akin to the kingly class, and

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mixed. Compare ἀκήρατον (unalloyed) in the analogy with refining gold at 303 e 4
(translated below).

closer to it, and harder to understand; and we seem to me to be in a situation similar to that of those who refine [καθαίρουσι] gold.

s o c . How so?

e . s . I imagine that these craftsmen also begin by separating out earth, and stones, and many different things; and after these, there remain commingled with the gold those things that are akin to it, precious things and only removable with the use of fire: copper, silver, and sometimes adamant, the removal of which through repeated smelting and testing leaves the unalloyed [ἀκήρατον] gold that people talk about there for us to see, itself alone by itself [αὐτὸ μόνον ἐφ' ἑαυτό].

s o c . Yes, they certainly do say these things happen in this way.

e . s . Well, it seems that in the same way we have now separated off those things that are different from the expert knowledge of statesmanship, and those that are alien and hostile to it, and that there remain those that are precious and related to it. Among these, I think, are generalship, the art of the judge, and that part of rhetoric which in partnership with kingship persuades people of what is just and so helps in steering through the business of cities. As for these, in what way will one most easily portion them off and show, stripped and alone by himself, that person we are looking for?   (trans. Rowe)

The language of refining is used throughout the dialogue in connection with division. By removing what is common, division allows us to 'portion off' (ἀπομερίζειν, 280 b 3), 'separate out' (ἀποχωρίζειν, 291 a 4), and 'take away' (ἀφαιρεῖν, 291 c 5) all those things that surround the object of our search so that we can exhibit it alone and by itself in its 'purified' and 'unalloyed' form (καθαρόν, 268 c 10).

3. The dialectical process

While the *Sophist* and *Statesman* make it clear that collection and division are tools used in the search for definitions, the *Phaedrus* offers a clue about their place in philosophical enquiry (at what stage of an enquiry they are operative). At *Phdr.* 265 d–266 a Socrates tells us that collection and division are used for defining (ὁριζόμενος) things and that the purpose of having a definition is to make clear (δῆλον) the subject of discourse, which allows the discussion to 'proceed clearly and consistently with itself'. Socrates' point reiterates an earlier thought from *Phdr.* 237 b 7–d 3, where he had invoked a familiar Platonic norm of enquiry:

If you wish to reach a good decision on any subject, my boy, there is only one way to begin—you must know what the decision is about, or else you are bound to miss your target altogether. Ordinary people cannot see that they do not know the essence [τὴν οὐσίαν] of a particular subject, so they proceed as if they did. And because they do not work out an agreement [sc. about what their subject is] at the start of the enquiry, they end up as you would expect—in conflict with themselves and each other. Now you and I better not let this happen to us, since we criticize it in the others. Because you and I are about to discuss whether one should enter into friendship with a lover or a non-lover, we should agree on a definition [ὅρον] of what love is and what power it has. (trans. Nehamas–Woodruff, modified)

Socrates' point here is that any investigation into a subject ought to begin from knowledge of its definition, which helps fix the target of enquiry and avoid disagreements. This methodological norm is familiar from the *Meno*, which opens with Meno asking Socrates whether or not virtue can be taught. Socrates replies that in order to settle this question they must first define what it is: 'If I do not know what something is [τί ἐστι], how could I know what it is like? Or do you think that someone who does not know at all who Meno is could know whether he is good-looking or rich or well-born, or the opposite of these?' (78 β 1–6) Later in that dialogue the two agree to give up this ideal and opt instead for the method of hypothesis. This allows them to investigate what virtue is like (ποῖον) in the absence of a definition of what virtue is (τί ἐστιν). Yet Socrates treats this as second best. His preferred approach to enquiry remains that of starting from a definition:

If I were directing you, Meno, and not only myself, we would not have investigated whether virtue is teachable or not before we had investigated what virtue is. But because you do not even attempt to rule yourself, in order that you may be free, but you try to rule me and do so, I will agree with you—for what can I do? So we must, it appears, enquire into the qualities of something the nature of which we do not yet know. However, please relax your rule a little bit for me and agree to investigate whether it is teachable or not by means of a hypothesis. (86 D 3–E 3, trans. Grube)

In the *Phaedrus* Socrates introduces collection and division precisely as a way to meet this methodological ideal. With this procedure in hand, the discussion need not proceed *as if* they know the essence of their object; it is a way of arriving at an account of that essence which can then be used as a proper starting-point.[17]

