

PLATONIC DIAIRESIS

JAMES A. PHILIP

Trinity College, Toronto

Plato's occasional pronouncements on philosophical method raise for us more problems than they solve. "Doing philosophy" was for him the dialectical process his dialogues were written to exemplify. Even the internal debate of the soul he saw as dialogue. But reluctant though he was to subject this process to formal rule, he was keenly aware of the twin pitfalls of hair-splitting (or eristic) and of aimless talk. As aids to the would-be philosopher he proposes in the course of the dialogues two principal methods. The first is the method of "hypothesis." It is outlined in the *Republic*, but in fact its use is hardly ever exemplified either in the *Republic* or in any subsequent dialogue (R. Robinson, *Plato's Earlier Dialectic*² [Oxford 1953] 202). The second method is sometimes called collection and division, but more often simply diairesis or division.¹ It is first mentioned in the *Phaedrus* (266B) as an important innovation,² and its practitioners are said to be dialecticians or philosophers par excellence. The method is discussed at some length in the *Philebus*, *Sophistes*, and *Politicus*; and is exemplified repeatedly and in great detail in the last two of these dialogues. There it is again emphatically stated (*Soph.* 253C-E) that the philosopher is the dialectician and that his science (*epistêmê*) is that of division.

¹ For discussions of division see H. Cherniss, *Aristotle's Criticism of Plato and the Academy* (Baltimore 1944) 1-82; Sir David Ross, *Plato's Theory of Ideas* (Oxford 1951) 116-19, 194-96; A. E. Taylor, *Plato: The Sophist and the Statesman* (London 1961) 15-32, 75-80; G. Ryle in *New Essays in Plato and Aristotle*, ed. R. Bambrough (London 1965) 39-68; J. Stenzel, *Zahl und Gestalt*³ (Bad Homburg 1959). See also G. Ryle, "Letters and Syllables in Plato," *PhR* 69 (1960) 431-51, and the discussion of that article by D. Gallop, *PhR* 72 (1963) 364-76. I allude to the works mentioned above by the names of their authors. I am indebted to Professor Gallop for criticism of a draft of this paper, as also to Professor George Edison.

² It has been suggested that the diairetical method is employed in *Gorgias* 464B-465D and is alluded to in *Republic* 454A. This remains questionable. Certainly it is proclaimed as a novelty in the *Phaedrus*, and its features are there outlined as they would hardly be if the method were a familiar one.

Plato did not confine himself to assigning an exalted status to division, and to painstaking and elaborate exemplification in the dialogues. He also had it practised in the Academy. There the mathematical disciplines were the propaedeutic, but exercises in philosophy proper were apparently exercises in division. In a fragment of the comic poet Epicrates preserved for us by Athenaeus (2.59D) we have an amusing picture of the youths of the Academy practising the method under the guidance of their elders. Plato, Speusippus, and Menedemus are present, apparently presiding over the young men's exercises. They are attempting to classify a gourd. "First they all stood over it with heads bent and without uttering a word, and thought for some time. Then of a sudden, while the young men were still intent, someone said it was a round vegetable, another that it was a grass, and yet another that it was a shrub." A Sicilian doctor interrupts rudely and vulgarly, but the young men are not distracted by his protest, and Plato himself gently bids them start again.

This description is significant.³ The poet obviously had witnessed the scene or some such scene and, since he uses the appropriate technical language, is one who understood what was going on. If he could introduce such a scene in a play, the personages and the activities of the Academy must have been reasonably familiar to his public. He is not presenting a phantasy Academy, like the *phrontistêrion* of Aristophanes, but the Platonic Academy engaged in what he regards as, and apparently what will be generally accepted as, a characteristic activity, division. What sort of division? A plant of somewhat uncertain kind, a gourd, is being classified. It would at first appear that a botanical class is being sought, but it is perhaps more probable that we are witnessing the classification of a species under its genus by *similarity*, after the manner of Speusippus, whose *Homoia*, though they offer approximate botanical classes, were established usually dichotomically on the basis of similarities.⁴

³ H. Cherniss, *The Riddle of the Early Academy* (Berkeley 1945) 63 has argued against attributing to it any great significance. This is in accordance with his tendency, and allows its relevance in diairesis. For the use of the technical terms of diairesis see A. Diès, *Platon: Le Politique* (Budé, Paris 1960) xxvi-xxx.

⁴ Cf. P. Lang, *De Speusippi Academici Scriptis* (diss. Bonn 1911). Though similarities undoubtedly play a role in division, we are expressly warned (*Soph.* 231A) against "that slippery sort". Similarity might lead us to class together dog and wolf, the elenchtic

We have then the evidence of the dialogues for the theory and practice of division. We have the evidence of a comic poet for exercises in division in the Academy. We know that Speusippus published no less than three treatises concerning division (D.L. 4.5). We hear of a written collection existing within the Academy.⁵ We find Aristotle attacking the method as not yielding scientific knowledge (*An. pos.* 91B12 ff.). But though we cannot doubt the importance it assumed, its nature and purpose is nowhere clearly defined. Is it meant to yield definitions *per genus et differentiam*, one of its aims being to supplement or supplant Socratic definition? Should it also give us a completely articulated description of the genus divided? Are all genera to be subsumed under highest genera or a highest genus, the object being not only to define an infima species but also to exhibit all existing relations? And even if the dialogues provided us with clear answers to problems of form, there remain problems concerning the nature of the method. Must the kinds revealed by division have *idea* status? Do we differentiate between substances and properties? If the divisions proceed downwards only to infima species, is the

purifier of Socrates' type and the sophist. In the dichotomies of diairesis we divide into two classes exhaustive of the proximum genus. The members of a class are particular embodiments of a common nature or in some sense a "one over many". Class-inclusion is based on something more than mere similarity. If however we consider the meanings of *homoios* we appreciate that it extends beyond our vague notion of similarity to *homo-genês* (*Phaedo* 79B2; Des Places, *Lexique*, s.v.). Though similarity is not grounds for class-inclusion, members of a class will be similars.

Is Plato then dividing ideas? Must the classes of the dichotomies also have *idea* status? It would seem safest to answer that in the *Sophistes* Plato has not chosen to explore this problem. His interest is in the downward articulation of genus, as rendering possible the definition of an infima species.

