BRILL

Collecting the Letters

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ABSTRACT

In this paper I reexamine Plato's method of collection and division, and spe-
cifically of collection. If collection and division are simply methods for map-
ping out genus-species trees, then it is hard to understand why Plato is so excited
about them. But a close study of Plato's examples shows that these methods are
something broader, and shows why Plato would regard collection as an impor-
tant tool for coming to know "elements" in any domain of inquiry. In the first sec-
tion I focus on a notoriously problematic example of collection from the *Philebus*,
Theuth's discovery of the letters of the alphabet; I show how Plato interprets this
discovery as a process of collection, and draw conclusions about what Plato takes
collection to be. In the process, I try to bring out Plato's analysis of what is in-
volved in learning to read and write a language, which he takes as paradigmatic
for other knowledge. In the second section, stepping back from the *Philebus* pas-
sage and applying its lessons, I describe the function of collection and division,
for the late Plato, in coming to know "elements," including the Forms, or the
most basic Forms. Reflection on Plato's use of collection suggests a (relatively
non-mystical) account of what it is to know non-complex intelligible entities, and
of how we can come to know them. I also use Plato's descriptions of collection
and division to suggest a Platonic context for the notion of the *separation* of the
Forms, to which the late Plato remains firmly committed.

I

At *Philebus* 16b5-18d2 Socrates describes the way or method (ὁδός)
through which all the discoveries of the arts have been made. At 18b6-d2,
in particular, he illustrates this method in the work of Theuth, the legend-
ary Egyptian inventor of writing and the alphabet. But it has been noto-
riously difficult to explain how the story of Theuth illustrates what it is
supposed to illustrate.

The problem is that Socrates' method is twofold: he describes first a
path "from the one to the many," and then a reverse path "from the many
to the one." It is customary to call these respectively the methods of divi-
sion (διαίρεσις) and collection (συναγωγή), names Plato uses together in a
parallel passage of the *Phaedrus*.[1] The story of Theuth is introduced expressly

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[1] The terms συναγωγή and διαίρεσις are used together at *Phaedrus* 266b4. For argu-

to illustrate the method of collection, the "contrary" of what was discussed before (18a9-b4), but commentators have generally been puzzled about why it should illustrate collection rather than division. Indeed, they have been puzzled about collection as such; and it has been suggested that Plato is really describing only a single method, the method of division.

Collection is supposed to take place when "someone is compelled to grasp the infinite [ἄπειρον] first": to collect well, he "must not look imme-diately to the one, but must recognize that each multiplicity is delimited by some number, and from all these finally reach a one" (18b1-4); just as, conversely, if we begin by dividing some one, we should make finite divisions and subdivisions to establish precisely how many it is, before admitting that it is also infinitely many. The account of collection is, as stated, obscure, but the story of Theuth is supposed to clarify it. Theuth begins by recognizing that φωνή (I will provisionally translate this as "vocal sound") is infinite (as it was already said to be in the discussion of division, 17b3-4). He does not then immediately proceed to recognize some one thing present in all vocal sound, but rather "he recognized that the vowels [φωνήεντα] in this infinite are not one but many, and then again that there are others [liquids and nasals and sibilants] which share not in φωνή but in some kind of sound [φθόγγος], and that these too have some number; and he set apart what we now call ἄφωνα [stops] as a third kind of letter; then after this he divided those which are ἄφθογγα and ἄφωνα down to each individual [letter-type], and he divided the vowels and the intermediates in the same way, until, having grasped their [total] number, he gave the name 'letter' to each and all of them" (18b8-c6); then, having collected the letters, Theuth reflects on the single knowledge that grasps the whole system of letters, and calls it the art of letters or of writing [γραμματική].

A "letter" here [στοιχεῖον or γράμμα] is not necessarily a mark on paper, but, in the first instance, a phoneme, an indivisible unit of vocal sound (thus Aristotle defines στοιχεῖον as φωνὴ ἀδιαίρετος, *Poetics* c20 1456b22): it is clear that Theuth, having begun with a bare sensory perception of vocal sound in its infinite multiplicity, ended by collecting the genus "letter" or "phoneme," and that discovering this genus was a necessary pre-

ments that the methods of the *Philebus* are supposed to be the συναγωγή and διαίρεσις referred to in the *Phaedrus*, see E.E. Benitez, *Forms in Plato's Philebus* (Van Gorcum, 1989), pp. 45-47; the parallels that Benitez assembles seem to me decisive. Plato uses forms of διαιρεῖν for the passage from the one to the many at *Philebus* 15a7, 18c3, 20a6, and 20c4, and forms of συνάγειν for the passage from the many to the one at 23e5, 25a3-4, and 25d6.