[17] This way of seeing the relation between the so-called method of hypothesis and

On this reading, collection and division form part of a preliminary stage of philosophical enquiry aimed at generating a definition of the subject to be investigated.[18]

This interpretation is reinforced by Plato's use of the hunting metaphor in connection with collection and division. Throughout the *Sophist* and *Statesman* collection and division are constantly described using very explicit hunting language. Indeed, *Sophist* 218 c–d actually refers to the process as a method of hunting and then illustrates it using the example of fishing. Now, in the *Euthy-demus* hunting is used as a model for the kind of *technē* that discovers something out there in the world (it does not make its object) but that, once it captures it, hands it over to another *technē* that knows how to use it:

Well, this art is a kind of man-hunting. . . . No art of actual hunting, he said, extends any further than pursuing and capturing: whenever the hunters catch what they are pursuing they are incapable of using it, but they and the fishermen hand over their prey to the cooks. And again, geometers and astronomers and calculators (who are hunters, too, in a way, for none of these make their diagrams; they simply discover those which already exist), since they themselves have no idea of how to use their prey but only how to hunt it, hand over the task of using their discoveries to the dialecticians—at least those of them who are not completely senseless. (290 b 5–c 6, trans. Sprague)

It is unclear how much work the hunting metaphor is meant to do in Plato's account of collection and division. But if we take the meta-phor seriously (as I think we should), then certain things suggest themselves about the procedure and its place in dialectical enquiry.

First, like hunting, collection and division do not involve *creating* kinds. What are being hunted are real kinds that exist out there in the world independently of us. In other words, we are after *natural* kinds delineated by real, mind-independent boundaries (see above). Second, and more importantly, collection and division do not in-

collection and division suggests that the latter makes the former otiose. I shall not pursue this suggestion here except to note that the method of hypothesis is absent from those dialogues that avail themselves of collection and division.

[18] Gill, 'Division and Definition', 173, 197–8, also takes dichotomous division to be a 'preliminary strategy' for arriving at definitions. However, she thinks the method is capable of generating adequate definitions only for 'the simplest and most uncontroversial cases' (e.g. angling, weaving) and not as a method for defining 'more complex kinds' (e.g. sophistry, statesmanship). By contrast, I see collection and di-vision as the proper mechanism for generating adequate definitions in all cases.

clude knowledge of how to use what is caught but only knowledge of how to capture it. Collection and division are tools for 'hunting' real essences, which are 'captured' in a definition. Once the object has been captured and tied down with a definition, it is then handed over to something else that knows how to use that account in further enquiry. Now Plato consistently identifies collection and division with dialectic and calls its practioners dialecticians. And presumably the dialectician is the one who knows how to use definitions in philosophical enquiry. So unlike hunting, which hands its prey over to some other *technē*, it must be the same person who knows both how to 'hunt down' an essence and how to use the account of it in enquiry. But the hunting metaphor still suggests that collection and division *by themselves* cannot be the whole of dialectic, since they are not self-sufficient as a method of philosophical enquiry (if, indeed, they constitute a method). If this is right, then collection and division do not exhaust the process of dialectic (*contra* Ryle); rather, they form part of a preliminary stage of dialectical enquiry.[19]

4. The discovery of kinds

According to Moravcsik, Plato sees collection and division as a method for arriving at definitions of natural kinds. But, he argues, Plato offers no formal procedure for discovering those natural kinds in the first place:

It is crucial for understanding the Method of Division that Plato gives no mechanical procedure for finding natural kinds. Plato does not think that there are any such procedures. He is not giving a discovery procedure, he is explicating the ontological configurations that obtain once we have discovered natural kinds. He does not tell us *how* to arrive at them; he tells us what things look like *when* we have arrived at them.[20]

It is hard to disagree with this, if we limit ourselves to the *Sophist* and *Statesman*. In those dialogues the Stranger uses collection and division exclusively in relation to the search for definition. And the resulting divisions all appear to presuppose the ontological configurations (or 'joints') of the domains being divided. However, I be-

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[19] See G. Ryle, 'Plato's *Parmenides* II', *Mind*, 48 (1939), 302–25. Ryle took Plato to hold that collection and division are *exhaustive* of the dialectical process and criticizes him on that point. For a response see Ackrill, *Essays*, ch. 6, 'In Defence of Platonic Division'.   [20] Moravcsik, 'Anatomy', 344.