⁵ Ross (144-45) argues that the "written divisions" of *De part. anim.* 642B12 and "Plato in the divisions" of *De gen.* 330B13 both refer to some table or set of standard divisions in use within the Academy. By making this connection of the two passages (which does not however seem necessary) we assume that in the latter of the two passages reference is made not to Plato himself nor to his writings, but to standard formulae of division in use in the Academy. Ross is undoubtedly right in rejecting the solution of H. H. Joachim (*Aristotle on Coming-to-be and Passing-away* [Oxford 1922] 214-17) that Aristotle is referring to Timaeus 35A ff. Aristotle is discussing the four elements of fire, air, water, earth (elements clearly individuated in the *Timaeus*) and the four elementary qualities of hot, cold, moist, dry. He is probably referring to some of the divisions in which the elementary qualities were three, but the one between the two extremes (*meson*) admitted of a further division into two. Plato nowhere in the dialogues suggests that, for example, hot and cold are poles of a contrariety and moist/dry are an intermediate *migma*.

particular neither existent nor knowable? These and many other questions arise. Not all of them are answerable. Here we shall attempt to ascertain *what the dialogues tell us*, first by seeing what Plato himself has to say of division—his theory—and then by observing how he uses it—his practice. Our inquiry must also observe a further distinction made in the dialogues, that between collection and division. The method demands that a summum genus be agreed upon before a division can begin. How do we arrive at it?

When the method of collection and division is first proclaimed, in the *Phaedrus*, what leads up to it is Socrates' contention (262A) that a speaker must know the truth, even if his aim is to mislead; and that to know the truth one must "discern with precision the similarity and dissimilarity of existents." This requirement will be satisfied by one practising the method of collection and division. Collection is (265D), after a general survey, to bring under one kind or class or general notion (*idea*) the many scattered instances surveyed. Its purpose is to define and so clarify the subject of discussion. In the discussion of the *Phaedrus* Socrates claims to have defined Eros, and he has indeed subsumed it under madness (*mania*), but no formal definition has been offered, nor could it be offered without completing the division.

We would expect that the method announced in the *Phaedrus* would consist in two phases, first collection and then division, though the two might in practice overlap. But in fact the term collection (*synagogē*) does not occur again, and the verb (*synagein*), though it sometimes refers to a process of collection, does so incidentally. We find it used to refer to a collection (not in any technical sense) into a final definition of the dichotomic differentiae yielded by a diairesis (*Soph.* 224C); of a collection of class members,⁶ in order to bestow on them a name (*Soph.*

⁶ It is obvious that the method of diairesis is concerned with classes and classification. I have therefore translated both *genos* and *eidos* (Plato uses these terms without distinction) as "kind" or "class" and, when it can hardly be avoided, also as genus and species.

The term "*idea*" in its rare occurrences in these dialogues does not appear to imply "idea" or "form" in the sense of the Theory of Ideas. *Soph.* 235D: "I seem to discern two kinds (*eidē*) of mimetic, but cannot yet discover in which of them the aspect (*idea*) we are seeking is." *Soph.* 255E: Every kind is different from all other kinds not because of its own nature, but because it participates in the *idea* of *thateron* or difference. (In the context of the *Sophistes* this participation is association in a statement. This is not to deny that *thateron* is also an *idea*.) *Polit.* 262B: In division make sure that the parts into which you divide are really kinds. It is best to proceed by dichotomies. That way you

267A); of a collection of the members of a threefold species (not summum genus) preceding a division (*Polit.* 267B); and again of the collection of a species in the course of a division (*Phileb.* 23B and 25D). In none of these instances is reference made to a collection designed to gather together, as in a sheepfold (*Polit.* 285B), the members of a class in order to "stamp on" them the class name (*Polit.* 258C). Much less does it refer to the collection of all species comprised in a genus, made preceding division.

We are told (*Polit.* 285A-B) that the dangers of inexpert classification are great. What we must do on perceiving a common characteristic in a plurality is to persist until we perceive all specific differences it exhibits. When on the other hand we perceive dissimilarities in aggregates we are to persist until we have grouped likes together and can say they fall within a genus (or species). Here we are being told always to divide our genera or species (down to infima species), and always to isolate in a definable class the members of that class appearing in a heterogeneous plurality. In neither case are we told how to identify a summum genus prior to dividing. If we consider the divisions offered as exemplary in the *Sophistes* and the *Politicus*, none of them is obviously preceded by a collection. In the first division of the *Sophistes* (219A) we begin by recognizing that the angler is a practitioner of a craft, and we proceed with the division of "craft" (*technê*). When we move from this paradigmatic division to our first division of the sophist (221C), we concede that the sophist, like the angler, is the exponent of a *craft*; and this summum genus is maintained throughout the succeeding divisions, even in the sixth division isolating sophists of the type of Socrates, where however we move downwards in division through productive rather than acquisitive crafts (226A).

The divisions of the *Politicus* follow a similar pattern. Nowhere do we discover a methodical procedure preceding a division, showing what Plato means us to *do* before we divide. As discussion begins in the

are more likely "to hit on class characteristics (*idea*)."

(On *Soph.* 253D see below, note 11.) There are three other uses of *idea* in these dialogues. In all cases the term seems to refer to the common *aspect* of a class. In none does it have any clear reference to a Theory of Ideas. If the kinds or classes are also ideas, we are here thinking of them as kinds or classes and not as universals having other relational problems (immanence, transcendence).

Sophistes (218B) we are offered a paradigm or model.⁷ This paradigm furnishes us with the summum genus for all the succeeding divisions, and it is elicited (219A) simply and informally by posing the question "Is angling a *technê*?" i.e. is it an activity implying a skill and practised according to the rules of that skill? The answer is immediate. Obviously every purposeful activity habitually and commonly practised involves skills and rules. So our summum genus is immediately "seen." In the *Politicus* (258B ff.) the procedure is if possible yet more simple. As soon as the question is put whether the statesman is one possessed of knowledge or skills (*epistêmôn*), an affirmative answer is given. Though the term we use is science (*epistêmê*) rather than skill (*technê*), they are assumed to be synonymous (258B). It is said (258B) that there are some *technai* that result in knowledge only, but this is not regarded as limiting the extent of the genus: i.e. a distinction between knowledge and know-how is not made.

