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***Metaphysics* H 6 and The Problem of Unity**

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H 6 is undoubtedly one of the most puzzling chapters of the *Metaphysics*. The unity of a thing is discussed. That much is uncontroversial. What is controversial is what the object and purpose of the inquiry of that chapter is. In Z 12 Aristotle argues for the unity of genus and differentia, which are the constituents or components of the definition of form. Is he addressing the same issue, namely the unity of form, in H 6? If so, why? Is he explaining the unity of the composite substance¹ in H 6? Again, if so, why?

Commentators have taken H 6 as concerned with the unity of definition that isn't accounted for in Z and H. In the main, they have disputed which unity of definition, that of form or that of composite substance, Aristotle is concerned with in H 6. They have argued that in H 6 Aristotle either explains the unity of the definition of form in terms of the unity of the definition of composite substance,² or explains the unity of the definition of composite in terms of the unity of the definition of form.³ I think that they are both wrong.

In this paper I will argue that Aristotle's main concern in H 6 is to argue for the causelessness of the unity of definition of both, and not merely for the unity of definition of either, or the explanatory primacy of one to the other. On my interpretation, the causelessness of the unity of definition has to be accounted for, since there is a need for a dissolution of a possible problem arising from applying the metaphysical principle that parts of a thing are a unity by virtue of a unifying cause, to the parts of definition. The problem is that if this principle applies to the definition either of form or of composite substance, then (a) the status of form as primary substance is threatened, (b) composite substance cannot be regarded as a composite of form and matter, and (c) the notion of definition as a formula of essence is threatened.⁴ For this reason, in H 6 Aristotle does not merely argue for the unity of definition but for the causelessness of the unity of the definition, both of form and of composite substance. Regarding which unity Aristotle is inquiring into in H 6, there is no "either/or" of this sort to choose from. The correct interpretation of H 6 is closer to "both/and." I present two arguments for my interpretation.

I shall argue, first, that the proper identification of the aim of the inquiry of H 6 indicates that Aristotle's intention is to defend the theory of substance-as-cause by dealing with a possible problem that arises from a combination of (a) speaking about the parts of the definition of form and the parts of the definition of composite substance, and (b) the principle that parts of a whole need a unifying cause in order to be one and not many. Aristotle has (a') spoken about the parts of the definition of form and the parts of the definition of composite substance.⁵ He has also (b') claimed that the parts of a whole have to have a unifying cause in order to be one and not many.⁶ Do the definition of form and the definition of composite substance, then, have a unifying cause for their unity? A possible problem arises from thinking that they do. If the definition of form needs a unifying cause, form cannot be primary substance, since the unifying cause is then the cause of its being and thus is primary substance. If the definition of composite substance, needs a unifying cause, then composite substances, as composites of form and matter, are mere heaps of matter, since form and matter in the definition turn out to refer to parts that need to be unified by a further cause.⁷

Second, I shall examine exactly how the causelessness in the unity of the definition of form and in the unity of the definition of composite substance is discussed in H 6. A close reading of H 6 shows that Aristotle neither limits the discussion of the unity of definition to form or composite substance, nor prioritizes, in an explanatory fashion, the unity of one to the other. Rather, he argues that both the unity of the definition of form and the unity of the definition of composite substance are to be accounted for without a unifying cause. Contrary to what has been widely maintained, there is no textual evidence to suggest that either the unity of the definition of form or the unity of the definition of composite substances is the exclusive major explanatory concern of H 6. In dealing with the problem of the unity of definition, the difficulty and the solution offered to that difficulty focuses on the cause of unity.

Aristotle's main claim in H 6 is that there is no unifying cause of the parts of definition. The main task of H 6 is not merely arguing for the unity of definition but in indicating the causelessness of that unity.

1. The Theory of Substance-as-Cause and The Unity-Cause Principle

H 6 aims to clarify an apparent problem concerning the parts of the definition of form and the parts of the definition of composite substance. This problem arises in the theory of substance-as-cause, because on that theory neither a cause of the unity of the parts of the definition of form nor a cause for the unity of the parts of the definition of composite substance would be needed, whereas the parts of a whole would need a cause of its unity. This difficulty is presented in H 6 and H 3.

1) At the beginning of H 6, Aristotle announces that he is returning to the difficulty he faced regarding the unity of definition and the unity of numbers.

To return to the difficulty that has been stated with respect both to definitions and to numbers, what is the cause (*aition*) of their unity? (1045a7-8)⁸

The main topic of H 6 is a function of this difficulty. Most likely, the problem Aristotle is referring to is that mentioned in H 3. In Z 12, Aristotle had discussed the problem of the unity of definition. That discussion, however, is not concerned with numbers at all. Moreover, Aristotle does not mention any difficulty in Z 12, even though he suggests that there might be another account, or a more detailed account, of the unity of definition.⁹ In H 3, however, he mentions a problem regarding the cause of the unity of definition and numbers, and at H 3 1044a 2-9, number is compared to substance. One way in which substance and number are alike, he tells us, is that both number and substance seem to be unities composed of many parts, and that such unities need an explanation.

And the number must be something in virtue of which it is one, and this these thinkers cannot state, what makes it one, if it is one (for either it is not one but a sort of heap, or if it is, we ought to say what it is that makes one out of many); and the definition is one, but similarly they cannot say what makes it one. And this is a natural result; for the same reason is applicable, and substance is one in the sense that we have explained, and not, as some say, by being a sort of unit or point: each is a complete reality and a definite nature. (1044a2-9)

The point made in the passage is that the Platonist cannot explain what it is that makes a definition a unity. Substance refers primarily to form. It is an actuality (*entelekheia*) and a nature (*physis*). Thus, there must be something in virtue of which the parts of the definition of substance are one and not many. There is a need for an explanation of the unity of the parts of the definition. The difficulty Aristotle mentions in the beginning of H 6 is thus probably the difficulty mentioned in H 3, and we need to determine precisely what that difficulty is. Earlier in the same chapter Aristotle argues that positing a unifying cause for a definition leads to the absurd consequence that the parts of a definition refer only to matter, and thus a definition is a formula of matter only.

