

Aristotelian Forms and Representation by Identity

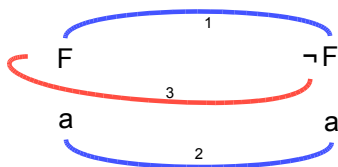
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The problem of change

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.

Aristotelian Change and Object Constancy

When Socrates acquires the capacity to be musical, i.e. by learning to play the flute, Aristotle describes this change thus in the *Physics* 1.7:

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 μουσικόν· συγχείμενον δὲ καὶ ὃ γίγνεται καὶ τὸ γιγνόμενον, ὅταν 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)

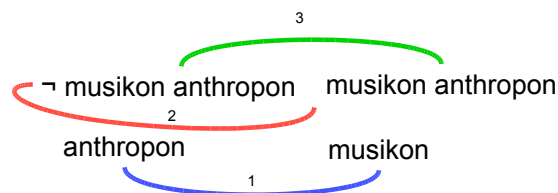
A man can come to be knowing music, and also the not knowing music can come to be knowing music, or the not knowing music man a man knowing music. I call the man and the not knowing music simple coming-to-be things, and the knowing music a simple thing which comes to be. When we say that the not knowing 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 transitions, which together constitute the change:

1. **matter** from *anthropon* to *musikon*: a man, who is potentially musical and has the capacity to become a musician (*to musikon*, becomes a musician; a musician comes to be from a man; a change happens to a man: he becomes a musician;
2. **form** from *mē musikon* to *musikon*: musicality or musical ability (*to musikon*) comes to be, replaces non-musicality or absence, mere potentiality, of musical ability;
3. **compound** from *mē musikon anthropon* to *musikon anthropon*: a musical man (*to anthropon musikon*) comes to be, a non-musical man goes out of existence.

Transitions 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

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)).

Even though we have, both in (2) and (3), something new coming to be (a musician in the first case, a musical man in the second), the change of Socrates' learning music as a whole is a qualitative, not a substantial change: this is because the underlying thing remains the same (cf. p. ?? below):

Ἐν δὲ τούτοις ἂν τι ὑπομένη πάθος τὸ αὐτὸ ἐναντιώσεως ἐν τῷ γενομένῳ καὶ τῷ φθαρέντι, οἷον ὅταν ἐξ ἀέρος ὕδωρ, εἰ ἄμφω διαφανῆ ἢ ψυχρά, οὐ δεῖ τούτου θάτερον πάθος εἶναι εἰς ὃ μεταβάλλει. Εἰ δὲ μή, ἔσται ἀλλοίωσις, οἷον ὁ μουσικός ἀνθρώπος ἐφθάρη, ἀνθρώπος δ' ἄμουσος ἐγένετο, ὃ δ' ἀνθρώπος ὑπομένει τὸ αὐτό. Εἰ μὲν οὖν τούτου μὴ πάθος ᾗ καθ' αὐτὸ ἢ μουσική καὶ ἢ ἀμουσία, τοῦ μὲν γένεσις ᾗ ἂν, τοῦ δὲ φθορά· διὸ ἀνθρώπου μὲν ταῦτα πάθη, ἀνθρώπου δὲ μουσικοῦ καὶ ἀνθρώπου ἀμούσου γένεσις καὶ φθορά· οὐδὲ δὲ πάθος τοῦτο τοῦ ὑπομένουτος. Διὸ ἀλλοίωσις τὰ τοιαῦτα. (319b21-31)

If, however, in such cases, any property (being one of a pair of contraries) persists, in the thing that has come-to-be, the same as it was in the thing which has passed-away – if, e.g., when water comes-to-be out of air, both are transparent or cold – the *second* thing, into which the *first* changes, must not be a property of this. Otherwise the change will be alteration. Suppose, e.g., that *the musical man* passed-away and *an unmusical man* came-to-be, and that *the man* persists as something identical. Now, if musicalness (and unmusicalness) had not been in itself a property of the man, these changes would have been a coming-to-be of unmusicalness and a passing-away of musicalness; but in fact a property of the persistent thing. (Hence these are properties of the man, and of *musical man* and *unmusical man*, there is a passing-away and a coming-to-be.) Consequently such changes are alteration. (Aristotle, 2014, 1144–1145)

If some affection in that which passes out of existence remains in that which comes into existence, as transparent and cold do when air turns to water, the thing which the change is a change to must not be an affection of this. If it is, the change will be an alteration. Thus suppose a man who knows music ceases to exist, and a man who is ignorant of music comes into being: the man remains the same. Now if knowledge and ignorance of music were not affections of this, it would be a case of coming to be and passing away [...] but as they are, it is a case of alteration.