Later in the *Politicus* (279A) we are offered weaving as a paradigm for the statesman. We are told that it is a useful paradigm because weaving is the same sort of activity as statesmanship, and because by comparison (i.e. by analogy) it will enable us to arrive at the goal of our inquiry, the definition of the statesman. It is *only* when this paradigm is offered that the successful division of the *Politicus* begins, and we may be meant to infer that a major division should be preceded by a paradigm. (If so, we ask ourselves how we are to choose our paradigm; cf. R. Robinson, *Plato's Earlier Dialectic*² 214-215.) So our conclusion must be that though genus may sometimes be arrived at by a sort of collection, in the *Sophistes* and the *Politicus* it is reached by an intuitive leap. We apparently look at the infima species to be defined and *see* the summum genus under which it must be subsumed. False starts and errors are no doubt possible, though they are not exemplified, but the skilled dialectician will divine correctly.⁸

⁷ See V. Goldschmidt, *Le Paradigme dans la Dialectique platonicienne* (Paris 1947). He suggests that the paradigm is a formal (16) exercise (9) illuminating the principal theme (19 ff.) by analogy (35, 98-102).

⁸ I. M. Crombie, *An Examination of Plato's Doctrines* (London 1963) 2.369, suggests that collection consists in (1) "a systematic survey of the range of the property in question" and (2) "an ability to isolate the common factor." He may be suggesting only that in collection we first consider the individuals or species to which the kind or concept to be defined in fact applies; e.g. in the case of the sophist the types to which this name is

We might be tempted to suppose that a survey of members of the class to be defined would prove a means, if not to arrive at, at least to intuit the summum genus under which the class is to be subsumed. In the *Meno* (72A) and more explicitly in the *Theaetetus* (146C–148C) an enumeration of members of the class to be defined is rejected. Theaetetus offers (146C) as instances of “science” geometry and its kindred disciplines, and shoemaking and its kindred crafts. He is told that to indicate the number of the sciences, and their purpose or product, will not further the inquiry. When, for example, we are asked what “clay” is we do not want an enumeration of the kinds of mud or clay. We want a definition, telling us that “clay is earth mixed with water.” Similarly for Theaetetus’ surds (148A–B) we are looking for a definition. It is true that Theaetetus’ definition is arrived at by a survey of all instances up to 17; but there is little or no parallel between defining the term “surd” by mathematical procedures and “collecting” the genus under which the species “sophist” falls. If Plato had meant us to make a survey, systematic or otherwise, of the range of sophistry, in order to arrive at a summum genus, surely he would have exemplified the procedure, especially when he had deplored an analogous procedure elsewhere.

If however the role of collection in the choice of summum genus is not exemplified, we have several examples of collection in subsequent dichotomies. When in the *Sophistes* (219A) the first division of the summum genus is made, we have something like a survey of the field to see where the division of the genus comes. Agriculture, the tending of animals, the manufacture of articles necessary for living, and the arts of representation are all creative or productive crafts, and are to be applied. Then we consider what they have in common. Plato nowhere exemplifies or suggests such a procedure. Even if we had before us a collection of the species “sophist” we would have no means of determining what its “similar” had in common. Further, we would have to include in our survey merchants, hunters, wrestlers, artisans—a whole population practising what was perhaps the least obvious activity of the sophist—before we arrived at the summum genus *technê*. If of course our definiendum is “sophistic craft” then it is obvious that “craft” is, if not the genus, at least a higher species. But otherwise Plato seems to move from definiendum to summum genus by an intuitive leap. He does not tell us how to make the leap.

Crombie’s reference to *Philebus* 25D5–9 and 26C9–D5 is justified only by the use there of the term “collection.” It does not however have reference to the *method* of collection and division but to the fourfold classification of the *Philebus*. There the initial aggregate is an *apeiron*. It is analyzed into its elements, but not by diairesis.

distinguished from the acquisitive crafts, a number of which are alluded to by generalizing terms. The same thing occurs in the *Politicus* (258D), where the sciences are divided into practical and theoretical, and some hints of the extension of either class are given. Such a collection may occur at any stage of a division. In the sixth division of the *Sophistes* (226A), for instance, we survey the names for household activities in order to discover (226C) a higher species under which they may be subsumed.

Further, in the *Sophistes* (232A–B) the first six divisions are themselves treated as giving rise to a sort of collection. The fact that the practitioner of a single craft emerges as exercising several differing crafts is treated as an indication of a mistake not in the summum genus but in some subsequent step, and the Eleatic Visitor at once puts his finger on the step in question. Apparently a *survey* of the divisions enables him to do this; i.e. what he does has the synoptic characteristic of collection.

To sum up, we are not told how to arrive at a summum genus. A paradigm does not help us to intuit it. Collection may have some role in arriving at the summum genus, but that role is not exemplified though it is for subsequent dichotomies. Their summary collections are of likes or similars, but you must proceed with caution in your assessment of similars. Classing them together is a slippery business (231A). You must be on your guard against classing together dog and wolf, the wildest and the tamest creature. Plato believed in no constant and rigorous method by which you can always put things in their pigeonholes of classification. You must have a capacity to generalize and a capacity to analyze: an ability to see similarities in kinds and analogies in structure. Then long practice will enable you to master what must be your characteristic method.

If however the phase of collection is perhaps insufficiently clarified, both the theory and the practice of division are dealt with repeatedly and in detail. The examples of division given us may seem unnecessarily prolix and tedious, but we must remember that Plato is teaching a method. He is showing us how to do our divisions correctly, and illustrating the errors into which we may fall. If we discover in his division traits of a somewhat pedantic humor we must remember that he adheres to the conventions of the dialogue, and that for him what is seriously meant need not be solemnly said. In what is perhaps the

best general description of the method, a description that also covers collection, we are told (*Polit.* 285A-B):

Because they are not trained in and do not habitually use division in accordance with kinds or classes, they think things greatly differing to be likes or similars and toss them all indiscriminately in one heap, while on the other hand neglecting to divide into parts things having obvious parts. What they should do when they perceive some community (of nature) in a plurality is to persist until they discover all the differences that constitute kinds or species. As for the manifold dissimilarities perceivable in pluralities, they must persist undismayed and refuse to call a halt until they fence off all related entities within the bounds of one similarity and enclose it as a real and definable kind or species.