condition for inventing a conventional system of marks on paper, with a type of mark corresponding to each type of phoneme. But it is not clear how Theuth was able to make this discovery. As Hackforth complains, "what Theuth has done is merely to give a name to a generic notion [i.e. 'στοιχεῖον'] which must have been present to his mind from the outset."[2] Although Plato claims that we can *either* begin with a known genus and divide until we reach its *infimae species, or* begin with *infimae species* (or their individuals) and collect them until we apprehend the genus they belong to, Hackforth thinks that Plato's second alternative is chimerical. If I take the species of a genus (say the different kinds of animal or of letter), and ask for the genus, then in order to select these examples for inquiry, I must from the beginning have selected them as species of that genus, and so I must already have the generic concept, even if I have not yet given it a name. So there are not two methods but only one: "you must start with the conjoint apprehension of a Genus and an indefinite Many, and proceed by division until you reach *infimae species*, where your task ends."[3] It is this method, Hackforth adds, that Plato unwittingly winds up illustrating in the Theuth example: to know what to collect, Theuth must always have had the concept of letter, and Plato shows him dividing it (note "διῄρει" at 18c3) into its three main subclasses and then into their *infimae species*.

Hackforth's objection has been a notorious difficulty for the last fifty years; and I think it can be solved only if we reexamine, both what collection and division mean, and what it was that Theuth was trying to collect or to divide.

To begin with the second question: Plato says that Theuth began by "recognizing φωνή as infinite" (18b6), so it would seem that it is φωνή that he ends by collecting as a unitary genus. Indeed, we have been told earlier, in the discussion of division, that spoken φωνή is both one and infinitely many (17b3-4), and that division begins with φωνή as a unity and ends by dividing it into its *infimae species*; so that Theuth's treatment of φωνή would be simply the reverse of this division. However, the generic concept that Theuth ends by discovering is not φωνή but στοιχεῖον (18c6); these terms are definitely not equivalent, and, while Hackforth is certainly right that Theuth must have had a concept of φωνή as a unity from the beginning, he need not have had the concept of στοιχεῖον. Hackforth, in

[2] R. Hackforth, *Plato's Examination of Pleasure* (Cambridge University Press, 1945), p. 26.

[3] Hackforth, ibid.

treating the Theuth story as a reverse of the division of φωνή, is compelled to assume that φωνή is the genus whose *infimae species* are the different letters or phonemes, so that every φωνή would be either a vowel or a continuant or a stop. But, for several reasons, this must be wrong. Theuth originally recognizes φωνή simply by hearing spoken language: since no written language yet exists, and since Theuth has not performed the analysis of language that will lead him to the concept of στοιχεῖον, what he initially recognizes is not a set of units of sound, but simply continuous speech. He recognizes φωνή as ἄπειρον, not because there are several kinds of indivisible φωναί, but because there are an unlimited variety of φωναί of all lengths.[4] In fact Plato avoids the plural φωναί, preferring to speak of φωνή in the singular as something that is both one and infinitely many; so perhaps it would be better to speak of many sections of φωνή or many modifications of φωνή rather than of many φωναί; but if we are to speak of φωναί, then syllables and words have at least as good a right to be called φωναί as individual letters do. I do not know of a single Greek text where φωνή has the restricted meaning "phoneme": if letters are treated as φωναί, they are only one particular kind of φωναί, as in Aristotle's definition of στοιχεῖον as φωνὴ ἀδιαίρετος (*Poetics* c20 1456b22, cited above). But in fact it is doubtful whether letters, and particularly consonants, are φωναί at all: the pseudo-Aristotelian *Problems* describe letters instead as πάθη τῆς φωνῆς, and say that consonants combine with vowels to produce the plurality of utterances (διάλεκτοι), which are nonetheless expressions of one and the same φωνή (*Problems* X,38-9 895a4-14). And Plato, here in the story of Theuth, expressly denies that consonants μετέχειν τῆς φωνῆς (*Philebus* 18c1), so he can hardly be regarding them as species of the genus φωνή: the point is that these letters by themselves either produce no sound at all, or, like liquids and nasals and sibilants, produce a sound (φθόγγος) which is not properly φωνή, because it is not a modulation of a

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[4] For a similar conclusion that φωνή here can refer to speech longer than a single phoneme, see Gisela Striker, *Peras und Apeiron: das Problem der Formen in Platons Philebos* (Vandenhoeck und Ruprecht, 1970), pp. 24-30, where her "Sprache" corresponds to my "continuous speech" and her "Laut" to my "phoneme." But Striker's overall interpetation of the passage is quite different from mine. On the point immediately at hand, Striker says that Theuth's recognition of φωνή as ἄπειρον was a recognition "daß die gesprochene Sprache sich in unendlich viele Lauteinheiten einteilen läßt, die in einer begrenzten Anzahl von Arten zusammengefaßt werden können" (p. 25). I think that Theuth in recognizing φωνή as ἄπειρον was just noting the obvious fact that there is an unlimited variety of types of φωναί of all lengths. What was new was Theuth's discovery that φωνή could be reduced to a *finite* multiplicity, and this (rather than a recognition of the ἄπειρον) is what the cited passage of Striker really describes.