Nor is man animal + biped (*to zoon kai to dipoon*), but there must be something besides these, if these are matter—something which is neither an element (in the whole nor a compound, but is the substance; but this people eliminate, and state only the matter. If then, this is the cause of the thing's being, and if the cause of its being is its substance, they will not be stating the substance itself. (1043b10-14)

Man is not, Aristotle claims, merely composed of two parts, animality and two-footedness, as stated in its definition. If man is animal and two-footedness put together, then in the definition "animal" and "two-footed" refer to parts that needs to be unified by a unifying cause. Aristotle is here arguing that the search for the unifying cause of the parts of definition, such as "biped" and "animal," leads to the absurd consequence that a definition does not state substance in the sense of cause. If there is a unifying cause for the parts of definition, then the parts of the definition are merely parts to be unified, namely material

parts, and thus the definition is not of substance but of matter only. The form of which the definition is, consequently turns out to be merely matter. And the definition does not state substance.

The difficulty Aristotle mentions here is not in the definition itself, but in taking the parts of definition as equal components, components of the same sort, constituting the whole. Taking the parts so leaves them in need of a unifying cause. On this assumption, a definition cannot be the formula of form, but a formula of material matter.

The same difficulty in taking form or its definition as having parts is stated in Z 17. At 1041b11-35, form is said to be substance by being the cause of the being of composite substance. But if form is composed of material parts, then there should be another cause that unifies the material parts of form. This leads to an infinite regress of causes in futile pursuit of a unifying cause. The idea of form's being composed of material parts is condemned because of the absurdity of such an infinite regress.

In H 3, Aristotle commends the idea of not attempting to identify the unifying cause of the definition.¹⁰

Therefore, the point that used to be raised by the school of Antisthenes and other such uneducated people has a certain timeliness. They said that the 'what' cannot be defined (for the definition so called is a 'long rigmarole'), but that it is possible to explain what sort a thing, e.g. silver, is, for instance, that it is like tin. Therefore, one kind of substance can be defined, and formulated, i.e. the composite kind, whether it be perceptible or intelligible; but the primary parts of which it consists cannot be defined, since a definitory formula predicates something of something, and one part of the definition must play the part of matter and the other that of form. (1043b24-33)

People who try to avoid defining form have a certain understanding of the nature of definition, Aristotle claims here, since they at least understand that the definition of form cannot have a unifying cause of its parts. The "point" which Aristotle commends is not the fact that they don't define simple things but the reason why they don't define simple things. The reason is that otherwise, there would be a need for an infinite number of unifying causes. The definition of form is composed of parts, so that on an alternative understanding of definition, the parts of definition need a unifying cause, and the insoluble problem just mentioned would result. The definition, then, would be merely the formula of material parts. The people Aristotle commends explain what kind of thing it is like, instead of explaining the essence or substance. Aristotle calls their way of defining "timely," since it does not allow for a unifying cause and avoids an insoluble problem.

The same line of reasoning applies, and must apply, to the unity of the definition of composite substance. As mentioned in Z 17, there is no unifying cause of form and matter in the definition of composite substance. Composite substance is defined in terms of form and matter, and therefore, since it appears to have parts, seems to be in need of a unifying cause. In H 2 Aristotle claims that the definition of composite substance should include matter and form, or potentiality and actuality.¹¹ If there is a unifying cause of form and matter, the form that is the cause of the being of a composite substance (and that cause is said to be primary substance in Z 17) has to be regarded as merely matter, but it is matter which needs to be unified by a unifying cause. The parts of composite substance would thus turn out to be a collection of material parts that stand in need of a unifying cause. If that were so, form would not play the role of cause, and a composite substance would not be a substance but a mere potentiality to be actualized. Form and composite substance would turn out to be mere potentiality, and their definitions would each be in need of infinite number of "unifying causes." That's absurd.

Thus the difficulty Aristotle is addressing at the beginning of H 6 arises from the problem, the dilemma, that in taking the parts of the definitions as the parts to be unified, form and composite substance both do and do not need a unifying cause. Even though he doesn't mention composite substance as such at the beginning of H 6, the problem he is dealing with is just as much a problem for composite substance as it is for form. If the parts of the definition of composite substance need a unifying cause, then form could not be primary substance and a composite substance would be a mere heap. Both definitions seem to be in need of a unifying cause, but both don't and cannot have a unifying cause.

2) Textual evidence for this interpretation of H 6 can be found at the beginning of that chapter. Aristotle there explains the basis and nature of the dilemma, and especially the reason why there would be a need for a unifying cause for the definition of form and the definition of composite substance. He also explains why, despite appearances, there really is no need for such a unifying cause.

The root of the problem is the principle that all unities that have parts need a unifying cause. At the beginning of H 6 Aristotle presents an argument for the view that every unity made of parts, including form and composite substance, has a unifying cause:

In the case of all things which have several parts (*pleiō merē*) and in which the totality is not, as it were, a mere heap, but the whole is something besides the parts, there is a cause (*aitia*); for even in bodies contact is the cause of unity in some cases, and in others viscosity or some other such quality. (1045a7-12)

Here Aristotle introduces and explains the principle that the parts of a whole must be unified by a unifying cause. The same principle was also stated in Z 17¹² and H 3.¹³ I will call this the Unity-Cause Principle to facilitate future reference. Note that the principle says that a unifying cause is required for all things that are composed of parts and are not mere heaps (*pantōn gar osa pleiō merē ekhei kai mē estin oion sōros to pan all' esti ti to olon para ta moria, esti ti aition*). It thus has universal scope—at least seemingly—for the simple reason that for anything whatsoever, if it lacked a unifying cause, there would be no reason to consider it an 'it,' a single thing, at all. With no unity of parts, a supposed whole composed of parts would fall into many, become a mere heap.¹⁴ A second reason that the principle is—at least seemingly—universal, and that Aristotle's interest is in everything it may apply to, is that metaphysics is, for Aristotle, the study of being as being, and thus applicable to all that is, just because it is. In other words, there is nothing comparable to a Russellian theory of types in Aristotle, to block off the application of metaphysical or logical principles from selected terrain.

