

Structure and Aristotelian Forms

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The Problem of Structure

Relations have (at least) two essential features properties are lacking: direction and order. If aRb we may both ask whether R holds from a to b or in the other direction and whether R holds of a and b in this or the opposite order. The two questions are different, but correlated. We may choose, without loss of generality, a binary relation $R(x, y)$ as our example. Suppose it holds between a and b , in this order. It follows:

- that the relational fact $R(a, b)$ is *ordered*; it has an internal structure and consists of (at least) two parts, a and b , distinguished by *how* they stand in the relation R : a is R -ing b while b is R -ed by a ;
- that, within the relation fact $R(a, b)$, R not simply holds, but holds *in a certain direction*: it holds from a to b , and is thereby different from its converse which would hold from b to a .

Armstrong and Fine argue for the identity of a 's being on top of b and b 's being below of a , and of Don José's loving Carmen and Carmen's being loved by Don José on ontological grounds.¹

Suppose that Othello (a) loves Desdemona (b), a fact we may equally well describe as Desdemona's being loved by Othello. Suppose furthermore that Desdemona does not love Othello, or, what comes to the same thing, that Othello is not loved by Desdemona. Without prejudging questions of identity, we can see these states as 'arising' out of the first by inversions of direction (D) or of order (O).

Because, in this case, love is unrequited, we have non-identities holding on all four sides of the square: Order forces us to distinguish Rab and Rba . Direction forces us to distinguish Rba and $\check{R}ba$. But their interplay forces us to identify Rab and $\check{R}ba$: we have identities along the two diagonals. This diagram thus 'commutes', i.e. $O(D(a \rightarrow b)) = D(O(a \rightarrow b))$. I submit that this is explained by the fact that one operation is the converse of the other, i.e. only one of order or direction is fundamental. But which one is it? I argue that it is order that explains direction, not direction that explains order.

What conception of R allows us to say that

- = " Rab " and " $\check{R}(ba)$ " denote the same relational fact;
- pos \check{R} holds, but R does not hold, between a and b (in this order);
- neg \check{R} holds, but R does not hold, between a and b (in this order).

To solve the problem of converses – to explain differential applicability (**pos** and **neg**) without intrinsic directions (\equiv) –, we need to loosen the connection between direction and order.

We may, and must, if the argument from the problem of converses is sound, hold that both "loving" and "being loved" stand for the same relation, even though they apply to their relata in a different order. To do this, we must loosen the connection between relations and direction: even though the 'directions' of R

1. Armstrong (2004: 149) calls the view that " aRb " and " bRa ", for some symmetric relation R , represent two different necessarily coexistent states of affairs a "quite serious case of metaphysical double vision".

and \check{R} are different, this does not distinguish them as relations. The relation, equally well denoted by “ R ” or “ \check{R} ”, is not intrinsically, but only extrinsically directed. In this sense, it is “undirected”, or “neutral” (with respect to direction).

“Neutral relations”, Fine (2000: 3) says, do not hold of their arguments in any specifiable order. Fine’s starting point, as Castañeda’s, is the apparent absurdity of the claim that the fact of a ’s being to the right of b is different from the fact of b ’s being to the left of a . Fine’s conclusion is similar to Williamson’s: we cannot, in general, speak of the “first” and the “second” argument of some relation, identifying these in terms of closeness to the relational expression or their spatial position with respect to it. Similarly, Fine (2000: 6) concludes that “[neutral] relations should [...] be taken to apply to their objects without regard to the order in which they might be given”.

If we give up on the idea, as both Williamson and Fine urge, that relations relate their terms in some specific order, how can we then account for their differential applicability, i.e. the fact that the loving relation may hold between Don José and Carmen but fail to hold between Carmen and Don José? Fine presents us with two options: positionalism, which reifies argument places and includes them as constituents into relational facts, and anti-positionalism, which takes it to be a brute fact that (some) relations may, when applied to some given terms, yield more than one relational complex.

Fine (2000: 9) construes both these positions as introducing further relata, “for if there were not [any further relata] and if the notion [of exemplification] were indeed order-insensitive, then we would be left with something like the attenuated form of exemplification described above and there would be no way to account for differential application”. This does not follow, however. Positionalism, while committed to argument-places or ‘positions’, can incorporate them into the relation: they can contribute to the ontology of the relational fact not by being further relata related by the relation, but rather by being essential parts of the relation itself. Similarly, anti-positionalism can hold that the similarity between co-mannered completions (relational facts in which, as a directionalist would say, the relation applies to its arguments in the same order) is extrinsic, but non-relational.

Even amended in this way, Fine’s menu of options, however, is not exhaustive: it does not follow from the fact that relations do not exhibit *intrinsic* directionality that they are not directed at all. One and the same relation, $R = \check{R}$, could be extrinsically directed one way when exemplified by Othello and Desdemona in this order and be extrinsically directed another way when exemplified by Desdemona and Othello in this order.

