ON GENERATION AND CORRUPTION

In this work on the topic of coming into (and going out of) existence, Aristotle opposes the atomists' contention that these phenomena involve the association (and dissociation) of atoms. There are no atoms (i.e., indivisible bodies) in Aristotle's view. Rather, every body has the potential to be divided at any point, although no body can be actually divided into an infinite number of parts.

In the excerpts presented here, Aristotle distinguishes coming to be from alteration (Book I) and discusses the reciprocal transformation of the four elements (Book II).

BOOK I

1

We must distinguish the causes and accounts of coming to be and perishing that are common to everything that comes to be and perishes naturally. We must also ask what growth and alteration are and whether alteration and coming to be should be taken to have the same nature, or separate natures that correspond to their distinct names.

Some of the early philosophers say that what is called unqualified coming to be is really nothing but alteration, while others say that alteration is different from coming to be. For those who say that the whole universe is some one thing and make everything come to be from one thing have to say that so-called coming to be is really only altered. But those who say that matter is more than one thing—for instance, Empedocles, Anaxagoras, Leucippus—have to say that coming to be and alteration are different.

And yet among these pluralists Anaxagoras misunderstood his own statements. At any rate, he says that coming to be and perishing are the same as alteration, even though, like others, he says that there are many elements. For Empedocles says that there are four bodily elements, but that the total number of elements, including the two sources of motion, is six, while Anaxagoras, Leucippus and Democritus say that the elements are unlimited in number. For the elements that Anaxagoras recognizes are uniform things—for instance, bone, flesh, marrow, and everything else whose parts are synonymous with the whole. Democritus and Leucippus, by contrast, say that everything else is composed of indivisible bodies that
are infinite both in number and in shapes, and that <differences in> these components and <in> their position and arrangement make the com-

pounds different from each other. For the views of Anaxagoras and his supporters are evidently contrary to those of Empedocles and his support-

ers. For Empedocles says that fire, water, air, and earth, rather than flesh, bone, and similar uniform things, are <the only> four elements and that only these are simple, whereas Anaxagoras and his supporters say that these <uniform things> are simple and elemental, while earth, fire, water, and air are compounds—for these four, they say, are a common seed-bed of the uniform things.

Those, then, who constitute everything out of some one thing must say that <so-called> coming to be and perishing are <nothing but> alteration. For in their view, in every <change> the subject remains one and the same; and that is the sort of thing that we say is altered. On the other hand, those who recognize more than one kind of thing must distinguish alteration from coming to be; for when things <of different kinds> are combined there is coming to be, and when they are dissolved there is perishing. That is why Empedocles also speaks in this way, when he says ‘There is no birth of anything, but only mixture and the dissolution of things that have been mixed’.

It is clear, then, that this account fits their assumption, and that this is what they actually say. But they must also distinguish alteration from coming to be; yet their own statements make this impossible. It is easy to see that we are right about this. For just as we see a substance remaining stable while its size changes (this is called growth and decay), so also we see alteration; and yet the views of those who recognize more than one principle make alteration impossible. For the attributes that we take to be <gained or lost> when something is altered—i.e. hot and cold, pale and dark, dry and wet, soft and hard, etc.—are differentiae of the elements.1 Empedocles also says this: ‘The sun is pale to the eye and hot all over, but rain is dark and cold throughout’ (and he distinguishes the other <elements> in the same way). If, then, water cannot come to be from fire, or earth from water, then neither will anything be dark from being pale, or hard from being soft; and the same argument applies to the other cases. But we agreed that this is what alteration is.

Hence it is also evident that in every case we must assume a single matter for the contraries <involved in change>, whether the change in-
volves place, or growth and decay, or alteration. Moreover, the existence of this matter and of alteration are equally necessary; for if there is any alteration, it follows both that the subject is a single element and also that

1. **differentiae of the elements**: If they are **differentiae**, they must be essential properties of the elements. Since alteration involves only nonessential properties, these differentiae cannot enter into alteration.
all the <contraries> that allow change into each other have a single matter. And equally, if the subject is one, there is such a thing as alteration.