What this means is that since both the definition of form and the definition of composite substance have parts, the principle apparently applies to both. The definition of composite substance is composed of parts, with the parts being matter and form. The definition of form also has parts. In Z and H there are several passages in which Aristotle mentions parts of the definition of form. "Let us inquire about the parts of which substance consists," he says at 1034b31, with "substance" here referring to form. At 1035b12-19 he assumes that the definition of the soul, the form of man, has parts:

...but those which are of the nature of parts of the formula, and of the substance according to its formula, are prior (to the whole), either all or some of them. And since the soul of animals (for this is the substance of a living being) is their substance according to the formula, i.e. the form and the essence of a body of a certain kind...so that the parts of soul are prior, either all or some of them, to the concrete 'animal'...

Even more explicitly, at 1035b31-33 he states that form as well as composite substance have parts. While this does not show that the parts of form are anything other than the parts of its definition, the fact is that a definition has parts, and thus a cause for their unity is needed

'A part' (*meros*) may be a part either of the form (i.e. of the essence), or of the compound of the form and the matter, or of the matter itself. But only the parts of the form are parts of the formula....

Finally, in Z 11 he discusses the question of "what sort of parts (of the definition) belong to the form and what sort not to the form, but to the concrete thing." Here Aristotle calls the elements of definition "parts."

The Unity-Cause principle, then, certainly seems to apply to the parts of the definition of form and to the parts of the definition of composite substance. However, as Aristotle recognizes, that creates a problem. Aristotle doesn't explicitly say what that problem is, but his diagnosis of the source of the problem and his solution to the problem indicate what the problem is. It is to them, then, that attention needs to be directed.

The source of the problem, according to Aristotle, lies in the way people are accustomed to define.

Clearly, then, if people proceed thus in their usual manner of definition and speech (*horizestai kai legein*), they cannot explain and solve the difficulty. But if, as we say, one element is matter and another is form, and one is potentially and the other actually, the question will no longer be thought a difficulty. (1045a21-25)

Condemned here is not definition itself but the way people take or understand it.¹⁵ Aristotle proposes a new way of taking or understanding the parts of definition, one part as matter, another as form. This prompts two questions: What exactly is the problematic way that people usually understand definition? And, What is the difficulty that is caused by this problematic way of taking definition?

It will be helpful to look at Aristotle's solution to the problem before addressing these questions, since the solution will itself aid in identifying the problem. With the problem identified, the problematic way people usually understand definition will also be clearer.

The solution to the problem is to take one part as form and another as matter. Taking them this way is taking the parts as "one and the same thing" (1045b18). This means that the problematic way of taking definition is understanding the parts of definition as two different things. The problem that arises if definition is so understood is that there would then be a need for a unifying cause of those parts. This, Aristotle says, is the wrong way to conceptualize the issue. If one part of a definition is taken as form and the other as matter, the parts are not parts that need to be unified by something else. The parts are nominally two, but they are really one; and thus the Unity-Cause Principle, though valid, has no application. In other words, with definition so understood, as Aristotle says, "the difficulty disappears." (1045a 29) This means that even if the definition of form and the definition of composite substance have parts, there is no need for either to have a unifying cause. They are already unities, and need no unifying cause.

This solution indicates that the main concern of H 6 is to address the dilemma that arises from the Unity-Cause Principle—which seems to imply that the definition of form and the definition of composite substance must have unifying causes—and the theory of substance as cause—which implies that form and composite substance, which is composed of form and matter, cannot have unifying causes. The solution to this dilemma, Aristotle says, is that the Unity-Cause Principle does not apply to the parts of the definition of form and to the parts of the definition of composite substance. Properly understood, there is nothing to apply it to.

This does not mean that the Unity-Cause Principle is false. As Aristotle says, "even in bodies contact is the cause of unity in some cases, and in others viscosity or some other such quality." (1045a10-11) But man is more than a collection of its bodily parts, and therefore, there must be some cause that makes these parts a unity. However, the Unity-Cause principle does not apply to the parts that are taken as form and matter. Parts such as form and matter fit together without a unifying cause. The definition of composite substance as form and matter does not fall under the principle or need to be unified. Nor does the definition of form fall under the principle or need to be unified. Form is a unity or a whole, but it is not a whole made out of many material parts, and composite substance is a whole but not made of many material parts. The components of definition explain a thing, and in a sense they can be called parts.¹⁶ However, "parts" is said in many ways. The Unity-Cause Principle cannot apply to the parts in definition, since these are not material parts that make up something else. In brief, not being material parts, they stand in no need of unification. The parts in the definition fit together by themselves. They are not two different things, Aristotle says, but one and the same thing.

If this interpretation is correct, then metaphysically speaking, Aristotle's main concern in H 6 is the causeless unity of the definition of form and the definition of composite substance. The notion of a causeless unity is needed to prevent a misunderstanding from arising about the parts of definition and to prevent a misapplication of the Unity-Cause principle. It is in preventing those two mistakes that Aristotle also defends part of his theory of substance—namely his view of Substance-as-Cause—against an ill-considered but seemingly powerful destructive dilemma that threatens it.