lieve we find hints of a discovery procedure in the *Philebus* aimed at identifying the basic kinds of a given domain, which is independent of the attempt to generate definitions. And I believe we are given a telescoped version of this procedure in the story of Theuth.[21] If I am right, then collection and division are not only useful as tools for constructing definitions of natural kinds but also for uncovering what natural kinds exist in the first place.[22]

At *Philebus* 16 c–17 a Socrates refers to collection and division as a gift from the gods, which he associates with enquiry (ζητεῖν, 16 D 2; σκοπεῖν, 16 E 3) aimed at establishing certain unities.[23] The way he illustrates the process—using the sciences of music and grammar— suggests that his concern here is with the overall constitution and structure of a scientific domain[24] rather than the formulation of specific definitions. Now in this passage Socrates makes reference to two paths: a path 'from the one to the many' and a reverse path 'from the many to the one'. There is a temptation to identify these with collection and division, respectively. However, if collection and division are not autonomous procedures but operate in conjunction with one another at every step along the way (as argued above), then this reading should be resisted. Instead, I propose that we take these two paths to be different kinds of enquiry with different overall goals.

The path from 'the one to the many' refers straightforwardly to the sort of enquiry pursued in the *Sophist* and *Statesman*, where the Stranger uses collection and division to hunt down the essence of a kind, the result of which is a definition. The process begins from some wider kind (e.g. expertise) and partitions it into increasingly narrow subkinds, until it arrives at a kind that includes all and only the object of our search (e.g. angling). The reverse path 'from the many to the one', I propose, refers to another kind of enquiry aimed at setting up a scientific discipline by discovering and organizing the basic kinds that make up its domain. The result of this process is not a definition but a complete classification of those kinds that ex-

[21] For a similar reading of the Theuth example see V. Harte, *Plato on Parts and Wholes: The Metaphysics of Structure* [*Parts and Wholes*] (Oxford, 2002), 205–6; K. Sayre, *Plato's Late Ontology* [*Ontology*] (Las Vegas, 2005), 131–2.

[22] This distinction seems to be implicit in Cornford, *Theory of Knowledge*, 171. See also Hackforth, *Examination*, 26.

[23] Traditionally scholars have taken this 'god-given' method to be collection and division (e.g. Frede, *Philebus*, xx and xxv).

[24] Harte, *Parts and Wholes*, 205.

hibits their interrelations.[25] What I want to suggest is that collection
and division also have a role to play in this kind of enquiry.

At the end of our passage Socrates mentions an error made by
those who go 'straight from the one to the unlimited and omit the
intermediates' (16 D–17 A). This is an error committed during the
path from the one to the many (where the aim is definition) and
is reminiscent of the error Young Socrates makes at *Polit.* 262 B–C,
where he divided collective rearing into the rearing of humans and
the rearing of all other animals (see above). In the *Philebus* Socra-
tes is interested in exposing the reverse error, where one 'starts out
from the unlimited' and moves straightaway to 'the one', once again
passing over some important intermediate kinds:

Just as someone who has got hold of some unity or other should not, as
we were saying, immediately look for the unlimited substance[26] but first
look for some number, so the same holds for the reverse case. For if he is
forced to start out with the unlimited, then he should not head straight for
the one, but should in each case grasp some number that possesses some
plurality, and from those finally reach the one. (*Phileb.* 18 A 7–B 3, trans.,
Frede, modified)

The reference to a 'reverse' process once again suggests that we are
no longer starting from a wider kind and dividing it into more spe-
cific forms. We are instead moving in the other direction, beginning
from 'the unlimited'[27] and advancing up to 'the one', which Socra-
tes tells us will be a 'single form covering all things'. The story of
Theuth is meant to illustrate, in a very condensed fashion, how to
do this using collection and division:

Let us again make use of letters to explain what this means. . . . The way
some god or god-inspired man discovered that vocal sound is unlimited,

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[25] Compare the stages of enquiry set out by Aristotle in *Post. An.* 2. 1. There he
distinguishes between the stage aimed at determining the essence of some kind (τί
ἐστι) from the stage aimed at discovering its existence (εἰ ἔστι). On the Aristotelian
model, the latter (discovery) stage always precedes the former (definition) stage.

[26] I translate φύσις as 'substance' rather than 'kind', since the latter is used in this
paper mainly as a typological concept translating γένος or εἶδος.