What, on earth, are Aristotelian forms?

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 ἀνθρώπου μουσικόν, ἔστι δὲ τὸ μὴ μουσικὸν γίγνεσθαι μουσικόν ἢ τὸν (190a.) μὴ μουσικὸν ἀνθρώπου ἀνθρώπου μουσικόν. ἀπλοῦν μὲν οὖν λέγω τὸ γιγνώμενον τὸν ἀνθρώπου καὶ τὸ μὴ μουσικόν, καὶ ὃ γίγνεται ἀπλοῦν, τὸ μουσικόν-συγκείμενον δὲ καὶ ὃ γίγνεται καὶ τὸ γιγνώμενον, ὅταν τὸν μὴ μουσικὸν ἀνθρώπου φῶμεν γίγνεσθαι μουσικὸν ἀνθρώπου. (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 204: 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.

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.²

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 ἄνθρωπος ὑπομένει), τὸ μὴ μουσικὸν δὲ καὶ τὸ ἀμούσον οὐχ ὑπομένει, οὐδὲ τὸ ἐξ ἀμφοῖν συγχείμενον, οἷον ὁ ἀμούσος 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; [a]nd 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”.

Extrinsic essences

Extrinsic entities are entities that exist extrinsically, i.e. that it is either extrinsically true of them that they exist or that they exemplify the property *existence* extrinsically. Some, but not all, essentially dependent entities (entities *x* such that it is essential to *x* to be *R*-related to at least some other entity) are extrinsic; some may also be the intrinsic grounds of their essential relations: God, e.g., may be intrinsically such that it is of His essence to create the world (or the best of all possible worlds), but He is not an extrinsic entity. Some, but not all, grounded entities are extrinsic; some may also be the intrinsic grounds of the grounding relation they stand in. A disposition may be intrinsically such that it grounds its being manifested, where this itself is a grounding relation. But manifestations are not extrinsic entities.

Can we say that all *other* essentially dependent entities, and all *other* grounded entities are extrinsic? This would be:

2. 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)).

ont dep $\forall x(\exists y(\Box_x xRy \wedge \Diamond(\exists z(Dupl(z,x) \wedge \neg\Box_z zRy)) \rightarrow x$ is extrinsic): extrinsically essentially related entities are extrinsic.

grounded $\forall x(\exists y(Gr(Ey, Ex) \wedge \neg Gr(Ex, Gr(Ey, Ex))) \rightarrow x$ is extrinsic): extrinsically grounded entities are extrinsic.

To get sufficient conditions, we have to combine the two: x is extrinsic iff it is true in virtue of the essence of x that there is some distinct thing, y , in which the existence of x is grounded. Extrinsic entities cannot exist lonely and they cannot exist without being grounded. In this sense, they do not have “their entire existential fundament in themselves” and are what Ingarden (1964-1965: §12) calls “heteronomous” (*seinsheteronom, heteronomiczny*). They are also “derivative” (*seinsabgeleitet, pochodny*) insofar as they “by [their] essence, can exist only by being created by another object”.³

The grounding relation between the extrinsic entity and its base may be contingent, *ceteris paribus* and *ceteris absentibus*. It may well be that the existence of the base by itself is not sufficient for the extrinsic entity to exist.

Extrinsic entities are essentially grounded in their grounds. They are grounded, i.e. non-fundamental, and they have an extrinsic essence, as it is part of their nature to be so grounded. Their essence, however, may still be non-relational, if they include their ground as a part, as many, or perhaps all of them do.

Is everything that extrinsically has some of its essential properties an extrinsic entity or could there be fundamental (ungrounded) or only accidentally grounded entities that also has some of its essential properties extrinsically? I do not see how this could be possible, but I have no argument. **Ideas?**

If everything that has an extrinsic essence is an extrinsic thing, then perhaps we could say that things that are not extrinsic (i.e. things that have an intrinsic essence) are substances. We would then have a dichotomy between extrinsic things and substances, relative to whether they exemplify some of their essential properties extrinsically or not.

Such a dichotomy does not exclude non-fundamental substances, but it does require that their being grounded holds not in virtue of them. What does it then hold in virtue of? Non-fundamental substances are grounded either in other substances or in extrinsic things.