3

Now that we have determined these points, the next question is this: Does anything come to be without qualification or perish, or does nothing come to be in the full sense, so that in each case a thing comes to be $F$ from being $G^2$—comes to be healthy, for instance, from being sick and sick from being healthy, or comes to be small from being large and large from being small, and everything else in the same way? For if there is such a thing as unqualified coming to be, then something would come to be without qualification from what it is not, so that it will be true to say that not being belongs to some things. For a thing comes to be $F$ from what is not $F$ (for instance, not pale or not beautiful), and a thing comes to be without qualification from what is-not without qualification.

Now, 'without qualification' signifies either what is primary in a given predication of being, or what is universal and includes everything. If, then, <not-being without qualification> signifies not being> the primary thing, then substance will come to be from non-substance; but if a thing is not a substance and a this, then clearly it has none of the other predications either—for instance, quality, quantity, or location—for if it had, attributes would be separable from substance. Alternatively, if <not-being without qualification> signifies> not being at all, it will be the universal negation of everything, so that what comes to be <without qualification> will have to come to be from nothing.4

The puzzles about this issue have been thoroughly examined, and the <necessary> distinctions drawn more fully, in other discussions;5 but we should also state the points concisely here. In one way, something comes to be <without qualification> from what is-not without qualification, but in another way it comes to be, in every case, from what is. For something that

2. $F$ from being $G$: lit. 'something from something'.
3. and a this: Here and in 317b20 the 'and' may be equivalent to 'i.e.'.
4. come to be from nothing: Aristotle refers to the puzzle about coming to be that he mentions at Phys. 191a23–33. We may be willing to agree that qualified coming to be (i.e., alteration, etc.) is possible, because it does not involve coming to be from what is-not without qualification, but only the coming to be of what is $F$ (the musical man) from what is not $F$ (the unmusical man). But if some type of coming to be is different from qualified coming to be because it involves the coming to be of a new substance (cf. Phys. 190a31–b1), does it not involve coming to be from nothing (from what is-not without qualification)? This is the puzzle that Aristotle tries to resolve.
5. other discussions: See Phys. 191a33–b27.
is *F* potentially, but is not *F* actually, must precede <any coming to be of *F*>, and this is spoken of in both ways <as being and as not being>.

But even when these distinctions have been drawn, a further question is remarkably puzzling, and we must go back to it again: How can there be unqualified coming to be, either from what potentially is or in any other way? For it is a puzzling question whether there is any coming to be of a substance and a this, rather than <merely> of a quality or quantity or location (and the same applies to perishing). For if something⁶ comes to be, then clearly there will be some potential but not actual substance from which <the substance> will come to be and into which the <substance> will have to change when it perishes. Will this, then, actually have any of the other things (quantity, quality, or location) if it is only potentially a this and a being, and is neither a this nor a being without qualification? For if it has none of these actually, but has all of them potentially, then it turns out that what lacks all these sorts of being is separable, and moreover that something comes to be from nothing preceding it—the very thing that always most alarmed the earliest philosophers. If, on the other hand, it is not a this or a substance but has one of the other <predications> we mentioned, then, as we said, attributes will turn out to be separable from substance.

We must, therefore, work on these questions as much as we can. We must also ask what is the cause of there always being coming to be, both unqualified coming to be and coming to be in a particular respect.

One sort of cause is the one we call the source of the principle of motion, and one sort is matter. Here we ought to discuss the second sort of cause; for we have discussed the first sort earlier, in the treatment of motion,⁷ where we said that one sort of <principle of motion> is unmoved for all time, and the other sort is always in motion. A consideration of the first sort of cause is a task for a different and prior <branch of> philosophy; and later we will discuss the <principle> that initiates motion in other things by being in continuous motion itself, and say which particular thing of this sort is the cause. But for now let us discuss the material cause, explaining why perishing and coming to be is never fail in nature. For, presumably, in making this clear we will also make clear both the answer to the present puzzle and the right account of unqualified perishing and coming to be.

