

What on earth are Aristotelian forms?

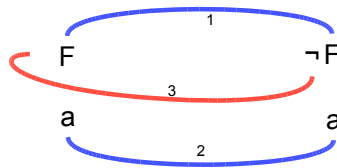
Ligerz workshop on Aristotle's *Physics*

Philipp Blum, January 27, 2018

The problem of change

Change is problematic because it both seems real and impossible. It seems real because if there were no change, you could not convince anyone that there is no change, so we would all already believe it, which we don't. It seems impossible because to say that there is change is to say that some thing has a property [...₁] and also lacks it [...₂], which is a contradiction, hence not possibly true (and to understand why inserting “at one moment” for “...₁” and “at another moment” for “...₂” should do away with the contradiction just *is* the problem of change).

The ordinary concept of change seems to be internally inconsistent, or, at least, pulls us in different directions: for change, we need both constancy, of both objects and properties (blue lines), and variation, of being had and being lacked of the very same property by the very same thing (red line):



The problem of change is that the same pattern of sameness and difference is exhibited by the scenarios ruled out by the principle of non-contradiction, i.e. something's both having and not having the very same property.

Hylomorphic change

When presenting his own account of change in *Physics* I.7, Aristotle first distinguishes between the (processes of) coming-to-be of simple things and the (processes of) coming-to-be of complex things:

ἔστι γὰρ γίγνεσθαι ἄνθρωπον μουσικόν, ἔστι δὲ τὸ μὴ μουσικὸν γίγνεσθαι μουσικὸν ἢ τὸν (190a.) μὴ μουσικὸν ἄνθρωπον ἄνθρωπον μουσικόν. ἀπλοῦν μὲν οὖν λέγω τὸ γιγνόμενον τὸν ἄνθρωπον καὶ τὸ μὴ μουσικόν, καὶ ὃ γίγνεται ἀπλοῦν, τὸ μουσικὸν συγχείμενον δὲ καὶ ὃ γίγνεται καὶ τὸ γιγνόμενον, ἔταν τὸν μὴ μουσικὸν ἄνθρωπον φῶμεν γίγνεσθαι μουσικὸν ἄνθρωπον. (189b34-190a5)

We can say the man becomes musical, or what is not-musical becomes musical, or the not-musical man becomes a musical man. Now what becomes in the first two cases – man and not-musical – I call simple, and what each becomes – musical – simple also. But when we say the not-musical man becomes a musical man, both what becomes and what it becomes are *complex*. (Aristotle 2014: 717–718)

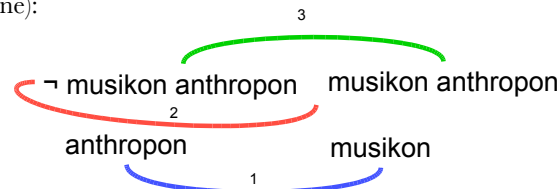
A man can come to be knowing music, and also the not knowing music can come to be knowing music, or the not knowing music man a man knowing music. I call the man and the not knowing music simple coming-to-be things, and the knowing music a simple thing which comes to be. When we say that the not knowing music man comes to be a knowing music man, both the coming-to-be thing and that which comes to be are compound. (Aristotle 1992: 15)

When Socrates becomes musical (by, e.g., learning how to play the flute), we have three changes:

1. from *anthropon* to *musikon*;
2. from *mē musikon* to *musikon*; and
3. from *mē musikon anthropon* to *musikon anthropon*

Changes of type (2) are changes *out of* something: musical comes out of non-musical. But changes of type (1) and (3) are not: it is the man who becomes a musician and the non-musical man who becomes a musical man, but we cannot say that the musician comes out of the man, nor can we say that the musical man comes out of the non-musical man. (1) and (2) are distinguished by the fact that in (1), but not in (2), the ‘coming-to-be thing’ (i.e. the thing that is changing) ‘remains’. What we designated by “anthropon” at the beginning of the change is still there at the end of it, and can now also be designated by “musikon”; the lack of musical ability in virtue of which we applied “ignorant of music”, however, is no longer there.

In this way, the hylomorphic account of change makes it consistent: while we do have a change between opposites and genuine variation (red line), we also have an underlying constancy (blue line): *together*, they result in change (green line):



The change reported in (3) is thus shown to have two aspects: one of constancy, exhibited in (1), where one and the same thing persists through change and acquires a new quality; but also one of variation, exhibited in (2), where one thing (ignorance of music) is replaced by something else (musicality) which comes out of it. It is a change not only of coming to be, but of coming to be-such-and-such, i.e. exhibits not just that the change in question is a substantial change (as the other two), but *also* that it is a qualitative change.¹

Aristotle continues by saying that this underlying thing is ‘one in number’, but not ‘one in form’:

οὐ γὰρ ταῦτόν τὸ ἀνθρώπων καὶ τὸ ἀμούσων εἶναι. καὶ τὸ μὲν ὑπομένει, τὸ δ' οὐχ ὑπομένει· τὸ μὲν μὴ ἀντικείμενον ὑπομένει (ὁ γὰρ ἀνθρώπος ὑπομένει), τὸ μὴ μουσικὸν δὲ καὶ τὸ ἀμουσον οὐχ ὑπομένει, οὐδὲ τὸ ἐξ ἀμφοῶν συγκείμενον, οἷον ὁ ἀμουσὸς ἄνθρωπος. (190a17-21)

For to be a man is not the same as to be unmusical. One part survives, the other does not: what is not an opposite survives (for the man survives), but not-musical or unmusical does not survive, nor does the compound of the two, namely the unmusical man. (Aristotle 2014: 719)

The being of a man is not the same as the being of ignorant of music[; and the one remains and the other does not. That which is not opposed remains – the man remains – but the not knowing music and the ignorant of music do not remain, and neither does the compound of the two, the ignorant of music man. (Aristotle 1992: 16)

The underlying thing is ‘one in number’ (i.e. numerically one, one in reality) because the change can be completely characterised by (1), where nothing goes out of existence. It is ‘two in form’ or (Aristotle says: equivalently) ‘two in account’ because the change is between opposites, as nothing is preserved in (2). The result of the change in (3) is complex because it is one thing to be a man and another thing to know music. It is, however, still one thing that results from the change and one thing that enters into it, because being a man and being ignorant of music (or, after the change, being musical) are one “in reality” or “in fact”.

Whenever there is qualitative change, such as the acquisition, by Socrates, of musicality, there is also substantial change: for something (Socrates, the man, the ignorant of music) comes to be a thing that was not there before (musical man). In any change, there is something composite (*suntheton*) that comes to be:

1. Can we speak of (1), (2) and (3) as three *changes*, jointly ‘making up’ the change of Socrates’ becoming musical? If so, Aristotle would be saying that substantial change is prior to qualitative change in the following sense: every qualitative change is ‘composed’ or ‘made’ out of simpler existential changes (which shouldn’t be called “substantial”, because they may involve only forms, as does (2)).

ὥστε δῆλον ἐκ τῶν εἰρημένων ὅτι τὸ γιγνώμενον ἅπαν ἀεὶ συνθετὸν ἐστί, καὶ ἔστι μὲν τι γιγνώμενον, ἔστι δὲ τι ὃ τοῦτο γίγνεται, καὶ τοῦτο διττόν· ἢ γὰρ τὸ ὑποκείμενον ἢ τὸ ἀντικείμενον. (190b10-13)

Thus, from what has been said, whatever comes to be is always complex. There is, on the one hand, something which comes to be, and again something which becomes that – the latter in two senses, either the subject or the opposite. (Aristotle 2014: 721)

From what has been said, then, it is clear that that which comes to be is always composite, and there is one thing which comes to be, and another which comes to be this, and the latter is twofold: either the underlying thing, or the thing which is opposed. (Aristotle 1992: 17)

What comes to be is *anthropos musikos*, what comes to be and underlies is *man* (the man comes to be musical) and what comes to be and is opposed is *amusical* (the ignorance of music comes to be a case of knowledge of music).

This analysis, according to Aristotle, applies to all change: everything that comes to be is composite and composed of and coming out of the underlying thing (*hupokeimenon*) and the form (*morphē*), in the way *musical man* is composed of *man* and *knowing music* and its analysis (*dialysis*) is complex, in terms of these two.

The ‘Aufhebung’ of the predecessors

The Parmenideans criticised in I.8 were wrong in thinking that there is no change and they thought this because they reasoned from a false dilemma: if something *y* comes to be, it comes to be out of something, *x*. Now either it is the case that *x* is or it is the case that *x* is not. If *x* is, then *y already* is and does not come to be. If *x* is not, then *y* cannot come to be out of it, because *ex nihilo nihil fit*.

Aristotle denies both horns of the dilemma, using his distinction between (i) coming-out-of (true of the simple things) and (ii) coming-to-be-something (true of the compound thing):

- The form, *musical*, comes-out-of something which is not: it comes out of the lack (*steresis*) of musicality, which is something which is not (i.e. is the absence of musicality), but it does not come out of it as *something which is*, but as *something which is not*.
- The matter, *man*, comes to be something which is, namely *musical man*

How should we understand the claim [(i)] that the form comes out of its lack-as-something-which-is-not (*hoti to ē mē on*)? Aristotle also uses two other expressions to talk about this: (ii) that things “come to be in a certain way out of what is not, sc. by virtue of concurrence” (*kata sumbebekos*) and (iii) that the lack is not a constituent (*enuparchontos*) of the thing that comes to be. I understand him as saying that the lack of musicality before the change, while it is a qualification of Socrates and the *terminus a quo* of the change of his becoming musical, is not an essential property of him and is to be understood not as his *having* the lack of musicality but rather as his *lacking* musicality: the lack is logically posterior to the form, even though it is temporally prior.