On this interpretation, Aristotle is dealing with, and defusing, an objection that arises when two principles of his metaphysics are conjoined. The two principles are the Unity-Cause Principle and the Substance-as-Cause principle. The nature of the problem arising from the conjunction of these principles threatens Aristotle's metaphysics at its core. The application of the Cause-Unity Principle to the definitions of form and composite destroys both by taking them to be material parts that need to be unified by a cause, and without which they are mere heaps. Aristotle's solution is to clarify his principles so as to show that the problem—it is a single problem, even if it applies to both the definition of form and the definition of composite substance—does not arise. Even if Aristotle has previously offered an explanation of the unity of the definition of form, that is not to the point as far as the problem at hand is concerned.

2. A Textual Analysis of H 6

In this section, I shall argue further that a close reading of H 6 reveals that Aristotle is concerned with the causelessness of the unity of the definition of form and of the unity of the definition of composite substance.

1) The Causeless Unity of the Definition of Form

Aristotle asks for the cause of the unity of the definition of form at the beginning of H 6, when he asks the question, "What makes man a unity?"

What, then, is it that makes man one; why is he one and not many, e.g. animal + biped, especially if there are, as some say, an animal-itself and a biped-itself? Why are not those Forms themselves the man, so that men would exist by participation not in man, nor in one Form, but in two, animal and biped, and in general man would be not one but more than one thing, animal and biped?
(1045a14-19)

We need to explain, Aristotle says, why "biped animal," which refers to man, is one, not many. Plato's theory of Forms offers no help here, and in fact leads to an absurd multiplicity of man: man would be two and not one if, as Plato thinks, "animal" and "biped" refers to two things.

Concerning this passage, Halper claims that "man" in 1045a14 refer to the universal man, not to form, and that Aristotle is discussing the unity of the definition of composite substance. I find no evidence for this claim. On the contrary, there are three reasons for believing that "man" refers to form. The first is that Aristotle refers to form by the definition "biped animal" in Z 12, and here in H 6 uses exactly the same definition. Unless there's a reason to think otherwise, "biped animal" should be taken to refer to the same thing.

The second reason is that Aristotle distinguishes the form "man" (*anthropos*) from composite substances "men" (*anthropoi*). He mentions the problem of the unity of the Platonic Form "Man" in conjunction with the problem of the unity of "man," and claims that a problem with the unity of Form "Man" would also mean a problem with the unity of composite substances, "men." Here the plural "men" refers to composite substances, substances which are caused to exist by the Form 'Man.' Since, as argued in Z 17, (a) Aristotelian form is also the cause of the being of composite substance, it follows that the implications of the problem of the unity of the definition of form for the unity of composite substance are the same in case of Aristotelian form and Platonic form.¹⁷ But the force of this argument must not be misunderstood. (a) means neither that the composite need not be of interest in H 6 except as illustrating, analogically, how to explain the unity of the definition of form, nor that the explanation of the unity of the definition of form solves the problem of the unity of the definition of the composite. Even if form is the cause of the being of a composite substance, the unity of the definition of form cannot be explained by explaining the unity of the definition of the composite, that is, how form and matter are united. The problem is that the definition of form has parts, and insofar as the Unity-Cause Principle is applied to those parts, the unity of the definition of form needs to be explained. Also, even though form is the cause of the being of composite substance, the unity of the definition of form does not automatically explain the unity of the definition of composite substance. Composite substance is defined in terms of form and

matter. The unity of the definition of form itself cannot explain how in that definition, form and matter is a whole.

A third piece of evidence is Aristotle's remark: "for this difficulty is the same as would arise if 'round bronze' were the definition of 'cloak'...so the question is, what is the cause of the unity of 'round' and 'bronze'?" (1045a25-29) The difficulty of explaining the unity of 'round bronze' is the same as that of explaining the unity of 'biped animal.' Moreover, Aristotle offers the same solution to both problems. The definition 'round bronze' refers to the composite of form and matter.¹⁸ The problem is that if 'biped animal' is the definition of the composite, Aristotle's remark at 1045a25-29, which was cited earlier, cannot be made intelligible. For there is no point in repeating the same difficulty and then repeating the same solution in respect to the same kind of definition, the definition of composite substance. This is especially true of Aristotle, whose writing is notoriously condensed (not to say, dense).

To the question "what makes man one?" Aristotle answers that taking the components of the definition to be matter and form, or potentiality and actuality, makes the problem disappear. He claims that in case of form that doesn't have matter, there is no cause of unity other than form itself, and thus there is no cause of the unity of its definition.

But if as we say, one element is matter and another is form, and one is potentially and the other actually, the question will no longer be thought a difficulty... What, then, causes this—that which was potentially to be actually—except, in the case of things that are generated, the agent? For there is no other cause of the potentially sphere's becoming actually a sphere, but this was the essence of either. Of matter some is intelligible, some perceptible, and in a formula there is always an element of matter as well as one of actuality; e.g. the circle is 'a plane figure'. But of the things which have no matter, either intelligible or perceptible, each is by its nature essentially a kind of unity, as it is essentially a kind of being—individual substance, quality..., and the essence of each of them is by its nature a kind of unity as it is a kind of being—and so none of these has any reason (*aition*) outside itself for being one, nor for being a kind of being. (1045a26-1045b5)

Here Aristotle reformulates the question of the cause of the unity of definition into a question of the cause of potentiality being or becoming actuality. The answer is essence in general, which is the efficient cause or agent in the case of generation and corruption, and in case of being, is the final cause.¹⁹ However, in the case of things which have no matter, there is no cause (*aition*) of what is taken as potentiality to be actuality. There is just a unity, and thus there is no cause of unity except itself. This means that there is no cause at all for the unity and being of form except itself, and likewise no cause for the unity of the definition of form. Form can be formulated in a definition whose parts are taken to be matter and form, but there is no matter in form. The part taken as matter does not refer to matter, but to an aspect or element of form which, with other aspects referred to or assumed in definition, constitutes the unity and wholeness of form. Form is metaphysically simple but constitutes a whole, since in one sense of the term, we can speak of its parts.