It is puzzling enough to know what causes the continuity of coming to be, if what perishes passes into what is not and what is not is nothing—since what is not neither is something nor has any quality, quantity, or location. If, then, at every time something that is is passing away, why has

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everything not been used up and vanished long ago, if it is indeed true that there was only a limited amount from which everything coming to be comes to be? For surely the reason that coming to be does not fail is not that there is an infinite source from which things come to be. That view is impossible; for since nothing is infinite in actuality, and something can be infinite in potentiality only by division, it follows that division into ever smaller things is the only type of coming to be that never fails—and that is not what we see happen. Alternatively, then, does the fact that the perishing of $F$ is the coming to be of $G$, and the coming to be of $F$ is the perishing of $G$, explain why change is necessarily ceaseless?

This, then, should be regarded as an adequate explanation for all cases, of why coming to be and perishing belong to each being alike. If, however, we agree that the coming to be of $F$ is the perishing of $G$, and the perishing of $F$ is the coming to be of $G$, we must reconsider why we say that some things come to be or perish without qualification, whereas others do so only with some qualification; for we need to give some account of this. For sometimes we say that a thing is now perishing without qualification, not that $F$ is perishing, and that one event is an unqualified coming to be, and another an unqualified perishing. Moreover, sometimes the $F$ comes to be $G$, but the $F$ does not come to be without qualification; for we say, for instance, that the learner comes to be expert, not that he comes to be without qualification.

Now we often draw a distinction by saying that some things signify a this, and others do not; and this is why our present question arises. For it all depends on what the subject is changing into; presumably, for instance, turning into fire is both an unqualified coming to be and the perishing of something (for instance, of earth), whereas the coming to be of earth is both a sort of coming to be (not an unqualified coming to be) and an unqualified perishing (for instance, of fire). This is Parmenides’ view when he mentions two things <that something can change into>, and asserts that what is is fire and that what is not is earth. (It does not matter whether we assume fire and earth or other such things, since we are inquiring about the type, not the subject, of the change.) Turning into what is-not without qualification, therefore, is <unqualified> perishing, and turning into what

8. perishing of $F$: We have used ‘$F$’ and ‘$G$’ where Aristotle simply uses ‘this’. He might be referring either to (e.g.) paleness or to the pale thing.

9. the $F$ comes . . . qualification: In this sentence Aristotle uses ‘this’ where we have ‘the $F$’ and ‘the $G$’. His example suggests that here at least the subject is (e.g.) the pale thing that comes to be dark.

10. signify a this: In this chapter ‘this’ is applied both (a) to the category of substance, and (b) to the positive property as opposed to the negative (e.g. to the form rather than the privation). Aristotle does not argue that (a) and (b) coincide.
is without qualification is unqualified coming to be. And so one of the two elements that mark the distinction (whether they are fire and earth, or other things) will be what is, and the other will be what is not. 11

This, then, is one way to distinguish unqualified from qualified coming to be or perishing. Another way appeals to the character of the matter. For if the differentiae of a type of matter signify a this to a higher degree, what they signify is itself a substance to a higher degree; if they signify a privation, what they signify is not-being. If heat, for instance, is a <positive> predication and form, and cold a privation, and these differentiate earth and fire, <then fire will be being and earth not-being>.

Most people, however, are more inclined to believe that <coming to be and perishing> are distinguished by whether <the product> is perceptible or not: whenever there is a change into perceptible matter, they say it is a coming to be, and when it is into imperceptible matter, they say it is a perishing. For they distinguish being from not-being by whether something is perceived or not, just as what is known is what is and what is not known is what is not—for perception <in their view> counts as knowledge. Hence, just as they think they are alive and have their being by perceiving or being capable of it, so they think things have their being <by being perceived or by being perceptible>. In a way, then, they are on the track of the truth, though what they actually say is not true.