In I.9, Aristotle criticises the Platonists for not distinguishing between matter and form and between actuality and possibility. The starting-point of the change, *unmusical man*, according to Aristotle, is “one in number” (*arithmo*, but “two in possibility” (*dunamei*). *Unmusical* and *man* are one and the same thing, i.e. Socrates, but while *man* essentially characterises him and underlies the change, *unmusical* – the lack of musicality – is a potentiality for the opposite, musicality. The man has the lack only *kata sumbebekos*, by accident, for he has the potentiality to become musical. *Musical man* comes to be out of these two, but in different ways: it comes out of the lack of musicality, which is destroyed by the change. It also comes out of the matter in the sense that it *happens to* the matter (or perhaps rather: *happens in* the matter) that has the potentiality for it.

How should we talk about forms?

We have seen that Aristotle analyses the change of Socrates acquiring a musical ability (by, e.g., learning how to play the flute) as a process that is describable as all of the following:

- (i) from *anthropon* to *musikon*;
- (ii) from *mē musikon* to *musikon*; and
- (iii) from *mē musikon anthropon* to *musikon anthropon*

He says that *mē musikon* and *musikon* are opposites and that they are the forms of the thing that comes to be, *musikon anthropon*. We have translated “musikon” as all of: “musical”, “musician”, “having musical knowledge” and “musicality” – these four correspond to four different views on the ontology of forms, *none* of which seems to be Aristotle’s:

“**musical**” – the bare adjective – is perhaps the best, but it misleadingly suggests that forms are qualitative features in-abstracto, especially when used, as “musikon” is in Greek, with the definitive article: “ton musikon” then becomes “the musical”, which is too close to “musicality” to be acceptable.

“**musician**” is better insofar as it may be used to designate, as expressions for forms can in Aristotle’s Greek, the man over there who possess musical abilities, Socrates. It also matches with “man”, avoiding the very misleading connotation that in change (i) Socrates changes into a quality. The problem is that it is not generally available: there is no expression in English that stands to “white” or “pale” (i.e. not sunburnt, one of Aristotle’s favourite examples) in the way “musician” stands to “musical”.

“**having musical knowledge**” or, more generally, expressions of the form “being *F*”, “having the property of being *F*” are generally available, but they are not things that can be destroyed and can come into being in the way Aristotelian forms can.

“**musicality**” has the advantage that it allows for two readings, as universal and as trope as we would say nowadays, and that it may cease to be and come into being when read in the latter way (as it is in “Socrates’ musicality”); but it has the important disadvantage that we must settle on one reading and thereby prejudge the difficult question how to interpret *Metaphysics Z*, where Aristotle discusses the question in what ways forms are not only universal but also particular, a question he does not take to be decided by their verbal expressions alone.

What are they

An adequate interpretation of Aristotelian forms will have to make sense of the following claims he makes about them (Charlton 1992: 70–73):²

- The most important of these claims, even though the details are difficult and extremely controversial, is made in *Metaphysics* 1028b36–1029a9: “forms are the entities with the best claim to be called realities” (Charlton 1994: 70).
- At *Met.* H, 2043b5–6, Aristotle says that compositions (or arrangements, which he elsewhere calls forms) are not constituents of syllables and houses, even though he also says that houses and syllables *are* arrangements or compositions (*Phys.* I, 188b20–21).
- At *Phys.* I.7 191a8–12, Aristotle says that the relation between the *hupokeimenon* and the *ousia* is like the relation of (i) bronze to statue, (ii) wood to bed, (iii) the formless to “anything which has a form”, thereby at least suggesting that *STATUE* and *BED* are forms *and* realities.
- At *Phys.* II.3 195a16–21, Aristotle says that the while (i) letters, (ii) matter, (iii) fire and the like, (iv) the parts of the whole and (v) the hypotheses are the material causes, the corresponding formal

2. By listing Charlton’s evidence for his claim that “a concrete expression is just as natural [as an expression for a form] or more so”, I do not intend to subscribe to his claim that the relation of matter to form is “that of a constituent to thing constituted” (1992: 71, citing Wiggins (1967: 48)) and that *BRONZE* and *SPHERE* are “logical elements” of the brazen sphere (1992: 77).

causes (“that out of which”) – that are also final causes (“causes as what he being would be”) are (i’) syllables, (ii’) artefacts, (iii’) bodies, (iv’) wholes and (v’) the conclusion, thereby suggesting that the primed things are forms.

- At *Met.* Θ 1048a36-b6, Aristotle introduces the distinction actuality vs. potentiality by analogy to actually building vs. capable of building, awake vs. asleep, seeing vs. having the power of sight, that which is differentiated out of matter vs. matter, the finished article vs. the raw material. At *Met.* H 1045b17-19, he says: “The last matter and the form are one and the same thing, the one in possibility and the other in actuality.” Together, these again strongly suggest that BUILDING, AWAKE, SEEING etc. are forms.
- At *Met.* Λ 1069b36-1070a2, Aristotle says that that to which something changes is the form and at 1032a13-19 that “which comes to be is a man or plant or the like”.
- At *De Gen. et Corr.* I 321b19-34, Aristotle says that when a living thing grows, it is the form, not the matter, which gets larger.

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