continuous stream of air forced out through the larynx; they produce full-
fledged φωνή only in combination with vowels.[5] So φωνή in the Theuth
story is continuous speech, and Theuth discovers the letters as things "in"
speech (ἐν τῷ ἀπείρῳ, 18b8-9), which are not necessarily *instances* of
speech. The στοιχεῖα τῆς φωνῆς are, here as so often, a paradigm for ἀρχαί
in any realm of objects, and Theuth is depicted, not as dividing speech into
its kinds, but as discovering the ἀρχαί out of which speech is constituted.

But how does he discover them? Ackrill's answer, in "In Defense of
Platonic Division," was "by dividing."[6] Against Ryle (who had assumed
that διαίρεσις was always the division of a genus into its species, and had
inferred that it could not have been of any philosophical interest), Ackrill
argued that διαίρεσις for Plato covered a whole family of methods of analy-
sis that could lead to defining a specific term or to clarifying a general
concept: the analysis might be the division of a genus into its species, or
the division of a word into its different senses, or, as here, "the division
of language into its elements" or minimal constituents.[7] Now Ackrill is
surely right, both that the procedures Plato describes in *Philebus* 16b5-
18d2 are meant to be collection and division, and that what Theuth does
is not simply to move up or down a genus-species tree; and so he must
be right that collection and division should be understood more broadly
than this. But Theuth's procedure cannot be division, since it is the "con-
trary" (18a9) of the procedure of division described in 16b5-17e6. It must
be a passage from the infinitely many through the finitely many to the one,
and thus a "collection" in some sense broader than moving up a genus-
species tree; and this despite the fact that Theuth "divides" or distinguishes
the different stops, and the different continuants and vowels, at 18c3-5.
How are we to understand this kind of collection?

Other texts of Plato help to show that συναγωγή is not always a matter
of collecting genera from their species or individuals; or, at any rate, that

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[5] Similarly at *Theaetetus* 203b2-8, σ is ἄφωνον, merely a ψόφος and not a φωνή,
while β is neither a φωνή nor even a ψόφος: among the στοιχεῖα, only the seven vowels
are φωναί. Aristotle in *Poetics* c20 gives essentially the same classification, dividing
στοιχεῖα into φωνήεντα and ἡμίφωνα and ἄφωνα. Similarly Dionysius Thrax (*Ars
Grammatica* c6) divides στοιχεῖα into φωνήεντα and σύμφωνα, and the latter again
into ἡμίφωνα and ἄφωνα: the φωνήεντα are so called because they "produce a φωνή
of themselves," the σύμφωνα because "they do not have a φωνή by themselves, but
produce a φωνή when they are combined with the φωνήεντα".

[6] In the volume *Ryle*, in the series "Modern studies in philosophy" (edited by Oscar
P. Wood and George Pitcher, Macmillan, 1971), pp. 373-392; now reprinted in
Ackrill's *Essays on Plato and Aristotle* (Clarendon Press, 1997).

[7] Ackrill (in the *Ryle* volume), p. 380.

it is not always perspicuously so described. This is clearest from an exam-
ple of collection that Plato gives in the *Statesman*, in explaining how chil-
dren learn to read and to spell, that is, to decipher the individual letters in
written combinations so they can pronounce what they see, and conversely
to detect the individual phonemes in audible speech so they can write
down what they hear.[8] Plato supposes that the children can already rec-
ognize the letters when they see them or hear them in certain simple and
familiar syllabic combinations, but that they become confused and cannot
discern the same letters when they see them or hear them in unfamiliar
or more complicated syllables (277e2-278a3). In such a case, Plato says,
the right method for teaching the children to discern the letters even in
the initially confusing syllables is to present the confusing syllable side-
by-side with a familiar syllable containing an identical letter, and then "to
show that the same likeness and nature is present in both combinations,
until the ones that were gotten right [τὰ δοξαζόμενα ἀληθῶς] have been
displayed next to all the unknown ones; and when these have been dis-
played as models, they will bring [the children], among all the letters in
all the syllables, to name the one that is different as different from the
others, and the one that is the same as the same and always alike to itself"
(278b1-c1). Plato describes this method of displaying the same letter in