A similar argument can be found in Polansky's commentary on *Metaphysics*. He argues that form itself is a whole, since it is the cause of composite substance's being a whole.²⁰ The argument Polansky has for this claim is that form, as the cause of a composite substance's being a whole, must be similarly whole. Form has parts, but is a whole without having or needing any unifying cause. Since it is itself a unity, there is no cause of matter being or becoming actuality. There are various functions of form and thus various parts of form, for example, the various functions of the soul of human beings, but the soul is one and a whole by itself.

At least two arguments could be advanced against my interpretation. A) The first is that the unity of the parts of the definition form, genus and differentia, is already argued for in Z 12, and thus there is no need to explain the unity of the parts of the definition of form.²¹ B) The second is that the discussion of the unity of the parts of the definition of form in H 6 functions only to explain the unity of the parts of the definition of composite substance.²² I'll consider these arguments in turn.

A) Halper claims that in Z12 Aristotle "shows that the form is one because its formula

can consist of only a single constituent, the ultimate differentia."²³ The need for H 6, Halper thinks, arises from the identification of form as the cause of the unity of the material elements of a composite substance in Z 17. Such an identification "still leaves open the difficulty of accounting for the unity of the form and the material elements."²⁴ According to Halper, then, in H 6 Aristotle addresses only the difficulty of explaining the unity of the form and the material parts of composite substance. That problem was not adequately addressed in Z 17. In order to support his interpretation, Halper argues that Aristotle's mention of "contact, stickiness, or some other such quality" at H 6 1045a10-12 entails that he has the unity of the parts of a composite in mind, since these are the causes of bodily continuity.²⁵ He also argues that Aristotle's discussion of the unity of sphere and bronze at 1045a25-30 indicates that the unity of the definition of composite substance is at issue in H 6. Even though he notices the similarity of the formulation of the questions at Z 12 and H 6, he claims that "despite similarities with the formulation of the problem of Z 12," the issue of H 6 is the unity of the parts of the definition of composite substance.

There are two reasons for thinking that Halper is wrong about this. (i) Halper is right that in Z 12 an explanation of the unity of the definition of form is offered. However, that doesn't mean that in H 6 the unity of the definition of form is not discussed. If my argument on the issue of H 6 is correct, the major issue in that chapter is a problem that arises from applying the Unity-Cause Principle to the parts of definition. But the Unity-Cause Principle raises the difficulty of accounting for the unity of the definition of form just as much as it does for the unity of the definition of composite substance. Looking at the parts of definition from the perspective of the Unity-Cause Principle and explaining the problem arising from it is definitely a new issue. There is therefore ample reason why Aristotle would discuss the unity of the definition of form in H 6 again.

ii) The second reason is that if, as Halper argues, Aristotle understands the difficulty of accounting for the unity of the definition of form and the material elements in Z 17, he must have done so in virtue of recognition of the broader problem that the unity of parts into a whole has to be accounted for. In Z 17 he argues that there is a cause of the unity of the material parts of a composite substance. Moreover, if, as Halper himself claims, Aristotle is aware of the difficulty of explaining the unity of the cause and the material elements, then he has already taken the cause and the material elements as parts of a thing, and the parts as being unified by a unifying cause. If not, there would be no reason to think that there is a difficulty in explaining the unity of the cause and the material elements. Such a problem does not arise automatically. There is such a problem only if the material parts and the cause that is form are regarded as parts of a composite substance whose unity is to be accounted for. So, if there is a problem of the unity of the cause and the material parts of composite substance, the problem arises from the felt need that the parts be unified into a whole. If, then, Halper is right in thinking that H 6 is concerned with a problem left over from Z 17, that problem is most likely discussed in relation both to the parts of the definition of form and to the parts of the definition of composite substance. Thus even though there is a problem left hanging in Z 17, that does not entail that the object of the inquiry of H 6 is the unity of the definition of composite substance alone, and not also the unity of the definition of form. The Unity-Cause Principle, in conjunction with the view that substance is cause, raises the difficulty of accounting for the unity of the definition of form just as much as it does for the unity of the definition of composite substance. The whole corpus of his work shows that Aristotle is a penetrating and systematic philosopher, and one who recognizes the implications of the principles of his philosophy, and thus possible misunderstandings of those principles. That is why if the difficulty of accounting for the unity of the definition of the composite is recognized and addressed H 6, the difficulty of accounting for the unity of the parts of the definition of form would also be recognized and addressed there.

B) Gill argues that the topic of the unity of the definition of form, that is, the unity of genus and differentia, is introduced in H 6 in order to explain the unity of the definition of composite substance. She thinks that composite substance is claimed to be primary substance in H 6 as a result of Aristotle arguing for the unity of the definition of composite substance. "The unity of genus and differentia which is explained in Z 12 is unproblematic,"²⁶ she says, and Aristotle mentions the unity of genus and differentia to "recall how the genus and differentia are unified."²⁷ According to her, recalling how they are unified is needed in order to solve the problem of the unity of form and matter. This is mistaken. As pointed out

above, in Z 12 Aristotle compares genus to matter in order to explain the unity of genus and differentia. Thus, the unity of genus and differentia does not explain the unity of form and matter. When the unity of the definition of the components of composite substance is examined, and a solution is offered in terms of form and matter, it would then be circular, and thus non-explanatory, to take the unity of genus and differentia as a model for explaining the unity of the definition of form and matter. Moreover, in H 6 there is no evidence to suggest that Aristotle uses the unity of the definition of form to explain the unity of the definition of composite substance. Both philosophically and textually, the best conclusion to draw is that the unity of the definition of form is a genuine problem in H 6. As before, however, that does not mean that the primary issue of H 6 is the unity of the definition of form over and above that of the unity of the definition of the composite. The genuine problem of accounting for the unity of the definition of composite substance and the unity of the definition of form must be seen in terms of accounting for how the parts of definition constitute a whole, without a unifying cause.