In this passage Plato reminds us of the dangers of improperly or prematurely establishing a class, and of impatience in dividing down to infima species. Our eye must be so trained in perceiving similarities and dissimilarities that we see when similars do, and when they do not, constitute a kind or class properly so called. The method is further described in the *Sophistes* (235B-C):

We are agreed then to divide the semblance-making craft. As we advance into (that territory), if the sophist stands his ground against us we will apprehend him, as was enjoined on us by our sovereign Reason, consign him to a reasoned statement and thus declare (the success of) our hunt. But if our quarry takes refuge somewhere among the parts or sub-classes of the representational craft, then we will follow on his track, dividing always that part or class in which he has taken refuge, until we capture him. For neither he nor any other kind will ever boast that they escaped the methodical pursuit of those who could follow on their heels both generally and in detail.

Here the philosopher in pursuit of his definiens at the command of Reason is compared with the hunter in pursuit of his prey at the command of his master. As the hunter pursues his prey through thicket after thicket until he seizes it and holds it up to show it, so the philosopher pursues his definiens from dichotomy to dichotomy until at last he apprehends it and can demonstrate it to the satisfaction of reason. And as the hunter's thickets must be enclosed by nets or a line of beaters so that the prey cannot escape, so the divisions of the philosopher must be circumscribed by a collection of the kinds in question under one genus.

An important and difficult passage in the *Sophistes* (253B) has been interpreted as referring to division:⁹ "When we give children instruction in speaking and reading they must learn to distinguish between vowels, which acts as links, and consonants; and they must learn how letters can be combined in syllables" (i.e. what combinations are possible; e.g. they cannot combine *kga* as one syllable), "how syllables can be combined to form words and how this affects accentuation."¹⁰ Plato then proceeds to apply his simile or analogy.

The kinds behave in the selfsame way towards one another, as far as their combinations are concerned. There too you must have the appropriate skill in the procedures of reasoning if you are to point out correctly what kinds admit of, and what kinds exclude, combination with one another; further, if some of them (like vowels) are elements of connection making combinations possible; and again in division if yet other kinds by pervading wholes are the grounds for such divisions.

That is, you must be able to recognize the kinds or classes that do, and those that do not, belong to the same genus; you must see what

⁹ Crombie (above, note 8) 2.374–88 regards "the letters and syllables of reality" as a metaphor intended to illustrate diæresis. "One way of spelling a syllable is to define it *per genus et differentiam*" (380). "The *Philebus* is all for division, and the *Statesman* is all for spelling" (375). This is misleading. The confusion between spelling and division vitiates Crombie's discussion of diæresis. The *Philebus* is not concerned with diæresis as a method. The *Statesman* has as one of its objects to illustrate that method. The metaphor of spelling is used, as a paradigm or analogy, for different purposes in different contexts. In each case the context must determine how it is used. In the *Statesman* (277D–78D) spelling is offered as an analogy of how, again by analogy, we come to know the "letters of all things." The *stoicheia* (letters) we encounter in learning to read and write are analogous to the *stoicheia* (elements) we encounter in weaving. These latter will help us to understand the less familiar "elements" in statesmanship. In the *Sophistes* (253A–B) the analogy letters/elements of reality and syllables/combination of kinds is used to illustrate not division but the *koinônia genôn*. It is only such a horizontal relation that it is suited to illustrate. As by a person having the skill of letters (*grammatikos* or *mousikos*) letters are properly combined to form syllables, so by the person possessing dialectical skills the kinds are correctly combined to form statements. The analogy would not illustrate division. Plato, as Robinson (*Plato's Earlier Dialectic*² [Oxford 1953] 204–222) has shown, uses his analogies repeatedly and not always to the same purpose. Their aim is to bring to our waking knowledge things of which we have dream knowledge (*Politic.* 277D); that is, to make us see similarities, especially of structure, of which we are only subconsciously aware.

¹⁰ The Greek boy did in fact learn in about the way Plato describes. See H. I. Marrou, *Histoire de l'Éducation* (Paris 1958) 210–18; Quintilian 1.1.25; G. M. A. Grube, *The Greek and Roman Critics* (Toronto 1965) 288.

are the vowel kinds (such as being, identity, and difference) that make possible inter-kind relations and distinctions; and you must see how a species is divisible into sub-species.¹¹ What Plato is here describing is not diairesis but an analysis of the structure and relations of genera.

His general descriptions of the method of division are illustrated by the examples Plato gives us, and by incidental remarks regarding phases of the practice. What strikes us first is that divisions are

¹¹ This summary reference ignores the notorious problems of *Sophistes* 253D. The passage is relevant, but not directly relevant, to the problems of division, having to do rather with the sharing of kinds. Campbell (*ad loc.*), who translates the passage, does not clarify nor make any clear distinction between the four procedures mentioned. He regards the first of them as referring to individuals, though in this section of the dialogue only kinds are being discussed. He gives no weight to the *au* preceding the third phase, which is regarded by some commentators as important. Cornford's somewhat confused account (262-73) I do not find helpful. Cornfordian Forms dominate it, and much of the discussion seeks to show the difference between Platonic dialectic and Aristotelian logic. J. Stenzel, *Studien zur Entwicklung der Platonischen Dialektik*³ (Stuttgart 1961) 62-71, has perhaps the most illuminating discussion. Crombie (above, note 8) 417-19 suggests that there is a confusion between class-inclusion and property statements. I offer, in outline, a possible interpretation of the passage such as would permit of the preceding interpretation of diairesis.

The passage, it seems to me, describes four aspects of the dialectician's skills or capabilities in dividing according to kinds. It refers to procedures, and not to the kinds with which those procedures deal. (These are referred to at 254B-C).

1. The dialectician sees clearly among a plurality of distinct kinds one higher kind pervading them (as several animal species are seen to belong to the genus animal).

2. In the second phase he is said to be able to look at a genus and see what species it comprises (as in the first phase he was said to be able to look at species and see their common genus).

3. Here he sees how a single kind pervades many wholes (unities having parts). This may suggest that sub-classes of a class are capable of entering into other classifications. Stenzel (67) would refer it to definition. The dialectician can see "sophistic" in all the successive divisions.