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[8] What Plato says is that the children are coming to be γραμμάτων ἔμπειροι (277e3-
4), and that they learn to discern the στοιχεῖα within the συλλαβαί. The large majority
of scholars – at least Cousin, Campbell, A.E. Taylor, Skemp, Guthrie, Crombie, and
Benardete – have taken this as referring only to deciphering written letters (learning to
read), and not also to distinguishing spoken phonemes (learning to spell). But there is
no justification for this in Plato's words (perhaps some scholars have thought, wrongly,
that γράμματα are necessarily written), and Christopher Rowe, in his recent translation
(Aris and Phillips, 1995), glosses "becoming γραμμάτων ἔμπειροι" as "acquiring skill
in reading and writing," which is what the phrase would normally imply. Everything
that Plato goes on to say applies to both cases, though some remarks would go more
smoothly with one case, and some with the other. The inclusive interpretation is sup-
ported by a parallel text in the *Theaetetus*: when you learned γράμματα as a child,
what you were learning was "to discern each of the letters by itself both in sight and
in hearing, so that their [different] positions might not confuse you, when they are spo-
ken or when they are written" (*Theaetetus* 206a5-8). The two cases are closely anal-
ogous, and even if Plato has one case chiefly in mind in the *Statesman* passage, the
procedure of learning that he wants to illustrate would work the same way in both.
Plato talks about learning to spell or to discern the phonemes within audible speech
in the Theuth passage of the *Philebus* and at *Theaetetus* 207d8-208b6; he talks about
learning to read or decipher the letters in written texts at *Republic* II 368d1-7 and III
402a7-b7.

two syllables as collection, συνάγειν: "the same thing, being present in something else at a distance, is gotten right and collected [δοξαζόμενον ὀρθῶς καὶ συναχθέν], and produces a single true opinion about both together" (278c4-6).[9] In this example, as in more straightforward examples of collecting a generic nature from its species or individual instances, I bring two or more objects together for comparison, and by doing so I notice some aspect in which they are alike, so that I am brought to awareness of a nature identically present in the different objects – the generic nature "animal" present in a dog and a horse, or the letter α present in the syllables βα and γα. Collecting α could in fact be described as an instance of collecting a genus: if, instead of saying that βα and γα are similar *in respect of* α, I say that the α in βα is similar to the α in γα, then in recognizing the common nature I am collecting the genus α from its individuals, or from its species α-preceded-by-β and α-preceded-by-γ. Nonetheless, this is not a perspicuous way to describe what I am doing in collecting α and the other letters, which is to learn to recognize the letters within a syllable βα or γα, and thus to understand the syllable as resulting from the letters (so that I can pronounce it, or spell it, correctly). Plato speaks of the children as "discerning" the letters (διαισθάνεσθαι, 277e7), and the point must be that they are initially presented with the syllable as an undifferentiated whole, and must learn to distinguish the β-component from the α-component within it (whether by sight or by hearing). I learn to distinguish βα into its components just by comparing the syllable, both to other syllables containing β and to other syllables containing α. So, although I can say that I collect the genus a from individual α's, those individuals were not given to me prior to the act of collecting: I come to recognize both the genus α and the individual α's by comparing the different syllables that contain an α.

It is clear that this text from the *Statesman* helps to show in what sense Theuth was "collecting" when he collected the many particular letters, before collecting the single genus "letter." As we have seen, Theuth was initially confronted, not with many neatly separated phonemes waiting to be clas-

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[9] I take συναχθέν in 278c6 as supplementing ἐν ἑτέρῳ διεσπασμένῳ δοξαζόμενον ὀρθῶς, not as going with the following περὶ ἑκάτερον. But however we construe the sentence (it has several difficulties including a textual question), there is a συναγωγή, a "collection" or "bringing together" of the same letter in the two syllables, and this act of collecting is, or is intimately connected with, the act of recognizing it as the same in both. For why Plato insists on speaking here of "true opinion" rather than of knowledge, see Section II below.

sified, but with the infinite variety of continuous speech (φωνή). The only
way he could discern the letters within all this sound was to compare dif-
ferent segments of speech, presumably syllables, and to notice what elements
of sound they had in common. Theuth was thus doing for the first time
what the children learning their letters repeat under the guidance of their
tutors, in discerning the different phonemes in spoken language. A πρῶτος
εὑρετής like Theuth was needed to compare the different syllables of spo-
ken language, and to collect the particular letters or phonemes within
them, in order to establish the writing-system that the children are now
learning. For Theuth to do this, without a guide, would of course be much
more difficult than for a child to do it now, and Plato has chosen in Theuth
an excellent example of the difficulty and importance of collection.