[27] There are different views on just what this unlimited refers to here. Socrates
could mean the particular instances of a given kind, whose number is potentially
indefinite; for example, there are an indefinite number of particular human beings.
For this reading see Frede, *Philebus*, xxv. Harte, *Parts and Wholes*, 199–208, argues
that unlimitedness is rather 'a property of an undifferentiated phenomenon, such
as sound, the content of a domain of science, conceived in the absence of structure'
(204). My reading of the Theuth passage (and the nature of φωνή discussed therein)
follows Harte's interpretation.

as the tradition in Egypt claims for a certain deity called Theuth. He was the first to discover that the vowels in that unlimited variety are not one but several, and again that there are others that are not voiced, but make some kind of noise, and that they, too, have some number. As a third kind of letter [τρίτον δέ εἶδος γραμμάτων] he established the ones we now call mutes. After this he further divided the ones without sound and the mutes all the way to each unit, and he divided the vowels and the intermediate ones in the same way, until, having grasped the number for each one of them, he gave to each and all of them together the name 'letter' [στοιχεῖον]. And, as he realized that none of us could gain any knowledge of a single one of them taken by itself without understanding them all, he considered that single bond that somehow unifies them all and called it the science of grammar. (*Phileb.* 18 B 3–D 2, my translation, after Frede)

Commentators have traditionally taken Theuth's starting-point to be particular letters of the alphabet (actual instances of α, β, γ, etc.), of which there are an indefinite number of tokens. Moreover, they take his procedure to be essentially the reverse of division. Instead of beginning with the widest kind and dividing it into increasingly narrow species, Theuth begins by collecting particular letters together into species and species into genera until finally arriving at the *summum genus* 'Letter'.[28]

This interpretation seems to misconstrue what Theuth is actually up to in our passage. First, Theuth begins, not with discrete letters, but with vocal sound (*phōnē*). On one interpretation *phōnē* refers to the continuous stream of speech that comes out of people's mouths.[29] On this reading, Theuth begins with spoken (as opposed to written) language. At the start of the process the different kinds of letter that he will eventually discover are embedded within the streams of vocal sound in undifferentiated form. Socrates tells us that what Theuth was able to do was to differentiate the kinds of letter out of this 'unlimited many' using the method of collection and division. Second, Theuth's activity is not the reverse of division. Just as in the search for definitions, collection and division are used in conjunction with one another at every point along the way. This much is clear from the text. Theuth first collects together the

[28] This is how Hackforth, Gosling, and Frede recommend we understand the example. For replies see Menn, 'Collecting the Letters', 293–4. My interpretation of the Theuth passage below owes a great deal to Menn's paper, although we do not agree in our understanding of the role of collection and division in this passage and in Plato more generally.

[29] For this reading of φωνή see Menn, 'Collecting the Letters', 292–4, and Harte, *Parts and Wholes*, 205. This is also how Frede translates φωνή at 17 B 3.

different sounds embedded within the *phōnai* and groups them into various kinds (vowels, mutes, etc.) on the basis of their shared aural properties. He then *divides* these kinds 'all the way down to each unit' (e.g. alpha, omicron, epsilon, etc.).[30] So we cannot claim that Theuth was engaged in collection *as opposed to* division.

However the actual procedure Plato is describing here might have worked, what is important for my purpose is (1) that Theuth is credited with discovering a set of basic kinds—in this case kinds of letter (εἴδη γραμμάτων)—and (2) that he did so using the method of collection and division. What Theuth ends up with is a conceptual map of the basic kinds that make up the science of grammar (γραμματικὴν τέχνην), to which he applied the name 'Letter'.[31] If this is right, then Plato did envisage a procedure for discovering natural kinds, and he thinks that collection and division have an important role to play in this process.

To close this paper, I want to consider whether Plato's account of collection and division amounts to a formal method (as most commentators seem to assume) or whether he saw them as informal techniques that the trained philosopher has in her toolkit for accomplishing various epistemological tasks.

5. Some remarks on method

At various places Plato refers to collection and division jointly as a *methodos* (*Soph.* 218 D 5, 227 A 8–C 6; *Polit.* 260 E 8, 266 D 7, 286 D 9) and a *technē* (*Phdr.* 265 D 1). However, it is unclear whether or not he is thinks of collection and division as a systematic 'method' for accomplishing a specific set of tasks in the way that Aristotle does. While there is no closed set of features by which we could determine whether something counts as such a procedure, at a minimum I propose the following two features as characteristic marks of a formal method. A formal method tends to include (1) a technical vocabulary and (2) a set of formal rules for its proper application.