It is because the end-product, the *terminus ad quem*, of the change (musical man) is not describable except by reference to its starting point, the *terminus a quo* (man, i.e. unmusical man), and thus “parasitic on, called real because of its relation to, anything which remains through the change” (Charlton, 1992, 75), that the change is an alteration.

It is to substantial change that Aristotle turns next. Substantial change occurs when something comes to be *something*, a thing (*ousia*); but whatever the process (change of shape, addition, subtraction, composition or alteration), something undergoes the process and thus must enter into it.

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 (ὃ γὰρ ἀνθρώπος ὑπομένει), τὸ μὴ μουσικὸν δὲ καὶ τὸ ἀμούσον οὐχ ὑπομένει, οὐδὲ τὸ ἐξ ἀμφοῖν συγκείμενον, οἷον ὁ ἀμούσος ἀνθρώπος. (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:

ὥστε δῆλον ἐκ τῶν εἰρημένων ὅτι τὸ γιγνόμενον ἅπαν ἀεὶ συνθετὸν ἔστι, καὶ ἔστι μὲν τι γιγνόμενον, ἔστι δὲ τι ὁ τοῦτο γίγνεται, καὶ τοῦτο διττὸν· 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. This allows for all three answers to the question how many principles of change there are:

- one**, because the thing that changes (that comes to be), *musical man*, is numerically one with *amusical man*;
- two**, because the thing that changes is two in form (*eidei duo*): the musical man is, essentially, the underlying thing, *man*, but also, by concurrence (i.e. accidentally), the lack (*steresis*): *amusical*.
- three**, because in addition to these two, we have the form (*knowledge of music* which is one, and which also comes to be).

In line with his endoxic method, Aristotle proceeds to perform what Hegelians like to call the three-fold 'Aufhebung' of the thesis-antithesis structure by the synthesis: its annihilation, its preservation and its lifting to a 'next level'. Concretely, this requires showing (i) that they were wrong, (ii) why they were wrong and (iii) what they got right (what they 'dimly saw' but did not manage to correctly articulate).

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*.

The Platonists, by contrast, attribute the principle of change to the form and take their dual matter (which Aristotle takes to be the space/receptacle of the *Timaeus*) to be uniformly non-existent.² Because they thus think that all change is from what-is-not, they cannot explain why the forms would undergo or initiate a change: their forms are both absolute and unchanging, after all. 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*

2. Or, at least: part of what is not. Charlton mentions that ?, 92 points out that Aristotle says in *Met.* N 1089a20-21 that by "what is not" Plato meant what is false, or, at least, what is negative described (as not earth, not air, not fire, nor water, *Tim.* 51a5).

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.

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, expressings 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.

An additional problem is the following: it has been widely discussed, especially in the medieval commentary tradition, whether Aristotelian forms are individuating, whether the form of Socrates is ‘specific’ enough to individuate him, i.e. whether it is such that no other thing does, or even could, share with Socrates its form. All of the proposed translations decide this question, the first three and the first version of the fourth positively, the second, trope, version of the fourth negatively. The ques-

tion, however, should be left open: it is questionable whether it can be answered by what Aristotle says about forms at all, but it should certainly not already be answered by his official introduction of the term.

For the time being, I will refer to Aristotelian forms with small caps: “MUSICAL” / “MUSIKOS” / “to MUSIKOS” are thus supposed to stand for the simple thing that comes into being out of its opposite in a change of the above kind, i.e. the Aristotelian form, whatever it is. Introducing ‘form-quotation’ in this way, I hope, allows us, at least temporarily, to reconcile two interpretative desiderata: (i) to make Aristotle’s sentences grammatical (as they are, I am told, in Greek),³ and, at the same time, (ii) not to prejudge the exegetical and systematic questions outlined above.

3. This, I surmise, is the main motivation of translators to introduce ordinary mention-quotes, though it is clear (and important!) that Aristotle is not talking about words or their meaning when he is discussing forms.

References

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