   To underline Plato's point about the difficulty and importance of Theuth's
task, it is worth noting that, in modern scholarly opinion, the invention of
alphabetic writing was roughly as Plato describes it, except that, by omit-
ting any pre-alphabetic writing, Plato telescopes the process so much that
he makes it hard to imagine how anyone could have performed the required
collection. Plato speaks as if Theuth had simply discerned the repeating
phoneme-types within the continuous stream of φωνή, and realized that all
φωνή could be reduced to them. But it is intellectually more plausible, and
historically truer to the Egyptian writing-system and to other early writing-
systems that we know of, for there to be several stages of analysis: first
speech is analyzed into words, then words into syllables, and then sylla-
bles into phonemes, and different writing-systems record different levels
of analysis. At the first stage, each word might be represented by a single
sign. At a later stage, when a single syllabic constituent is recognized
within many different spoken words, a single sign (perhaps a sign used to
stand for this syllable when it forms a whole word by itself) can be used
to represent the same syllable in any word that it occurs in: this might
first arise as an *ad hoc* device for representing hard-to-symbolize abstract
words and inflectional morphemes by rebus-writing, but once sufficiently
many syllable-types have been collected, in principle every word could be
reduced to them. Only by a further analysis are individual phonemes dis-
cerned within the syllables. Sometimes a given syllable is or becomes
monophonemic, and the monophonemic "syllable" can then be recognized
within other syllables; or the sound recognized as the first phoneme of one
syllable (and represented by the sign for this syllable) is also recognized
within others. If sufficiently many phoneme-types are collected in this
way, all syllables can be reduced to them, and a purely alphabetic system
of writing becomes possible. What actually happens in Egyptian is an

unsystematic compromise: while there is an "alphabet," it is always sup-
plemented by other types of sign.[10] Only after a long process of collecting
first syllables and then letters could a single εὑρετής collect enough letters,
until, as Plato says of Theuth, "having grasped their [total] number, he
gave the name 'letter' [στοιχεῖον] to each and all of them; then seeing that
none of us would learn any one of them αὐτὸ καθ᾽ αὑτό without the others,
and reasoning that this bond is one and makes all these [letters] somehow
one, he proclaimed a single art of writing [γραμματικὴ τέχνη] over them"
(*Philebus* 18c5-d2). This final step was never taken in Egyptian, or in
Sumerian or Akkadian, but first in Phoenician. Of course, once an alpha-
bet has been invented in one language, it is a smaller step for someone
to reduce a second language to alphabetic writing; but it still requires
processes of collection even to reduce the words of the second language
to the phonemes discovered in the first language, and much more so if the
representation of the second language requires collecting additional pho-
nemes, or distinguishing between phonemes not distinguished in the first
language. But however this happens, what is logically required at each
stage in the development of a writing-system is something much like the
process of collection that Plato ascribes to Theuth.

Plato stresses that Theuth was able to establish his writing-system only
because, when "compelled to grasp the infinite first" and to seek a one
within the infinity of φωνή, he did not "look immediately to the one, but
recognized that each multiplicity is delimited by some number, and from
all these finally reached a one" (*Philebus* 18b1-4): this was the point Plato
had set out to illustrate in the Theuth story. If Theuth had simply declared

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[10] I have oversimplified in one respect: Egyptian phonetic representations rely only
on consonants and sequences of consonants, and do not "collect" and symbolize the
vowels. But any writing-system, including the Phoenician or Greek, "collects" only
some features of φωνή, enough to represent most meaningful utterances without practi-
cal ambiguity, and "lets go into the infinite" (*Philebus* 16e2) the more subtle variations,
especially in vowel quality. On the Egyptian writing-system and other writing-systems
in the ancient Near East, see G.R. Driver, *Semitic Writing: from Pictograph to Alpha-
bet* (revised edition, ed. S.A. Hopkins, 1976, published by Oxford University Press for
the British Academy), especially his discussion of "the Egyptian pseudo-alphabet," pp.
132-6. For a practical account of the Egyptian writing-system see Alan Gardiner, *Egyptian
Grammar* (Clarendon Press, 1927), especially pp. 6-9 and pp. 25-8. Egyptian writing
is made very complex by the combination of different systems of representation; Barry
Powell works through two examples in detail in *Homer and the Origins of the Greek
Alphabet* (Cambridge University Press, 1991), pp. 79-85. I.J. Gelb's *A Study of Writing*
(University of Chicago Press, second edition, 1963) is a stimulating overview but con-
tains some very idiosyncratic judgments (unfortunately taken over by Powell).