2) Composite Substance and Its Causeless Unity

Innocent of philosophy, we naturally identify things as units distinct from their surroundings, composed of material parts, and, because they are units, identical---still the same thing--- through change. Marking them off as units and identifying them through change, we think of them as having something, some principle, that makes the identification of a unity with parts possible, and makes continued identity through change possible. We think of things, in other words, as having a principle of unity, but one that allows for at least some changes without the destruction of that unity. If a common, everyday thing---a horse, for example---had no principle of unity, its parts would fall apart and it would become (actually, would be from the start) many, and not one. Aristotle's philosophy may be technical and complicated, but his view of reality isn't substantially different as far as everyday things like horses are concerned. Horses are composite substances, and as such are unities, and thus more than the sum of their material parts. But if they are unities, and more than the sum of their parts, something has to account for the fact that they are unities, that is, account for the fact that a horse isn't just a hoof + a foot + an ankle + a shin + all thrown together. Composite substances, then, material objects composed of parts, and especially living beings, are the most obvious things in need of a cause or principle of unity, and thus are the most obvious candidates for application of the Unity-Cause Principle. These briefs comments set the stage for an alternative interpretation of H 6.

Commentators such as Ross and Rorty apparently think that Aristotle's discussion of the unity of the definition of composite substance is subordinate to his discussion of the unity of the definition of form, and was written in order to account for the unity of the definition of form. Harte argues that Aristotle discusses the unity of composite substance in order to show that the unity of form is the cause of the unity of composite substance. She claims that in H 6 "a composite's unity is secured only by the unity of form."²⁸ On this interpretation, the unity of the parts of the definition of composite substance is a secondary topic.

However, nowhere in H 6 does Aristotle claim that the unity of the definition of the composite is discussed merely in order to explain the unity of the definition of form. Nor does he anywhere in H 6 mention the causal relation between the unity of the definition of form and the unity of the definition of composite substance. On the contrary, he states that the problems for form and composite substance are the same---that is, that the kind of problem the unity of the parts of the definition of form faces and the kind of problem the unity of the parts of the definition of composite substance faces are essentially the same---and thus that both should yield to essentially the same solution. That same solution is that there neither is, nor is there any need for, a unifying cause of the parts of definition.

Contrary to the view of Ross, Rorty, and Harte, Aristotle is not arguing that the unity of the definition of composite substance provides an analogy that helps to explain the unity of form. At H 6 1045a25-30, right after he explains the difficulty of the unity of the form, Aristotle states:

For this difficulty is the same as would arise if 'round bronze' were the definition of 'cloak'; for this word would be a sign of the definitory formula, so that the question is 'what is the cause of the unity of 'round' and 'bronze'?

A bronze sphere, a typical composite substance,²⁹ is defined as 'round bronze,' and, according to Aristotle, the definition of the composite faces the same difficulty as the definition of form. For the same question of the cause of its unity arises, and arises for the same reason: the universal scope of the Unity-Cause Principle. Neither here nor anywhere else is there a hint of the priority of one problem to the other. And rightly so. For the basis of the problem is a metaphysical principle which is indifferent to such questions of priority.

At 1045a 21-22, Aristotle states that if people proceed in the customary way of defining and saying (*horizesthai kai legein*), they cannot explain and solve the difficulty. What is the "saying" which is on an equal footing with "defining"? The answer is found in Z 4. At 1030b6-13, only the formula of the essence of substance is called definition in the primary sense. The formula of the essence of nonsubstantial beings and composites, such as white man, is not definition or is definition in a secondary sense. Thus, the activity of defining and saying refers to the general activities of defining in the primary and secondary senses: formulating the essence of something primary, and formulating the essence of everything else. The result of the former activity is called definition (*horismos*) in the exact sense, while the result of the latter activity is called formula (*logos*) in general or definition in a secondary sense. Thus when Aristotle states that the usual way of "*horizesthai*" and "*legein*" is problematic, one very plausible way to interpret him is as referring to taking or understanding the parts of the definition of form and the definition of composite substance in such a way that there are parts to be unified by a cause.

At 1045b7-16 Aristotle lists various attempts other philosophers have made to avoid this problem. Instead of talking about the cause of the unity of parts, some speak about participation and others speak about communion and composition. Aristotle does not think that these attempts are successful, since the key terms here 'participation,' 'connection,' and 'composition,' are not clear, and more importantly, these explanations raise the question of the cause of participation, communion, or connection.

Owing to the difficulty about unity some speak of 'participation,' and raise the question, what is the cause of participation and what is it to participate; and others speak of 'communion,' as Lycophron says knowledge is a communion of knowing with the soul; and others say life is a 'composition' or 'connexion' of soul with body. Yet the same account applies to all cases; for being healthy, too, will on this showing be either a 'communion' or a 'connexion' or a 'composition' of soul and health, and the fact that the bronze is a triangle will be a 'composition' of bronze and triangle, and the fact that a thing is white will be a 'composition' of surface and whiteness.

The philosophers in question see the need to account for the unity of the parts of the composite, whether a substantial unity or an accidental unity, and the danger they court is exactly the same as that which threatens the form: the need for a further cause, which would in turn require a still further cause, thereby leading to an infinite regress. The upshot is that even in case of accidental unities, the parts such as 'knowing' and 'soul' of knowing soul and 'health' and 'soul' of healthy soul, do not have a unifying cause.³⁰

From this passage, we can conclude that Aristotle's concern extends to everything whose definition has parts. His claim is that positing a unifying cause for the parts of the definition or formula is a useless labor. Taking one part as form and the other as matter, the unity of the definition of a thing is ensured and the problem evaporates.