Let me begin with the first feature. Does Plato develop a technical

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[30] I take the units in question to be the individual kinds of letter, which do not admit of further division but form the basic elements of that domain.

[31] Compare Harte, *Parts and Wholes*, 205–6. Harte describes Theuth's activity as 'prescientific' in so far as it involves 'the discovery of a domain of science, and hence involves the discovery and not the application of the corresponding science, phonetics' (205).

vocabulary to go along with collection and division? The two main candidates for technical terms are *genos* and *eidos*. While neither of these has the fixed reference that the terms 'genus' and 'species' do in modern taxonomy,[32] they do have a consistent typological application in the context of collection and division, where they typically mean a certain *kind* of thing. However, unlike such technical Aristotelian terms as *ousia* and *hulē*, whose meaning is fixed by their theoretical context, there seems to be nothing overly technical about Plato's use of these terms. Consider the following examples, which are typical of Plato's diairetic use of *eidos* and *genos*:

(1) 'Art as a whole falls pretty much into two kinds [*eidē*]' (*Soph.* 219 A 8).

(2) 'So are we going to count likeness-making and appearance-making as two indisputable kinds [*eidē*]?' (*Soph.* 266 E 3–4).

(3) '. . . there are two kinds [*genē*] of persuasion . . .' (*Soph.* 222 D 3).

(4) '. . . the kind [*genos*] consisting of self-directors. . .', '. . . the kind [*genos*] consisting of kings . . .' (*Polit.* 260 E 5–7).

(5) 'Of that theoretical knowledge that was directive, we had a part of the kind [*genos*] concerned with rearing living things, one of which was concerned with creatures living in herds' (*Polit.* 263 E 8–9).

(6) '. . . the kind [*genos*] consisting of doctors [τῶν ἰατρῶν] . . .' (*Polit.* 267 E 8).

It would have been perfectly natural for an ordinary Greek speaker to read these passages and understand *eidos* and *genos* to mean a 'kind' of thing.[33] For both of these senses were already in use in popular Greek literature. For example, although *eidos* was commonly used to mean the 'shape' or 'figure' of a thing, it was also

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[32] In modern taxonomy genus and species refer to the two bottommost ranks of the Linnaean hierarchy. Pellegrin and Balme have taught us that, in Aristotle at least, *genos* and *eidos* cannot have these fixed taxonomic designations, since they can be used for any level in a division tree. See P. Pellegrin, *Aristotle's Classification of Animals* (Berkeley, 1982), and D. Balme, 'GENOS and EIDOS in Aristotle's Biology', *Classical Quarterly*, NS 12 (1962), 81–98. The same holds for Plato. For example, Plato uses γένος both for very extensive kinds (e.g. *Polit.* 260 E 5–6: self-directors) and for so-called atomic species (e.g. *Polit.* 266 A 3: dogs). Likewise, εἶδος is used at multiple levels of a division tree (e.g. *Soph.* 219 A–220 A). *Soph.* 220 A even uses γένος for the subdivisions of an εἶδος.

[33] I am grateful to Kendall Sharp, Aara Suksi, Matt Carter, and Kirk Sanders for their help on this issue.

used to pick out a variety of some wider kind (e.g. Hdt. 1. 94. 3 'all
other kinds [*eidea*] of game'; Thuc. 2. 50. 1 'a kind [*eidos*] of sick-
ness'; Isocr. *In soph*. 17. 3 'different kinds [*eidē*] of discourse'). I
suggest that Plato is using *eidos* in (1) and (2) in a similar way.[34]

At *Polit*. 262 B–C the Stranger does attempt to distinguish
between a *meros* and an *eidos* of a wider kind, which may indicate
that Plato is using *eidos* in a technical way. Indeed, Young Socrates
has to ask about this distinction: 'Quite right! But this very thing,
how is one to see more clearly that "kind" [*eidos*] and "part" [*meros*]
are not the same but different from each other?' (263 A 2–4). No
doubt the Stranger intends to use *eidos* not just for any division
('part') of a wider kind but for a division that cuts nature at the
joints, i.e. a *natural* kind. Yet, when pressed about this distinction
the Stranger refuses to go into detail (263 A–B), which suggests
that Plato does not in fact have a well-worked-out account of the
distinction, or, at the very least, that he thinks we do not need a
precise account of it in order to proceed with division.