"the nature of στοιχεῖον is present in all φωνή" or even "all φωνή consists of vowels, stops, and intermediate consonants," he would have no way to represent the different spoken syllables in writing. Plato stresses that Theuth "recognized that the vowels in this infinite are not one but many . . . then after this he divided [the stops] down to each individual [letter-type], and he divided the vowels and the intermediates in the same way, until, having grasped their [total] number, he gave the name 'letter' to each and all of them" (18b8-c6). If Theuth had collected the letters too hastily – say, if he had failed to distinguish aspirated from unaspirated stops and so counted π and φ or τ and θ or κ and χ as the same letter – and so had fallen short of the full number of phonemes in the language, and if he had then assigned a conventional written mark to each phoneme he had recognized, then his writing-system would be defective, in that it would not be able to represent the spoken syllables unambiguously. This is why, in an illustration of the right method of collection, Plato stresses that Theuth *divided* (διῄρει) the stops: Plato's lesson is not that it is important to collect, but that it is important to collect critically and unhastily, and this can be done only by dividing or distinguishing the different things you are collecting. A more careful comparison of syllables will bring out, not only that some of them share "unvoiced dental stop" in common, but that some of them share "unvoiced unaspirated dental stop" and others share "unvoiced aspirated dental stop." When Theuth has collected all the phonemically distinct primitive sounds of his language, then he can make the final collection of the genus "letter," and assign written marks; the collection is really sufficient if he can then reconstruct the syllables from which he began, by spelling them out unambiguously in terms of the letters they contain.

II

Plato describes Theuth's procedure in collecting the letters because it is supposed to give us a model for how to discover ἀρχαί in general, the letters of "the long and difficult syllables of reality" (*Statesman* 278d4-5): these ἀρχαί are, especially, the Forms, and especially the most basic of the Forms. Plato wants both to recommend collection as a method for coming to knowledge of the Forms, and to warn against the dangers of over-hasty collection in this context.

It is not immediately obvious why collection and division are needed in coming to know the Forms. The *Republic*, which lays great stress on the importance and difficulty of knowing the Forms, and on dialectic as

the means for coming to know them, says nothing about collection and division; and we may wonder why the *Phaedrus* and *Philebus* insist that only these are the proper methods of dialectic, and indeed of all scientific discovery. *Republic* VII suggests that dialecticians come to know the Forms through *definition*: the dialectician is the person who can give and receive a λόγος saying what each thing is (531d9-e5, 534b3-6), or who can διορίσασθαι τῷ λόγῳ each Form (534b8-c1); apparently we will discover the Form or οὐσία of each thing simply by trying different possible definitions for the thing, and seeing whether they survive all honest attempts at refutation by question and answer (534c1-3). But there is obviously something wrong with this proposal. If a λόγος is a verbal formula saying what each thing is, then "since it is composed out of nouns and verbs, it is not stable, not stably enough" (*Seventh Letter* 343b4-6): we cannot overcome the unfixity of all names simply by fixing them to each other. Clearly we cannot define *all* the Forms without circularity; at least the most basic Forms must be immune to definition, and must be known in some other way. Plato seems to be making this point in the *Theaetetus*, in criticizing the thesis of the *Republic* that "he who cannot give and receive a λόγος does not have knowledge about the thing" (*Theaetetus* 202c2-3, cp. *Republic* VII 531d9-e5, 534b3-6): as Plato now says, this would imply that the primitive στοιχεῖα in terms of which λόγοι are given would themselves be unknowable, whereas in fact, as our childhood experience of μανθάνειν τὰ γράμματα shows (203a1-2, 206a1-3), letters are both more knowable and more crucial to know than the syllables are (206b5-11).

The example of μανθάνειν τὰ γράμματα, as the *Theaetetus* explains it, gives an alternative model of how we know simple ἀρχαί. What we did in learning our letters was to try "to discern [διαγιγνώσκειν] each of the letters by itself [αὐτὸ καθ' αὐτό] both in sight and in hearing, so that their [different] positions might not confuse you, when they are spoken or when they are written" (206a5-8): thus the knowledge of simples which (Plato says) is crucial for mastering the whole art, is an ability to *recognize* the simples as they occur in complexes, without mistaking any one of the simples for any other. In this passage, and in the *Statesman* passage on μανθάνειν τὰ γράμματα, what distinguishes knowledge of the simples from true opinion about the simples is that it involves *consistently* recognizing them in complexes. Thus the children in the *Statesman* who can correctly identify the letters in a short and familiar syllable, but misidentify the same letters when they occur in an unfamiliar syllable, are carefully credited only with right opinion (278a9, 278c5, and – when the letters are metaphorical for