4. He sees also the kinds among which no relation exists. So he can (1) recognize the unifying feature in a plurality, (2) see how a plurality is articulated in kinds, (3) see how a kind unites similars, and also recognize dissimilars. If he has this capacity he will know what combinations are possible, what impossible, and the differing extensions of the combinations (254B-C). The man who has these generalizing and analytical perceptions is of course the dialectician/philosopher. It is perhaps worthy of note that Kant's system of classifying concepts (*Crit. Pure Reason* 435, B685) exhibits similarities. Kant recognizes three principles: (1) that of homogeneity, governing the genus under which species fall, (2) that of specification, determining the species falling under a genus, and (3) that of affinity, concerning transition from one species to another.

Our passage of the *Sophistes*, though it may assume diaretical procedures, does not describe them.

usually by dichotomies. But this is not an inflexible rule. Already in the *Phaedrus* (265E), at a time when we assume that the method had not been tested by long practice, we are told that you divide at the joints where nature dictates, and do not like a poor carver-cook attempt to break bones rather than carve. That is, you do not create your division. You find where nature has made your species divisible, as a roast is divisible. In carving your superordinate species into two (or more) parts you sever at the point of natural division. This imagery of cutting or carving reappears in the *Politicus* (287C). There we discover that we cannot always divide by dichotomy. But we know that we must divide into the minimum number of naturally existing divisions, always severing at the joints, as the victim of a sacrifice is carved at the sacrificial feast.

This same principle, of dividing where possible by dichotomy but always at naturally existing "joints" or "members," is reiterated in the *Philebus* (16C-E). There the method is represented as a divine gift mediated by a Prometheus of philosophy (Pythagoras). It is based on the fact that each and every one of the things we call "existents" is "a one and a many." That is, each kind or class or common nature or universal is at once a unity—the unity of its nature—and so determinate, and an indeterminate plurality as consisting of an indefinite number of particular instances exhibiting or partaking in that nature. We have the natural unity of the kind or class and the natural plurality of its members. So our method must be first to look for the natural unity with which we are concerned, and which we will certainly discover because it is there to be discovered (16D). When we have discovered our *idea* or common nature—the summum genus we began by assuming—then we must divide this unity into the two parts constituting it. But if we cannot divide into two then we must accept a division into whatever minimum number of sub-species may be present by nature in the species we are dividing. And we must continue our division until we reach an infima species that is no longer divisible (cf. *Soph.* 229D, 264E), i.e. a species consisting of an indeterminate plurality, all of its particulars being alike as members of one species, no group or aggregate of them being alike in such a way as to constitute another sub-species. So we have a division moving downwards from the genus we have isolated, through divisions made where

possible by dichotomy but always at a natural articulation, to an infima species the particulars of which cannot be further grouped in classes or kinds.¹²

Despite the fact, however, that we may have more than two sub-species occurring under their superordinate species at any stage of a division, dichotomy is regarded as the norm. Plato bids us (*Polit.* 259D) look for a natural break such as occurs between two bones (*diaphuê*), a break that *yields* (*hypeikousan*) to the knife of the carver. The metaphor from *cutting* persists as the characteristic term for dividing (*Phaedr.* 266A, 277B, *Soph.* 223C, *Polit.* 279B, etc.) and usually refers to dichotomy or cutting in two. As the emphasis on natural articulation would lead us to expect, the two or more sub-species must be naturally existing classes or kinds. Plato sometimes has a privative as a sub-species, as for example horned and non-horned animals (*Polit.* 265B), animals susceptible and not susceptible of cross-breeding (265E), perforated and non-perforated coverings (279D). But the division is not merely formal. It is regarded as reflecting existing kinds. A further characteristic of division is that it proceeds normally by dichotomy, interest being focused on the right-hand member of each succeeding division down to the infima species, the definiendum. The emphasis on the right-hand member is laid down already in the *Phaedrus* (266A). There it carries the implication, to which there is no later reference, that this right-hand member is the better of the two, the left hand being "*sinister*." The injunction to divide thus is reiterated in the *Sophistes* (264E), and all the divisions of both *Sophistes* and *Politicus* proceed downward and to the right. Each division is, on completion, summarized in a definition. This definition mentions the summum genus and then, successively, the specific differences which are the right-hand members of the divisions, down to the infima species or definiendum. As the procedure aims at definition rather than classification it eliminates the left-hand members of divisions. It is these in practice that may occasionally be "left without a name because the ancients were too lazy to bestow one" (*Soph.* 267D). Nevertheless they are real kinds and not merely the privatives of the

¹² For another interpretation of the *Philebus* passage, see A. C. Lloyd, "Plato's Description of Division," *CQ* (1954) 219-30, repr. *Studies in Plato's Metaphysics*, ed. R. E. Allen (London, 1965).

right-hand members. Other divisions in the *Sophistes* sometimes begin from these left-hand members (223C).

When at the end of the paradigmatic division of the angler (*Soph.* 221B) we sum up, the Eleatic Visitor remarks that not only are we now in agreement as to the name with which we began (218C), but we have also achieved a definition of the function or thing (*ergon*) to which that name refers. The definition states the summum genus, recapitulates the differentiae, and ends by naming the definiendum. Then Plato adds (only on this occasion) a curious and fanciful etymology of the name, reminiscent of the *Cratylus*, saying that the name *portrays* the activity.

In the first division of "sophistic" the kinds named are in all cases substantival. In the second division we divide not down to the class of sophists but to the sophistic craft, and formally the definition recites the adjectival characterizations of the crafts (224C). The third and fourth divisions merely introduce variations. The fifth (226A) defines not the sophist's craft but the sophist himself as "class (*genos*) pursuing profit," all classes after the summum genus being adjectivally differentiated. In the sixth, where we are reminded (227A) that we are practising the method in order to acquire *nous*, we define the craft, whereas in the final division (268C) we define the class. No importance seems to attach to the fact that we begin with a craft and yet sometimes define a class.

In the *Politicus* (267B) two stages of a division are, apparently by inadvertence, omitted in the recapitulating definition. At a later stage in the argument (279B) we plunge into a summary division that, while it would yield a definition, is not made to do so. Instead it reviews the left-hand members to show that the auxiliary crafts of kingship have not been eliminated, as they are later eliminated (303D ff.). So it would seem that the method, though following a clearly established pattern, was not a rigorous one from which there was no deviating. It was meant to give us insight, not answers.