There is nothing overly technical about Plato's diairetic use of
genos either. Before Plato *genos* was used in a genealogical sense to
mean 'family', 'race', or 'lineage' (e.g. Thuc. 1. 24. 2, 'the lineage
[*genos*] of Hercules'; 1. 126. 11 'the accused and their descendants
[*to genos*]'; Hom. *Il*. 13. 354 'the twain were verily of a similar stock
[*genos*] and one parentage'; Hdt. 1. 125. 3 'there are many tribes
[*genea*] in Persia', and 'the variety [*genos*] of nesting birds'; Eur.
Med. 574 and 909 'the kind [*genos*] consisting of women'). In many
cases Plato's diairetic use of *genos* simply reflects this common usage
in a straightforward way, as when he speaks of 'the *genos* of humans'
(*Polit*. 262 C 10–D 1) or 'the *genos* of dogs' (*Polit*. 266 A 3). Examples
(4) and (6) are only a slight extension of this genealogical sense,
while its application to inanimate objects in (3) and (5) extends the
ordinary meaning only slightly further. But even in these cases it
would not have struck Plato's non-philosophical audience as a par-
ticularly strange use of the term. And Plato nowhere suggests that
he is attempting to use *genos* in any new and technical way.[35]

[34] Of course, εἶδος does pick up a technical sense in the so-called middle dialogues
(e.g. *Phaedo*), where it is used to refer to separately existing Forms. But there is little
evidence that Plato's diairetic use of εἶδος in the late dialogues is intended to refer to
those entities; nothing obviously requires it.

[35] The preceding analysis has implications for the two interpretations of the ob-
jects of division mentioned at the outset. If I am right that Plato's use of γένος and
εἶδος retains their ordinary, non-technical meanings, then they should not be seen

Another word that is conspicuously absent from Plato's diairetic vocabulary is a term for specific difference. Platonic division involves partitioning a wider kind into subkinds on the basis of some relevant difference. Aristotle will later introduce the technical concept *diaphora* (differentia) for this. Yet, despite the fact that *diaphora* plays an important role in the metaphysical treatment of non-being in the *Sophist*, Plato never avails himself of this concept or develops it into a technical term for use in collection and division.[36] Instead Plato typically uses the dative of means for this. For example, at *Polit*. 264 A 1–2 living creatures are divided *by* domesticated and wild (both datives) and at 264 E 6 dry-land animals are divided *by* winged and footed (both datives).

There is thus little evidence to suggest that Plato was attempting to develop a technical diairetic vocabulary for philosophical purposes. Most of his terms were already in use by ordinary-language speakers of his day, and where he does hint at technical distinctions we are never offered an account of them.

Let me now turn to the second mark of a method. Does Plato articulate any formal procedural rules that could be used to avoid error and ensure proper collection and division? Aristotle certainly did. For example, both the *Metaphysics* and *Parts of Animals* prescribe the rule 'always divide a differentia by its own proper differentiae' (*Metaph. Z* 12, 1038^{a}9–^{b}35; *PA* 1. 3, 640^{b}29–641^{a}4).[37] For Aristotle this rule is critical for preserving the 'vertical' unity of a given branch of division. If we divide each differentia by its own proper differentiae, then the final account need only specify the final differentia; the others will be superfluous. For example, in the division *footed → two-footed → forward-bending-two-footed* (the form of bipedalism exhibited by humans) the latter terms all imply the former so that the branch can be collapsed into one single differentia specified by the last term. This is just the sort of rule that Young Socrates could have applied to the Stranger's division at *Polit*. 265 B 8–12: 'Of tame things that live in herds, we find those that go on foot naturally divided into two. . . . By the fact that some of them come into being without horns, some with horns.' Since horned/hornless

as referring either to separately existing Forms or to 'classes' in the sense used by modern set theory.

[36] The use of διαφορά at *Polit*. 285 A–B does come close, however.

[37] *Topics* (e.g. 4. 1, 120^{b}35–121^{a}9) and *Posterior Analytics* (esp. 2. 13) are also full of technical rules for division.

does not pick out a difference *in footedness*, Young Socrates could
have objected that this violates one of Aristotle's rules of division.