principles of reality – 278d4). If at first they misidentify the letter ζ in "κναξζβίχ", they can learn to correct their false opinion about ζ as it occurs in this syllable by comparing it with their true opinion about ζ as it occurs in "Ζεύς", as Meno's slave learns to correct his false mathematical opinions by his true mathematical opinions; but this merely replaces the false opinions by true opinions, and does not yet turn them into knowledge (*Statesman* 278c6, *Meno* 85b8-d1). The true opinions about ζ in different combinations become *knowledge* of ζ only when they are "tied down," so that we *consistently* recognize ζ in whatever combination it occurs in, and never falsely identify it when it is not in fact present. So the *Theaetetus* argues that a child who "in writing 'Theaetetus' [presumably from dictation] thinks he ought to write theta and epsilon, and does in fact write them, but in trying to write 'Theodorus' thinks he should write tau and epsilon and does in fact write those letters" does not know the syllable θε, although he has a true opinion about it on the first occasion (*Theaetetus* 207e7-208a3); nor does the child know θ or τ, since he has a true opinion about θ on one occasion but mistakes θ for τ on another. Both the *Theaetetus* and the *Statesman* intend to draw a lesson about "the long and difficult syllables of reality" (*Statesman* 278d4-5): I do not yet know the (let us say) indefinable Form Animal until I can recognize it wherever I encounter it in things, nor do I know the definable Form Man, even if I have memorized the formula "man is a mortal rational animal", unless I can recognize Man, and his animality and rationality and mortality, wherever he may be encountered.

Given this *Theaetetus-Statesman* understanding of what it is to know the letters and syllables of reality, the method of collection (by which the children in the *Statesman* learn their letters) is a natural way to pursue knowledge, and especially knowledge of simples. The reason why it is difficult to recognize the letters of reality, and in particular the Forms, is that they appear in many guises, and this is because they appear in many combinations. Already in the *Republic*, in trying to explain why most people do not know the one beautiful-itself (and likewise for the other Forms) but only have opinions about the many beautiful things, Plato says that "although each [of the Forms] is one, yet because they appear everywhere in combination with actions and with bodies and with each other, each appears to be many" (*Republic* V 476a5-7). So a plausible way to come to know the one Form X is to collect different combinations in which X occurs, especially combinations XY and XZ with other Forms Y and Z, and try to discern what these different combinations have in common; this should help us to recognize X wherever we see it, and to spell out the

more complex Forms in terms of X and their other constituents, as well
as to spell out the internal structure of X itself if it has one.

When I compare the syllables βα and γα, I am led not only to recognize
the common constituent α, but also to *separate* α from β and from γ. As
the *Theaetetus* puts it, I come to discern each letter αὐτὸ καθ᾽ αὑτό (206a6-
7): this enables me, when I hear "βα" spoken, to separate it into its com-
ponents, so that I can repeat back separately "βῆτα, ἄλφα", instead of
merely repeating back "βα". In the example that Aristotle credits to Young
Socrates, if we had never seen circles separate (χωριζόμενα) from bronze,
it might be difficult for us to make the separation in thought (ἀφαιρεῖν τῇ
διανοίᾳ) and to recognize that bronze does not belong to the essence of
circle; as it is, by comparing circles in bronze with circles in wood or
stone, we can separate the essence of circle from each of these materials
(*Metaphysics* Z 1036a31-b3). It is genuinely Platonic to speak in this way
of a human act of separating things that are presented to us inseparably:
the senses perceive heavy and light or great and small "not κεχωρισμένον
but as something συγκεχυμένον", but thought has the task of seeing them
διωρισμένα or κεχωρισμένα, since if it perceived them ἀχώριστα it would
perceive greatness and smallness not as two things but as one (*Republic*
VII 524a6-c8). Collection can help me separate out the letters, but if this
is to give me knowledge of the original syllables, I must not only separate
the letters but also know how they can recombine; in Socrates' program-
matic words in the *Parmenides*, I must be able "first to divide [διαιρεῖσθαι]
the Forms separately themselves by themselves . . . and then to show that
they can be combined and uncombined [συγκεράννυσθαι, διακρίνεσθαι]
among themselves" (*Parmenides* 129d6-e3).[11] Plato does not suggest in
the *Parmenides* or elsewhere that the separation of the Forms is a mistake:
Parmenides praises Socrates for taking the first step by separating the
Forms (130b1ff), and if Socrates then gets into difficulties it is because he
has tried to separate them too hastily, πρὶν γυμνασθῆναι, and cannot give
an adequate account of how they are related to each other and to partici-
pants and knowers.[12]

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[11] The comparison with the letters is made explicit in the *Sophist*, where γραμματική
knows what letters will combine and what letters will not (252e9-253a12), and dialec-
tic knows the analogous things about the Forms.