- In the first case, they are so grounded in virtue of their ground, of which they are the ‘metaphysical effects’: all by itself, the substantial ground is able to bring about, by some type of metaphysical super-causation, its substantial effect. The properties in virtue of which the ground grounds the grounding may be intrinsic or extrinsic. Extrinsic grounding of grounding relations by their grounds is not excluded. a may be extrinsically the ground of the grounding of b by a .
- Is the second case, some substance grounded in an extrinsic thing, possible at all? I do not see why not. **But perhaps you do?**

Fundamental entities must be substances, but again they may be extrinsic grounds, as long as this is only accidental to them. This follows from the argument below. The argument below also shows that nothing that has an extrinsic essence can be a substance, i.e., assuming the dichotomy, that everything that has an extrinsic essence is an extrinsic thing, i.e. extrinsically grounded.

Suppose that a grounds b . In what is this grounded?

- If both a and b are substances, then a is the ground. That it is grounded in a cannot be essential to b in this case: it must be compatible with b ’s nature that it be grounded in something else or not grounded at all.

3. Chrudzimski (2015: 215-216) claims that Ingarden thinks derivativeness is entailed by heteronomy because he identifies the external existential fundament of some thing with its creator.

- If only *a*, but not *b* is a substance, then *b* is the ground. It only follows that *b* is an extrinsic entity if *b* essentially is the ground.
- If neither *a* nor *b* is a substance, then it is also grounded in *b*. Again, it only follows that *b* is an extrinsic entity if *b* essentially is the ground.
- If *a* is not a substance, but *b* is, then
 - if *a* is the ground, then *a* is an extrinsic thing only if *a* essentially is the ground. But how could a non-substance be essentially such that it grounds a substance? **Perhaps you see how.**
 - if *b* is the ground, then it cannot be essential to *b* to be so grounded. But can it be accidental to a substance to be grounded in some non-substance? (This was the second query above).
 - Fortunately, a third option is available. The ground in virtue of which a substance is grounded in a non-substance is the form of the substance: *b* is a hylomorphic compound, and the grounding relation between it and its non-substantial ground *a* is grounded in *bs* form.

Forms are not parts

A problem concerning the activity of the form: to distinguish between mere heaps and substances, Koslicki both restricts composition and construes the form as a part – but why do both?

- (i) If the form is a part, then the substance and the heap of its material parts differ in parts; the heap is not a substance because it has no form as part. Composition does not need to be restricted: when the parts are dispersed, its form goes out of existence and is hence no longer available for arbitrary summing.
- (ii) If composition is restricted and “takes place only when the material parts which come to compose a concrete particular object satisfy certain conditions which are set by the formal components that are associated with the whole in question” (Koslicki, ms., p28), then the form must ‘active’, ie. something that sets conditions, ie. a property. Then there is no need to assume that it’s also a part.

To problematise the double life of forms, consider the hylomorphic answer to the grounding problem: the grounding problem is to explain the modal difference between the substance and its matter in terms of essential differences between them. On Koslicki’s view, the explanation is that the substance, but not the matter has the form as a part. But is this an explanation in terms of essence? In the sense of (i), yes, because the part that makes for the mereological difference is the form, which is at least part of the essence: properties the substance has in virtue of having its form are had essentially. In the sense of (ii), no: the having resp. lacking of the form only constitutes an essential difference between the matter and the substance if the substance but not the matter has it essentially. Having the form is a property even if forms are not predicable.

Koslicki’s answer: essence plays a role in explaining why the brute mereological difference explains the modal difference. Modal differences supervene on mereological differences if the parts are had essentially if at all (ie because the part in question is the form part).

A problem concerning the explanation of change: One (or perhaps: the) motivation for hylomorphism: to satisfy the incompatibility condition on change, you need a succession of two different things; to satisfy the proper subject condition, you need an unchanging thing. If we have only one of them, we don’t have change. But do we have change if we have both? We call the first “form”, the latter “matter”. Crucial question: in what sense does changing form + unchanging matter result in changing compound? Two subquestions:

- (i) what are the relations between (i-a) form and the compound, (i-b) matter and the compound, (i-c) form and matter? they must be of the type that underwrites our epistemic right to infer what happens with the compound from (and, more ambitiously, explain by) what happens with matter and form;
- (ii) in what sense is the situation asymmetric enough to ascribe change to the compound? why do we privilege the change in the form over the constancy in the matter?

“Parthood” as an answer to the first two questions of (i) has problems with (ii). This has to do with it’s not directly answering the third question of (i), ie. it’s not giving us a real, direct, relation between the form and the matter.

Substances (ontologically independent things) have intrinsic essences

Suppose y is a substance that is essentially F and F is extrinsic to y . This means that there is an intrinsic duplicate y' of y that is not F . Because y' is not F and y is essentially F , what it is to be y' and what it is to be y are two different (sets, conjunctions of) properties: the latter but not the first entails F . But the change from the first to the second is, by definition, a Cambridge change: y could become what it is to be y' simply in virtue of a change in something else. Ultimately, this has to be a change in the intrinsic property of something (because all Cambridge change piggy-backs on intrinsic change) and this change has to be excluded by every real definition of y .