To sum up, the purpose of the method of division is to clarify the meaning of a name or term *by definition*. For we may accept the use of a term and agree on its reference, but we must also be able to describe the function or thing to which it refers if we are to "give an account." We may accept the term "sophist" and agree on its application to

persons like Protagoras (of whom however you may be an admirer and I a detractor) but it is only when we have defined the class of sophists, agreeing on the precise nature of their function, that there can be no ambiguity, no misunderstanding between us in our discussion of the class. So the definition achieved by diairesis is much more than an agreement to accept boundaries between words and rules governing their usage. It is a description of things or kinds really existing, giving all their essential characteristics, and by implication frequently passing value judgments, as in the *Sophistes*.

To sum up, the first step in the procedure is to move upwards from the definiendum to its summum genus. Though it is suggested that this occurs by a sort of *synopsis*—by an over-all survey of similars and dissimilars—no formal procedure is prescribed, and it would appear that we are to *see* or intuit. The sophist practises a skilled activity, and all activities involving peculiar skills are to be subsumed under the genus *technê*. It may be that Plato considered this a practical and adequate solution. In any case we are not told how he would proceed if *technê* had to be defined and so subsumed under a yet higher genus. Nor indeed are we told whether we would eventually arrive at an ultimate summum genus or summa genera, nor whether there are (highest) genera that are not definable. But much more curious is the fact that, though the *Sophistes* is written as much to discuss the relations between genera as to illustrate the method of division, these two themes remain independent. We are not told how the method of division can be used to investigate the relations between and among summa genera, nor how the genera of division may be subsumed under or otherwise related to those “very important kinds” that have a central role in the digression on not-being. Suffice it to allude here to the difficulties of conceiving how the “vowel kinds,” and the “consonant kinds” we must assume as associated with them, are to function in horizontal association and how their status in diairetical structure will influence the use of concepts in statement. This problem, and especially the problem of horizontal relations which is uppermost in Plato’s mind in the central digression, is not related to the method of division.¹³

¹³ Crombie (above, note 8) 373 suggests that there should be some discoverable relation between the method of division and the sharing of kinds. In fact Plato makes *no* attempt to relate them. Division makes us “more dialectical.” If we are dialecticians

No attempt is made to define by division the "very important" kinds, though their names conceal more ambiguities than a class name like "sophist." The method used to clarify their meaning is largely to see how they can be used with consistency in statements. This despite the fact that at least some of them could have been defined by division. A rudimentary division of *kinesis* occurs in the *Laws* 893B ff.).

We must therefore regard the method of division as designed to define. It defines by moving downwards from genus to infima species, dividing at each step when possible by dichotomy but always according to the natural articulation of the kind or class that is divided. It does not suffice to divide into two parts; for a part is not necessarily a naturally existing kind. Divisions must not (1) leap over any stage of division nor (2) by haste in dividing a species into its sub-species make an unnatural division. There is no requirement that the definiendum always be an infima species, though in the illustrations of the *Sophistes* and the *Politicus* it always is. But we must ensure (this is emphasized in the *Philebus*), if our division is to be complete, that it has arrived at an infima species which is "uncuttable" (*atomon*) by our cutting method. Only then may we accept an indeterminate plurality, a class comprising within itself no sub-class but only members of the class.

When we come to consider Aristotle's criticism of this method we shall see that, though he is willing to concede it some merits, he finds it to have major defects as a method of philosophical inquiry that is to yield demonstration or proof. Yet Plato recommended it, and had it practised in the Academy, as a method. It is however obvious that he does not conceive of method as does Aristotle. He does not suggest division as a fool-proof, open-and-shut method of solving problems by following rules. He thinks of it as a method to develop dialectical skills and a dialectical temper (*Polit.* 285D-E), and particularly to develop the finesse required to discuss incorporeals, the highest entities and

we will know what kinds are capable of "sharing" or entering into mutual relations, but no rules are spelled out for us. Sharing occurs in statements. In the brief episode of logical appraisal (*Soph.* 261D-264B) statements are regarded as weaving together of words rather than kinds (cf. *Theaet.* 202B). Though these words must stand for or have reference to existent kinds, it is the *symploké* or statement that is true or false. It is our unit of judgment.

values.¹⁴ It is to these entities that the language we use in discussion refers, and it is by practice in dialectical discussion that we are enabled to discuss such entities. For the skill of the dialectician is conceived as being like all other skills. The skill of the potter does not enable him to mass-produce perfect pots mechanically. It does enable him, if he is both skilled and gifted, to produce a pot that is excellent in its kind, in some cases a *master-piece*. So much Plato expects of his method. It is not meant to grind out ultimate truths, which are not for Plato in the ordinary sense communicable. It is meant "to make better dialecticians in all contexts" (*Polit.* 285D).

Let us now turn to Aristotle's criticism of the method, not to attempt once again to review it in detail,¹⁵ but simply for what light his remarks throw on the method itself. He does not reject it holus-bolus, in repeated polemical attacks, as he does the Theory of Ideas. His feelings are obviously mixed. It is the method in which he has been trained and from which his own logical method has developed. Its usefulness in philosophical discussion, though he would restrict it more than does the Academy, he is not disposed to deny. So he sets himself to delimit its territory, to redefine its steps, and to alter its purpose.

Aristotle felt with good reason that his discovery of the syllogism revolutionized logical method, and Cherniss (p. 30) has suggested that "the fact that Aristotle thought it necessary after having outlined his own system of logical proof to refute the pretensions of the method of diairesis and that method alone, indicates that the latter was the only systematic 'logic' with which at this time the field had to be disputed." Aristotle's criticism of the method of diairesis makes three principal points against it:

1. Division is "a sort of weak syllogism" (*An. pr.* 46A33). It attempts unsuccessfully to do what the syllogism does successfully in that it affords proof. The fact that all living creatures are mortal or immortal does not justify us in subsuming the species "man" under mortal and concluding that man is a mortal creature; and the fact that a respondent, as in the Platonic dialogues, concedes man to be mortal establishes nothing. The implied minor premiss states that "all living creatures are mortal or im-

¹⁴ This is what mathematical studies are supposed by the Neoplatonists to enable us to do (*Porph. Vita Pyth.* 47).

¹⁵ Aristotle's criticism is discussed in detail by Cherniss I-82.

mortal," and so the conclusion too must be disjunctive. As there is no indication in the dialogues that Plato thought he was *proving* anything by diairesis this criticism only shows that Aristotle thought the method susceptible of improvement as a consequence of his discovery of the syllogism.