In reality, then, unqualified coming to be and perishing turn out to be different from what they are commonly believed to be. For from the point of view of perception, wind and air are beings to a lesser extent <than earth is>. Hence people say that what perishes without qualification perishes by changing into one of them, and that something comes to be <without qualification> when something changes into what is tangible (i.e. earth). In reality, however, each of them is more of a this and a form than earth is.

We have explained, then, why there is unqualified coming to be that is also something's perishing, and unqualified perishing that is also something's coming to be. The reason is that there are different types of matter, so that the matter out of which and that into which <the change occurs> may be either substance and non-substance, or substances to different degrees, or more and less perceptible.

But why are some things said to come to be without qualification, and others said merely to come to be \( F \), in other cases besides those in which things come to be from each other in the way we have described? For so far we have only determined why we do not speak in the same way of coming to be and perishing in all cases of things that change into each other, even though every coming to be is the perishing of something else

11. what is . . . what is not: These are not the existent and the non-existent, but the positive and the negative.
and every perishing is the coming to be of something else. But our further question raises a different puzzle, about why the learner is said merely to come to be expert, not to come to be without qualification, whereas <a plant> growing <from a seed> is said to come to be <without qualification>.

These cases, then, are distinguished by reference to the predications; for some things signify a this, some quality,12 some quantity. Whatever does not signify a substance, then, is said to come to be F, not to come to be without qualification. Still, in every case we speak of coming to be in <only the positive> one of the two columns;13 for instance, we recognize a coming to be in the case of substance if fire rather than earth comes to be, and in the case of quality if someone comes to be expert rather than inexpert.

We have said, then, why some things do and others do not come to be without qualification, both in general and also in the case of substances themselves. We have also explained why the subject is the material cause of the continuity of coming to be—because it is capable of changing from one contrary to another, and in every case where substances are involved, the coming to be of one thing is the perishing of another, and the perishing of one thing is the coming to be of another.

Nor should we be puzzled about why there is coming to be even though things are always being destroyed. For just as people speak of unqualified perishing whenever a thing passes into something imperceptible and into what is not, so also they speak of coming to be from what is not, whenever a thing comes to be from something imperceptible. And so whether or not the subject is something, a thing comes to be from what is not, so that things come to be from what is not and likewise perish into what is not. It is not surprising, then, that coming to be never ceases; for coming to be is the perishing of what is not, and perishing is the coming to be of what is not.

But is what is-not without qualification also one of a pair of contraries? For instance, is earth (i.e. the heavy) a thing that is not, and is fire (i.e. the light) a thing that is, or is earth also a thing that is, and is the common matter of earth and air a thing that is not? And is the matter of each one different, or <must it be the same, since otherwise> they would not come to be from each other and from their contraries? For the contraries are present in these—in fire, earth, water, and air. Or is it in a way the same and in a way different? <Apparently so;> for the subject, whatever it may be <at a particular time> is the same <subject>, but what it is <at different times> is not the same. So much, then, for these questions.

12. quality: lit. 'such'. See QUALITY.
13. two columns: These are columns listing the pairs of contrary (positive and negative) properties. See Met. 1004b27.
Let us now describe the difference between coming to be and alteration, since we say that these changes are different from each other.

A subject is different from an attribute that is by its nature said of the subject, and each of these may change. Alteration occurs whenever the subject, being perceptible, remains but changes in its attributes, these being either contraries or intermediates. A body, for instance, is at one time healthy and at another time sick, still remaining the same <body>; and the bronze is at one time round and at another time angular, still remaining the same <bronze>.