[12] Parmenides' terminology for separation varies (he says διαιρεῖσθαι χωρίς at
129d7 and 130b2, ὁρίζεσθαι at 135a2, b7, and c8-9), but the context shows that there
is no difference in sense between these expressions. It is not as if he were (e.g.) in
favor of ὁρίζεσθαι and against διαιρεῖσθαι χωρίς; he is in favor of ὁρίζεσθαι and

Many texts of the later dialogues seem intended, in different ways, to warn against the dangers of over-hasty collection; often, as in the Theuth story, the remedy suggested is to *divide* (διαιρεῖν) the things we are collecting, so as to avoid the analogue of taking τ and θ to be a single phoneme. To know the letter θ, it is not enough to be able to identify θ consistently wherever it is present: we must also consistently *not* identify something as θ when it is really τ, and this is just what it means to *divide* θ from τ. So the *Sophist* says that the task of dialectic is "to divide according to kinds [κατὰ γένη διαιρεῖσθαι] and not to think that the same form is different or that a form which is different is the same," and then to see how they can combine (253d1-3, cf. d9-e2). Διαίρεσις here is simply the nonconfusion of the different Forms which the dialectician has identified and must reidentify, notably Being and Motion and Rest and Sameness and Difference: since both the Giants and the Friends of the Forms have collected Being too hastily, and have confused it either with Motion or with Rest, the dialectician must correct their confusions by "dividing" the letters of reality as Theuth divided the letters (Being and Motion and Rest are compared to letters at 253a1). But this kind of division cannot be reduced to the division of a genus into species, since I can "divide" a Form from another Form whose extension it contains (as Being from Motion), or even from a coextensive Form (as Being from Sameness, since they both apply to everything).

To separate something correctly is thus not just to collect it, but also to divide what we collect, to distinguish each thing from the other things it might be confused with. Plato had first introduced the pair collection and division, in the *Phaedrus*, as a guard against the over-hasty collection of ἔρως and of μανία in Socrates' first speech, which had failed to distinguish the kinds, and had assumed that what was true of the kind of ἔρως the speaker had observed was true of ἔρως as such. Likewise in the *Philebus*, Plato brings up collection and division because Protarchus has been too hasty in collecting pleasure. Protarchus assumes that he has grasped the nature of pleasure in general, and that "although [pleasures] arise from contrary things, they are not themselves contrary to one another" (12d7-8), nor even unlike, "not insofar as they are pleasures" (13c5). For Protarchus, as for the Socrates of the *Protagoras* (351c-e), this is enough to infer that, since pleasure in the abstract is better than its contrary, all pleasure must be good, and that if anything pleasant is bad, this is not insofar as it is

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thus of διαιρεῖσθαι χωρίς, but against doing this incautiously, πρὶν γυμνασθῆναι. ('Ορίζεσθαι here does not mean "to define" in the technical sense, but simply to separate or distinguish something from everything else.)

pleasant, but because of some other attribute it shares in (because it causes
or presupposes a greater pain). Protarchus' problem is thus the opposite
of Meno's. Meno had been unable to answer the question "what is virtue"
except by describing separately the virtues of a man, of a woman, of a
child, of a slave, because he was unable to collect what these virtues have
in common. Socrates, in urging him to collect and to describe the single
nature of virtue, argues that even if bees are of many kinds and differ
from one another, they do not differ insofar as they are bees, but only in
their size or their beauty or something else of this kind (*Meno* 72b1-7),
so that it should be possible to describe the one thing in which bees, or
virtues, do not differ. Now in the *Philebus*, while still insisting on the
necessity of collecting one nature from its many manifestations, Plato is
warning against a temptation to which the theory of Forms is peculiarly
liable, to conceive all X's as being the same inasmuch as they are X, and
to put down all their differences to imperfect participation in the X-itself,
and to participation in other forms.[13] (In the extreme case, this means say-
ing that all stops are the same, inasmuch as they are stops, and that their
differences are due to their being only imperfectly stops, or to their being
combined with continuants or vowels; so that there is no need to distin-
guish more than three letters, "stop" and "continuant" and "vowel", in order
to represent all syllables in writing.) Meno's problem and Protarchus' are
each, at root, failures of intellectual perception, for which there is no guar-
anteed treatment. But no treatment can possibly succeed until we over-
come the eristic arguments that serve to excuse these failures, Meno's
argument that the single common nature cannot be known and Protarchus'
argument that that nature, insofar as it is that one nature, cannot also be
many, and cannot differ from itself or have contrary attributes. Meno can-
not answer his question whether virtue is teachable until he knows what
virtue is, and he cannot know this until he collects the single nature from
its many manifestations. And Protarchus and Socrates cannot resolve their
dispute about whether the best life is one of pleasure or of knowledge
until they can collect pleasure and knowledge critically and without con-
fusion, dividing and separating their kinds: they can then determine the
value of each separated kind of pleasure and of knowledge, and see how
to recombine them into the best human life.[14]

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