2. The second criticism is more directly relevant. Aristotle argues that division aims at, but does not achieve definition. For (1) the attributes predicated in definition must not be properties or accidents but parts of the essence of the subject of which they are predicated in definition (and division offers no means of assuring that they are essential attributes), and (2) the essential attribute must have the same extension as the definendum, no stage of division being omitted. We cannot otherwise ensure the unity of definition. (*An. post.* 83A1-93B20; Ross, *Aristotle* [London 1923] 50-51.)

3. Thirdly Aristotle argues that division has its uses as a heuristic method (*An. post.* 96B25) but that it must follow certain rules before it can be used to define; it then yields a non-causal definition.

It will be seen that in his criticisms Aristotle is assuming a division such as is practised in the dialogues—a division the object of which is definition and which moves downwards, typically by dichotomies, each succeeding dichotomy yielding two attributes of the species divided, down to the infima species to be defined. Aristotle does not suggest how for Plato first principles are known, nor what relation exists between his genera and yet higher genera. We may assume that Plato did not discuss these problems in the context of division. So Aristotle's criticism may be seen as confirmation of the conclusions regarding diairesis we have drawn from what we are told and what we find exemplified in the dialogues.

It would perhaps be the part of wisdom to restrict ourselves to the description of diairesis in the dialogues. But the theories of Stenzel (*Studien* [above, note 11] 47-122, *Zahl* passim) have had, and continue to have, such influence that some reference must be made to them. We shall be concerned however only with passages in Plato's written works on which he bases, or which he uses to support, those theories. We shall not be concerned with Aristotle and Aristotelian commentators.

Let us begin by asking why Plato's divisions are where possible dichotomic. Diès (above, note 3) xxiv, argues that dichotomy is a

natural tendency of Plato's thought. "Que ce *diairein* ait tendu spontanément à la dichotomie, au *dicha diairein*, comment s'en étonner dans une philosophie qui se définit essentiellement par le dualisme âme et corps, intelligible et sensible, réalité et apparence? N'est-ce pas d'ailleurs toute pensée qui obéit spontanément à cette loi d'antithèse dichotomique, par où l'esprit semble vouloir prolonger le plan de symétrie sur lequel est bâti le corps?" Plato could have followed this tendency and could have established a more rigorous method if he had made his divisions by dividing each successive species into two sub-species, the one being a differentia of the definiendum and the other simply its privative. This would have achieved the purpose of definition. Instead Plato is willing, as we have seen, to forego dichotomy if the species to be divided falls naturally into more than two sub-species. Division must occur at naturally existing "joints"; that is, each species of a superordinate species must be not a logical species but a real entity, independently existing. The fact that the kinds discovered must be existing kinds (even if perhaps not always universals or Ideas)—it being more important that they be naturally existing than that they be divisible by dichotomy—seems to me to tell against Stenzel. It also suggests that Plato had in mind a division into real classes, even when his divisions appear to yield properties. It would appear that division is governed by natural articulations rather than by the symmetries of a mathematical order. That is, division is not a formal analysis nor is it determined by a number structure. It is an inquiry into the structure of existents.

Stenzel (*Zahl* 11-18) takes as his starting-point for the reconstruction of Plato's metamathematics two passages of the *Philebus* (16D-E and 18B ff.) which are always quoted in this connection. These passages are not without their difficulties,¹⁶ and merit examination to see if they justify Stenzel's interpretations. Socrates embarks (14B) on a classifying or cataloguing or exhibiting of the varieties of "goods." He is brought up short by a problem that is prior to that of classification. How can we say that many are one and one many (14C)? This problem is at first interpreted not as we would expect in terms of a genus and its species (and so of classification), but of a one (species,

¹⁶ Cf. R. Hackforth, *Plato's Examination of Pleasure* (Cambridge 1945) 24-26.

kind, universal, idea) such as Man, Ox, the Beautiful, the Good, and the indefinitely many particulars constituting such unities. These unities are said to involve problems of the eternal existence of the Idea, its self-identical nature, and its presence in its particular instances.

A method of attacking, though not of solving, such problems is then proposed (16c). Whenever we speak of an "existent" we mean a unity-and-plurality with a "built-in" characteristic of being at once limited (and so a unity) and unlimited (and so an indefinite plurality). This is true for our universe and for all things having common names. This being the structure of nature, we should attack our problems by looking for a common nature or Idea. It is implicit in the structure that there are such unities. When we have found our unity we should then divide, if possible by dichotomies but only when they are naturally given, until we reach an infima species which may then be left comprising unlimited (i.e. an indefinite number of) particulars.

So far the unity and plurality we are discussing has none of the mathematical character of Aristotle's "Theory of Ideas." The Ideas are indeed each a unity. Some of them, as we would expect in an ordered universe, are susceptible of further break-down (here apparently tending rather towards classification than definition). The infimae species are numerically indeterminate. The Ideas are not numbers nor are they said to derive from numbers. *Diairesis* is a method of analysis. The *Philebus* thus far offers no grounds for Stenzel's reconstructions. It is the examples which follow that give rise to trouble.

The first two examples—the unity of vocal utterance and the unity of musical sound—are offered us as examples for *diariesis*. They are genera that allow of division. The third example is offered as an example of a case in which we begin with an *apeiron* or indeterminate plurality and must use our method to arrive at a unity. What does Plato represent Theuth as doing? Apparently he begins to attend to and reflect on human speech. First he discerns vowels in what he had earlier regarded as indeterminate sound. Next he isolates semi-vowels and mutes. Then he divides each of these classes into its distinct sound-members, and to each of these sound-members he assigns as symbol a letter of the alphabet. To the resultant 24 letters he then gives a class-name identical with the term used to designate any member of the class—*stoicheion*. We are apparently to under-

stand that he has moved from an *apeiron* of indeterminate sound to a genus "letters" under which all the letters, in their three classes, as symbols of sounds, are to be subsumed.¹⁷

Whatever the difficulties of the illustrations offered—and they are considerable—it is clear that Plato wishes us to practise an analytical method similar to that of the *Sophistes*. What seems to lend color to Stenzel's interpretation is that we are repeatedly told to look for a unity or a definite number; that in any indefinite plurality—*peras* and *apeiron* are terms having connotations of number theory—we are to look for number, if we are to be *numbered* among persons having any insight. But here we are being asked simply to analyze. Each step of analysis imposes number. If we isolate classes the classes become numerable. We are imposing a limit on what was hitherto unlimited, discovering order and structure in what had seemed chaos.