   We could certainly formulate some rules of division on Plato's
behalf based on his various remarks: always cut along natural joints
(*Phdr.* 265 D); cut dichotomously through the middle of things
(*Polit.* 262 B–C); make sure divisions do not bypass important in-
termediate kinds (*Phileb.* 17 A); the final division must separate the
object of definition from everything else (*Polit.* 268 C–D; *Theaet.*
208 C–D); and so forth. The problem is that Plato's actual recom-
mendations simply do not look like formal procedural rules. As
we have seen, the Stranger's warning at *Polit.* 262 A 8–C 1 that one
should be careful 'not to take off one small part on its own, leav-
ing many large ones behind' but should instead 'go along cutting
through the middle of things' is simply recommended as a 'safer'
(ἀσφαλέστερον) way to ensure that our divisions hit natural kinds
(cf. *Soph.* 231 A–B). The Stranger allows Young Socrates to ignore
this suggestion when it is more expedient to do so (*Polit.* 265 A–B)
and actually tells him to give it up whenever it is impossible to cut
kinds into two (287 C). This makes *Polit.* 262 B–C sound more like
a general guideline than a strict rule of division. Again, while Plato
makes much of dichotomy, he recognizes that dividing by two is
simply pragmatic. For in some cases it is not possible to divide into
two, so that we must have recourse to another diairetic technique
(*Polit.* 287 C).

   The naming of kinds is another place one might look for formal
procedural rules.[38] In many places it looks as though Plato takes
the issue of nomenclature seriously. Sometimes applying a name to
a collection is important for establishing the unity of that kind. For
example, in order to form the kind 'production' the Stranger tells
Theaetetus that the right procedure is to collect its many forms
together and 'call them all by a single name' (*Soph.* 219 B 2). Again,
at *Soph.* 222 C 10–D 1 applying the name 'expertise in persuasion'
helps them collect together legal oratory, political oratory, and
conversation into a unified kind. Finding the right name to apply
to a kind is also important because the wrong names can lead
us astray in our attempt to classify objects. At *Polit.* 275 D–E the
Stranger highlights two mistakes in their division, one of which

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[38] One of Linnaeus' major contributions to classification was to formalize the nam-
ing of kinds by introducing strict rules of nomenclature that still govern taxonomy
today.

arises from their choice of name. They were wrong to use names like '*koinotrophikēn*' and '*agelaiotrophikēn*' in their earlier division, since '-*trophikēn*' (implying rearing or nurturing) is not common to all herdsmen (the statesman having already been classified as a kind of herdsman: 275 D–E). Unlike a typical herdsman, the statesman is not directly involved in rearing those in his care; he does not actually feed and nurture his flock in the way a sheperd does (cf. 276 B). So these names technically exclude statesmanship and thus fail to pick out the feature that is common to all herdsman. Rather than making a substantial revision to the division tree, the Stranger recommends that they simply 'refashion' (μετασκευωρήσασθαι) the name into something having to do with caring for or looking after a thing (*therapeuein*), since no one would dispute that what all herdsmen have in common is the fact that they all care for their herds (276 D). Thus, in place of '*koinotrophikēn*' and '*agelaiotrophikēn*', they agree to use names like '*agelaiokomikēn*' and '*therapeutikēn*', which would 'cover the statesman too as well as the rest, given that this was the requirement our account indicated' (275 E). Given the importance that Plato assigns to names here, we might expect collection and division to be governed by rules of nomenclature that give us direction about selecting the right names for our kinds. Yet, we find no such rules anywhere in the text.

(One explanation for the absence of any rules of nomenclature may be that, in fact, Plato sees names as having only secondary importance in division, and even being distractions. At *Soph*. 227 C, for example, Theatetus is told that it does not actually matter which names are the most appropriate, as long as the name chosen helps keep separate kinds separate. At *Polit*. 261 E the Stranger is not only uninterested in getting names right, he even praises Young Socrates for ignoring them, suggesting that by doing so he will be seen to be 'richer in wisdom'. Eventually the Stranger suggests giving up the business of naming entirely and recommends instead using descriptive phrases or name-like expressions for the results of division, such as 'the science of tending herds that do not interbreed'. For trying to find the right names for the parts of a division just ends up being more trouble than it is worth (*Polit*. 265 C). Plato's attitude towards naming kinds is clearly one of ambivalence.)