The problem of the unity of the definition of composite substance is independent of considerations having to do with the unity of the definition of form; the problem is based on the simple fact that a composite substance is composed of parts. Whether form is or isn't a unity is of no moment as far as that problem is concerned. The problem of explaining the unity of composite substance is the problem of explaining the unity of the parts of its definition. Even if it's granted that form is a unity and form is the cause of the unity of the material parts of composite substance, it's still true that form is a part

of composite substance in the sense that it's an element of the definition of composite substance, and thus its unity plays no role in explaining the unity of form and matter in the definition.

Another piece of evidence suggesting that the problem of explaining the unity of the parts of the definition of composite substance is one of Aristotle's main concerns in H 6 is that he gives essentially the same solution to both the problem of the unity of the definition of form and the problem of the unity of the definition of composite substance. This implies that the discussion of the unity of definition itself arises from the deeper problem of explaining the unity of parts of formula, either of form or of the composite, including accidental composites. The same solution offered implies that Aristotle's main interest is not explaining the unity of the definition of either form or composite substance simply as such. Moreover, his solution is offered almost immediately following his discussion of unsuccessful attempts to solve the problem of the unity of the definition of composite substance.

But if, as we say, one element is matter and another is form, and one is potentially and the other actually, the question will no longer be thought a difficulty. For this difficulty is the same as would arise if 'round bronze' were the definition of 'cloak': for this word would be a sign of the definitory formula, so that the question is, what is the cause of the unity of 'round' and bronze'? The difficulty disappears, because the one is matter, the other form. What, then, causes this—that which was potentially to be actually—except, in case of things that are generated, the agent? For there is no other cause of the potential sphere's becoming actually a sphere, but this is the essence of either. (1045a20-33)

The definition of composite substance, Aristotle says, faces the same difficulty as the definition of form: the Unity-Cause Principle applies to the parts of the definition of composite substance, but a composite substance cannot have a unifying cause. If it has a unifying cause, a composite substance, a form plus matter, would be merely a collection of material elements. But this is not the case. However, Aristotle contends, taking one part as form and the other as matter actually *solves* the problem for composite substance;³¹ “the difficulty disappears.” “Parts,” as mentioned above, is said in many ways, and so if one part of the definition is taken as form and the other as matter, no cause for their unity is required. Even though Aristotle mentions a ‘cause’ in the quoted passage, such a cause should not be understood as a unifying cause of parts, but a cause of generation and being. In effect, Aristotle is replacing the original question, “What is the cause of the unity of ‘round’ and ‘bronze’?” (*ti aition tou hen einai to stirongylon kai ton chalkon*) with a new question, “What causes that which was potentially to be actually” (*to oun touton aition, tou to dunamei on energeia*).³² In the case of a composite that is generated, there is a cause of its generation, a cause that moves what is potential to be actual. Such a cause is an efficient cause. It is the only cause that can intelligibly be asked for, for it is the cause that explains the change. That there is no unifying cause for the unity of parts when parts are understood in terms of form and matter, is not in conflict with the view that there's a cause for a being's generation and existence.

Aristotle repeats the same solution at 1045b7-16. After discussing the previously mentioned attempts to explain the unity of various composite things, he offers the same solution to the difficulty in explaining the unity of the parts of the definition of the composite and of the parts of the definition of form.

The reason is that people look for a unifying formula, and a difference between potency and complete reality. But, as has been said, the proximate matter and the form are one and the same thing; the one potentially, and the other actually. Therefore it is like asking what in general is the cause of unity and of a thing's being one; for each thing is a unity, and the potential and the actual are somehow one. Therefore there is no other cause here unless there is something that caused the movement from potency into actuality. And all things which have no matter are without qualification essentially unities. (1045b16-23)

The original question, which asked for the cause of the unity of a composite substance, is based on the erroneous assumptions that (a) form and matter are two different things and that (b) form and matter need to be unified by something else.³³ The source of the problem is assumption (a), that form and matter are

two different things, “parts” in one sense of the term. Aristotle’s solution is that, in a sense, they aren’t, that “the proximate matter and the form are one and the same thing.” The only meaningful question to be asked about the cause is, “How does the potential become actual?” At 1045b15-28, he claims that in the case of composite substance, there is a cause that “causes the movement from potency to actuality.” In that respect, a composite substance is different from a form, for a form has no cause whatsoever, since it doesn’t contain any matter. The question, “How does the potential become actual?” doesn’t apply to form. In effect, Aristotle is borrowing a page from—actually, supplying a page for—contemporary analytic philosophy by telling his fellow philosophers that their questions are ill-formed, based on erroneous metaphysical assumptions, and thus needn’t be answered, but should instead be rejected.

Aristotle offers the correct solution for the problem of the unity of the definition of composite substance, a solution that utilizes the concepts of form and matter, and not form alone. The solution isn’t based on the unity of the definition of form at all, not even in terms of an explanatory analogy, in which being analogous to what is clear, what is unclear is explained in terms of what is clear. The problem of the unity of the definition of composite substance thus isn’t secondary to the problem of the unity of the definition of form, but is discussed on an equal footing with it.

CONCLUSION

I have argued that H 6 should be taken as Aristotle’s clarification on the causelessness in the unity of the parts of definition. On my interpretation, in H 6 Aristotle is concerned with a general metaphysical problem affecting—threatening—his theory of substance at two major points. The unity of genus and differentia in the definition of form has to be accounted for without appealing to a unifying cause. If it were not accounted for, form would not be the primary cause of being and thus not primary substance. The unity of the parts of the definition of composite substance also has to be accounted for without appealing to a unifying cause. If it were not accounted for, the definition of composite substance would be merely a formula referring to material parts, and wouldn’t be the formula of an essence. And the composite substance would not be a substance.