There is an arithmetical, not a geometrical, coloring to the language of this passage. There is talk of unities and aggregates, of pluralities—limited *qua* numerable—and of numerically unlimited pluralities. But it offers no grounds for the theories of Stenzel because (1) diairesis by dichotomy, on which Stenzel bases his reconstructions, is not referred to in the passage; and (2) there is no suggestion that the classes or kinds or Ideas referred to are numbers, nor that the underlying structure is numerical. This is not to deny that in his later years Plato entertained number theories, nor that a mathematization of the Theory of Ideas occurred in the Early Academy. It is however notoriously difficult to find warrant for such theories in the dialogues. Certainly diairesis cannot serve as a foundation stone for any such reconstruction.¹⁸

We have already considered what Plato tells us of his method, and how he exemplifies it in the dialogues. Let us now consider what it in fact achieves, in terms of Plato's aims. The analogical character of his

¹⁷ In an interesting article on "Letters and Syllables in Plato," *PhR* 69 (1960) 431–51 G. Ryle suggested that this analogy is to be understood of spoken rather than written utterance. Against his thesis D. Gallop in "Plato and the Alphabet," *PhR* 72 (1963) 364–76, argues, to my mind convincingly, that the analogies do not dispense with written letters. He remarks of the letter/syllable passages in the dialogues that "it may be doubted whether any single thesis is common to them all." It is only on this assumption that we can make sense of the different uses of the analogy.

¹⁸ Ross 194–205 discusses Stenzel and his theories. Here we are concerned with the authority Stenzel discovers in the dialogues, especially where connected with dialectic. The evidence of this kind is slight.

thought is here as elsewhere apparent. He begins the diairesis of the *Sophistes* by offering a paradigm or analogy. A salient characteristic of the sophist and one to which Plato often, disparagingly, alludes is that he practises his art for money. He is not a disinterested person. He is always angling for something. So let us as a first step see what it is in the activities of an angler that makes us say we distinguish in the sophist traits of resemblance. Obviously the similarity lies not in tackle nor in catch. It is something about the activities of the two men. So let us take the activity of the angler at its highest and most general level, at the level of specialized activity or craft; and let us see by analyzing the generic articulation of "craft" or *technê* how its classes and sub-classes, becoming always more restricted and more specific, enable us in the end to separate off the angler. When we arrive at a class including anglers and only anglers we can then look back at the classes under which his class fell, one by one, but in reverse or ascending order. The serial enumeration of these classes will give us a "picture" of the angler. It will tell us precisely where his special *technê* falls in the hierarchy of craft activities. This procedure we are going to call "giving an account" or defining an ultima species. It provides the kind of information we want. It enables us to see what are the direct ascendants or superordinate species of our definiendum, and what members of the larger family of its kind we exclude from its direct filiation.

Once we have arrived at this paradigm-picture it is easy for us to put our finger on the point (or on *a* point) at which the ways of angler and sophist separate. The angler looks for his catch in the watery element, the sophist for his bag on dry land. So our new analysis, with the sophist for definiendum, must begin at this parting of the ways. It will lead, through successive dichotomies, to our first definition of the sophist as an expert practitioner (or craftsman) of the hunt after rich young men, for money. Just the definition we expected, the obvious way in which we always see the sophist.

This definition however was not the only possible definition suggested by the angler paradigm. It would have been equally possible to put one's finger not on the "craft of acquisition by seizure" but on its fellow of the dichotomy, "craft of acquisition by exchange or barter." So from this latter we begin our second division.

All the subsequent divisions of the sophist are generated by departures from differing points either in the paradigm or in some preceding division. A glance at the tables of any commentary will show how these divisions originate and develop. We need not again describe them in detail. Important for our purpose is only to observe that this exploration of patterns of class-inclusion does not appear to be methodical or exhaustive of the possibilities. We note however that that skilful divider, the Eleatic Visitor, at each division leads us to a deeper appreciation of the nature and complexity of our problem. If the sophist is a money-maker what is he selling (division 2)? Is he operating as a wholesale merchant of his product, or as a shopkeeper? Selling his own wares or those of others (divisions 3 and 4)? Or are we on the wrong track altogether? Earlier, by excluding it from our dichotomy, we said that the sophist's activities could not fall under "the art of combat." But the sophist talks to win, combatively; and this eristic practice is characteristic of the man. It must therefore be explored (division 5). When however we have defined the sophist as an eristic we have afterthoughts. These lead us into a new and more ambitious division, demanding a sub-paradigm of its own; a division that leads us to recognize the cathartic type of sophist who quite obviously resembles Socrates. Clearly our divisions must have been superficial. If we must concede to the sophist traits of resemblance or common characteristics with Socrates, then we must look at the phenomenon "sophist" much more carefully than we have so far.

As a preliminary to the final division we scrutinize our preceding divisions and discover (apparently by inspection) the one point at which the ways of philosopher and sophist really diverge. The sophist is a disputant. It is a matter of indifference to him whether the thesis he maintains is true or false. And so we are launched into the central inquiry of the dialogue. We must ask ourselves whether, and how, we can distinguish between true and false statements; and if indeed it is possible to make a statement that is false, or does not correspond to fact, or does not reflect reality, or in Plato's terminology, "says what is not."

To conclude, the method of diairesis is an exploratory method, proceeding at least formally by analysis of the structure of classes or kinds. It produces insights, not proofs. It can be successful only in

the hands of the practised practitioner, and even in his hands only in the course of careful and patient exploration. It is claimed for the method that it reveals what we mean by the definiendum, what it essentially is. The moves of the method are propositional, but Plato has constantly in mind existent or real kinds that are designated by his terms.

What then of the “very important kinds”—the kinds discussed in the *Parmenides*, discussed in the *Theatetus*, assigned a role in the *Sophistes*, appearing as soul-constituents in the *Timaeus*? The dialectician must be able to deal with these kinds too, but Plato nowhere attempts to relate them to the kinds of diairesis—the training ground of dialectic.¹⁹

¹⁹ See G. Ryle, “Plato’s *Parmenides*,” *Mind*, n.s.48 (1939) 129–51, 302–25; repr. *Studies in Plato’s Metaphysics*, ed. D. E. Allen (London 1965) 97–148.