In the end I think the evidence that Plato saw collection and division as a formal rule-governed method is weak. While he calls the procedure a *technē* and a *methodos*, there is simply no attempt to

formalize it in any serious way. The process would later become formalized in the hands of Aristotle, who introduced a technical vocabulary and formulated explicit procedural rules that could be written down in a handbook for ensuring proper divisions.[39] Under Aristotle, then, collection and division did become a method in the strong sense. It was a strict rule-governed procedure that could be put in the hands of anyone and they would be generating real definitions in no time. Collection and division simply do not have this same character in Plato's dialogues.

One could respond that Plato does in fact formulate diairetic rules, albeit ones that are not strict and inviolable: they may be rules of thumb, but they are rules none the less. For each one specifies a principle, regulation, or maxim governing the practice of collection and division. If this is right, then the fact that there is nothing that even comes close to the level of formal rules found in Aristotle's treatises is simply evidence that Plato was only just beginning to develop the procedure. While this cannot be dismissed, the picture that emerges from the dialogues is that, for Plato, the ability to collect and divide properly is more of a skill that good philosophers acquire as a result of rigorous training than something to be learnt from a handbook such as Aristotle's *Topics*. This helps explain why Plato remains silent in many key places where we would expect to find guidance on how to carry out proper collections and divisions.

For example, although Plato insists that our divisions must cut nature at the joints, he has little to say about how to guarantee this. *Polit*. 262 B–C tells us that it has something to do with *dichotomous* division: when we 'go along cutting through the middle of things' we will be more likely 'to hit upon real kinds'. But we are not told much more than this. Again, proper division clearly needs to distinguish between accidental and essential differences if it is to generate real definitions. Aristotle later identifies the lack of any formal mechanism for ensuring this among the weaknesses of division as traditionally practised: 'What is to prevent the whole expression [generated by division] from being truly predicated of human and yet not reveal the "what it is" or "what it is to be" of a human? And what is to prevent something being added or left out or from

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[39] See D. Balme, 'The Use of Differentiae in Aristotle's Biology', in A. Gotthelf and J. G. Lennox (eds.), *Philosophical Issues in Aristotle's Biology* (Cambridge, 1987), 69–89.

passing over something in the substantial being?' (*Post. An.* 2. 5, 91ᵇ24–7). In order to correct this, Aristotle recommends following three principles: (1) at each stage of division select only those elements that are predicated in the essence; (2) make sure the division is an ordered sequence; and (3) make sure each division is exhaustive so that no terms are omitted from the definition. *Post. An.* 2. 13 then provides a method for achieving these goals: 96ᵃ24–ᵇ14 tells us how to pick out the essential attributes of a kind; 96ᵇ15–36 tells us how to ensure that our division lays out the terms of the essence in the right order; and 96ᵇ36–97ᵃ6 tells us how to make sure our divisions leave none of those terms out, which involves dividing a kind by its 'primary differentia' (πρώτη . . . διαφορά, 97 A1).

Plato surely recognized these requirements on division.[40] Yet there is little in either the *Sophist* or the *Statesman* resembling a formal method for satisfying them. If I am right, the reason for Plato's silence on these crucial matters is that he does not see collection and division as a methodical, rule-governed procedure at all. There are no explicit rules to guide the philosopher here. Instead, Plato seems to rely on her ability simply to spot the essential similarities and differences among things (*Phdr.* 264 D 3 συνορῶντα; 266 B 2 ὁρᾶν; *Polit.* 285 B 1–4 αἴσθηται, ἴδη, ὀφθῶσιν). For Plato, collection and division are reserved for the philosopher because only she has acquired the training necessary for doing this (*Soph.* 253 D). This is why he insists that the mundane examples of angling and weaving are used for the sake of making us better dialecticians (*Soph.* 218 D; *Polit.* 285 C–286 B). By practising on these models the philosopher eventually acquires the ability to 'see' where the natural joints are and mark the difference between accidental and essential features. In this sense, as Socrates tells us at *Phdr.* 263 C 4–5, the experienced dialectician is the one who has acquired 'a sharp eye for whichever kind his subject-matter belongs to'.

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[40] Young Socrates' error at 262 B–C shows his awareness of (3) (see above), and the first six failed accounts of the sophist in the *Sophist* seem to be evidence that Plato appreciated (1) (cf. Notomi, *Unity*, 79–81). That Plato recognized (2) is less obvious, though.

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