This interpretation also offers a solution to the ongoing dispute about which definitional unity, that of form or that of composite substance, is the primary object of inquiry of H 6. In brief, my answer is neither. H 6 shouldn’t be taken in an exclusionary way, as either an inquiry into the unity of the definition of form or as an inquiry into the unity of the definition of composite substance. The treatment of neither problem is logically or metaphysically prior to the other. The unity of the parts of the definition of form is not explained, even if the unity of the parts—form and matter—of composite substance is accounted for. An account for how the parts of the definition of composite substance is unified is different from an account of how the parts of the definition of form is unified. And the unity of the parts of the definition of composite substance cannot be explained, even if the unity of parts of the definition of form (which is itself a component of composite substance) is accounted for. The unity of both the definition of form and the definition of composite substance has to be explained without appealing to a unifying cause, and neither is prior to another. The problem addressed is different from and more basic than commentators have hitherto allowed.³⁴

Notes

¹ By the “composite substance” I mean a universal compound, such as man, which is form and matter taken universally. This universal compound is the object of definition, and individual composite substances are recognized in virtue of the definition of this universal compound. The unity of the definition of this universal compound is crucial to the unity of particular composite substances, since Aristotle thinks that “the individual is analogous to the universal on its composition.” (1037a5-10)

² See Ross 1924, 238; Rorty 1973, 393-420; Harte 1996, 276-304. Ross and Rorty think that Aristotle explains the unity of the genus and differentia of form by accounting for the unity of form and matter in composite substance.

Harte argues that Aristotle explains the unity of composite substance in order to explain the unity of form. The unity of the composite substance, she thinks, illustrates the causal role of form, and thus its unity.

³ See Halper 1984, 146-159; Gill 1989. Halper argues that Aristotle's objective in H 6 is to resolve the problem of the unity of composite substance, a problem that arises from identifying form as the cause of the unity of material parts in Z 17. He claims that Aristotle's inquiry into the cause of the unity of material parts in composite substance creates a problem for accounting for the unity of (a) the cause and (b) the material parts in composite substance. "If there is a cause of the unity of the elements," Halper 1984, 151 argues, "we also need a second cause to account for the unity of this cause with the elements, and still another cause to account for the unity of the second cause with everything else, and so on *ad infinitum*." Gill thinks that in H 6 Aristotle argues that composite substance is truly a unity, and thus primary substance.

⁴ Aristotle states that "since a definition is a formula, and every formula has parts, and as the formula is to the thing, so is the part of the formula to the part of the thing" (1034b20-22). Thus it is crucial to explain the unity of the definition of a thing for a thing that is simple. Since substantial form and composite substance are each a unity, Aristotle has to explain how the definition of each is a unity.

⁵ *Metaphysics* Δ 25; Z 11 1023b19-23; Z12 1034b31; 1035b12-19; 1035b33-35.

⁶ Z 17 and H 6.

⁷ My interpretation can be called "a deflationary account" of H 6, as Loux 1995, 247-279, has called his interpretation. I agree with Loux that H 6 does not provide "new, magical solution to the problem of the unity and reality of composites." However, in the sense that H 6 puts an end to all disputes on the unity of definition, while defending the theory of substance as cause, H 6 plays the role of the last chapter of the theory of substance.

⁸ The translation here and elsewhere is Ross's, unless otherwise indicated.

⁹ In H 6 Aristotle offers the same solution to the problem of the unity of definition of form that he prescribed in Z 12. This is another reason why the difficulty of H 6 is not related to H 12. See *Notes on Eta and Theta* p.38 for the possible link between Z 12 and H 6.

¹⁰ See Bostock 1994, 270. He thinks that in this passage Aristotle abandons defining simple things, including forms.

¹¹ At 104314-18 Aristotle writes: "And so, of the people who go in for defining, those who define a house as stones, bricks, and timbers are speaking of the potential house, for these are the matter; but those who propose 'a receptacle to shelter chattels and living being', or something of the sort, speak of the actuality. Those who combine both of these speak of the third kind of substance, which is composed of matter and form."

¹² "Since that which is compounded out of something so that the whole is one, not like a heap but like a syllable, ... the syllable, then, is something—not only its element (the vowel and the consonant) but also something else... it is the cause which makes this thing flesh and that a syllable... And this is the substance of each thing (for this is the primary cause of its being)..." (1041b11-27)

¹³ At 1044a2-5 Aristotle states that if a thing is a whole of parts, not a heap, then there must be a cause: "And the number must be something in virtue of which it is one, and this these thinkers cannot state, what makes it one, if it is one (for either it is not one but a sort of heap, or if it is, we ought to say what it is that makes one out of many)."

¹⁴ The Unity-Cause Principle is both explicit and implicit in Z and H. At Z 16, 1040b5-10, Aristotle suggests that a material thing is more than a mere heap of material parts. If material parts and matter, such as earth, fire, and air, are a unified whole, there must be something other than these material elements to account for their unity. He states that "Evidently even of the things that are thought to be substances, most are only potencies—both the parts of animals (for none of them exists separately; and when they are separated, then too they exist, all of them, merely as matter) and earth and fire and air; for none of them is a unity, but as it were a mere heap, till they are worked up and some unity is made out of them." (1040b5-10) The same view can be found at H 3 1044a4-5, where Aristotle states that if a thing is a one and not a heap, "we ought to say what it is that makes one out of many." Similarly, at H 6 1045a10-12 he claims that there is even a cause of the unity of mere bodies, which are the weakest examples of unity: "for even in bodies contact is the cause of unity in some cases, and in others viscosity or some other such quality."

¹⁵ See Bostock 1994, 280-281. Bostock calls this way of interpreting the phrase "the orthodox interpretation," and claims that it is mistaken. He argues that Aristotle rejects this type of definition, since, according to him, it ignores the cause of the being of the composite universal, man. However, there is no evidence to suggest that Aristotle explicitly condemns the usual way of defining or offers a new kind of definition instead. The so-called orthodox interpretation seems to me correct.

¹⁶ In Book Δ 25 1023b 22-24, Aristotle claims that "the elements in the definition which explains a thing are also parts of the whole."

¹⁷ The same interpretation is found in the commentary on H 6 in *Notes on Eta and Theta*.