But whenever the whole <subject> changes and something perceptible does not remain as the same subject\(^\text{14}\) (as, for instance, blood comes to be from the whole seed, or air from <the whole of the> water, or water from the whole of the air), then this is a case of the coming to be of one thing, <for instance, the blood>, and the perishing of the other, <for instance, the seed>. This is so especially if the change is from something imperceptible to something perceptible (perceptible by touch, or by all the senses)—whenever, for instance, water comes to be, or perishes into air (since air is fairly imperceptible).

In such cases <of unqualified coming to be>, sometimes the same attribute (which is one of a pair of contraries) that belongs to the thing that has perished remains in the thing that has come to be, when water, for instance, comes to be from air, if both are transparent or cold. But in these cases the thing resulting from the change must not itself be an attribute of this <attribute that remains>—if it were, the change would be an alteration. Suppose that a musical man, for instance, perished, and an unmusical man came to be, and the man remains as the same thing. If, then, musicality and unmusicality were not attributes of the man in their own right,\(^\text{15}\) it would have been a coming to be of the unmusical and a perishing of the musical.\(^\text{16}\) In fact, however, each of these is an attribute of the thing that remains; that is why they are attributes of the man, and it is <only> a coming to be or perishing of the musical or unmusical man. That is why such cases count as alterations.

14. something perceptible ... subject: This might mean either (a) there is some perceptible thing that does not remain as subject, or (b) there is no perceptible subject that remains. While (a) leaves open the possibility that some perceptible subject remains (as long as some other perceptible subject does not remain), (b) rules out this possibility. Normally Aristotle's account of unqualified coming to be requires only (a).

15. attributes in their own right: This is the second sense of IN ITS OWN RIGHT distinguished at APo 73a34–b24.

16. of the unmusical ... of the musical: lit. 'of the one ... of the other'.

A change between contrary quantities, then, is growth or decay; be­tween contrary places it is locomotion; and between contrary attributes and qualities it is alteration. But when nothing remains that has <the con­trary resulting from the change> as its attribute or as any sort of coinci­dent, the change is a coming to be, and <its contrary> is a perishing.

Matter is most of all and most fully the subject that admits the <unqual­ified> coming to be and perishing <of another thing>; but the subject for the other types of change is also matter in a way, since every subject admits <its proper> contraries.

Let this, then, be our account of whether or not there is coming to be and in what way there is, and of alteration.

BOOK II

1

Our view is that there is some matter of perceptible bodies, but that it is not separable but rather is always accompanied by one of a pair of contrary properties, from which\(^\text{17}\) the so-called elements come to be. A more pre­cise account of them\(^\text{18}\) has been given elsewhere. Nevertheless, since it is in just this way that the primary bodies come to be from the matter, we must also give an account of these\(^\text{19}\), in which we take as a first principle the matter that is inseparable yet is subject for the contraries. For the hot is not matter for the cold, nor it for the hot, but what underlies is matter for both. Therefore the principle is, first, what is potentially a perceptible body, but secondly it is the pairs of contrary properties (I mean, e.g., heat and cold), and thirdly it is fire and water and the like. For the latter change into one another, and not in the way that Empedocles and others say (for there would be no alteration), but the contrary properties do not change. Nonetheless we must discuss how many and what kind <of contrary prop­erties> are principles of body. For other people postulate and use them, and say nothing about why these or why this many. (Translated S. M. Cohen)

17. The reference of 'which' here is unclear. It might refer to the 'pair of contrary properties' that immediately precedes, but more likely to the 'matter' at the begin­ning of the sentence.

18. Again, the reference of 'them' is unclear. It might refer to (a) matter and contrary properties, but more likely to (b) the elements. On option (a), the reference would be to Physics I.6–9; on (b), to De Caelo III–IV.

19. 'These' clearly refers to something different from 'them' in the previous sen­tence (see previous note). On option (a), 'these' refers to the primary bodies, i.e., the elements; on the preferable option (b), it refers to the pairs of contrary properties, which are discussed in the next chapter.