Thus all real definitions of y mention something x numerically different from y . They do so (i) by ascribing to this x some property F intrinsic to x such that it is in virtue of x being F that y is what it is and (ii) by ascribing to x and y some relation R . So y is what it is partly in virtue of some x having the intrinsic property F . I distinguish three cases in descending order of personal conviction:

- If all real definitions mention the same x , then y is essentially dependent (identity dependent) on x and cannot be what it is unless x exists (for x has to exist to be F , if F is intrinsic to x).
 - On the standard non-modal conception of essence, essential properties are *de re* necessary. So essential dependence implies ontological dependence. On the standard conception, an essentially dependent thing cannot be a substance.
 - If we allow for contingent essences, y could still exist if x would not exist, or not be F . But y would not then be what it is. So suppose y has its extrinsic essence contingently. It would still not be a substance, because something else z , of which it is a proper part, has a better claim to be a substance. ‘Construct’ z by recursion. If x has an intrinsic essence, $z = x + y$. If x has an extrinsic essence in virtue of being essentially dependent on w , then $z = x + y + w$. If x has an extrinsic essence in virtue of being generically essentially dependent on some G , then z is the sum of x , of y and of the disjunctive sum of all G s. z has its essence intrinsically, because everything it depends on is included among its parts. Nothing is a substance if it is a proper part of something that has a better claim to be a substance.
- If different real definitions mention different things, y is only generically essentially dependent on there being F s: it is essential to y that there is an x such that Fx and Rxy . If F is an intrinsic property, then it is an intrinsic property of the world that there are F s (for intrinsic properties of parts are intrinsic to the whole). If y is a substance, then it could be a world and have the same intrinsic properties than it actually has, for a substance is a combinatorial unit and could exist alone. So y could have the property of being such that there are F s intrinsically. If it had it intrinsically, it would also intrinsically be such that it stands in relation R to some F . Otherwise, it would have a duplicate which does not stand in relation R to any F , even though every duplicate is accompanied by F s. It is, however, hard to see why it could fail to stand in relation R to any of the F s. So if y were a world, then it would have its essence intrinsically. It would also be a duplicate, so y has its generically dependent essence intrinsically.

So if y has an extrinsic essence, y is not a substance. Substances have their essential properties intrinsically.

Perhaps there is a more direct way: To be a substance is to be ontologically independent, ie to be able to exist alone, be a world. If essential properties are *de re* necessary, and every extrinsic property is relational, then it would not just be a world but also have the same essential properties it actually has. So one of this

property would be relational but it could be relational only with respect to some of its parts. But then it would still be intrinsic. So it is intrinsic also in the actual world.⁴

Substantial complex wholes are grounded in their proper parts

If x is a proper part of y and x does not partially ground y , then either y is fundamental or fully grounded in something else $z \neq x$.

- Suppose y is fundamental; either x is also fundamental or it has a ground z . If x is also fundamental, then it cannot be a proper part of fundamental y , for the fundamental level (if there is one) does not exhibit mereological complexity. If x has a partial ground z and x were a proper part of y , then z would also partially ground y . If something has a partial ground, it also has a full ground, so y could not be fundamental. So x cannot be a proper part of fundamental y .
- Suppose y is fully grounded in z . To fully ground something is to fully ground its parts. So if x were a part of y , then z would be a full ground for x as well, i.e. x and y would have the same full ground, without standing themselves in any grounding relation, which is impossible unless $x = y$.

So in both cases x is not a proper part of y . Contrapositively, if x is a proper part of y , then x partially grounds y .

Grounded substances are grounded only in their parts

If y is a substance and x partially grounds y then it is essential to y to be so grounded. If some real definition of y would leave it open what grounds, if any, y has, then these grounds (or even y 's being grounded at all) do not help determine the identity of y . But certainly being grounded (or fundamental) is part of what it is to be y . So suppose y is partially grounded in x , but accidentally so. If y 's actual grounds do not help determine the identity of y , y is multiply groundable: it's being what it is is compatible with it's being grounded in x and compatible with it's being grounded in $z \neq x$. But it's not compatible with y not being grounded at all. So the real definition of y must specify what the grounds for y that are compatible with y 's essence have in common. Suppose this is property F . Then y is, contrary to our assumption, *not* partially grounded in x : instead it is partially grounded in there being something that is F .

If y is a substance grounded in x it is thus essential and hence intrinsic to y (alone) to be grounded in x : every duplicate of y is grounded in x . x grounds y in virtue of some property F of x which is intrinsic to y . The property of being such that x is F is also intrinsic to y because every duplicate of y is grounded in x (and not just: every duplicate of y is grounded in a duplicate of x). So there is what I call 'intrinsic match' between x and y : if it follows from F being intrinsic to x that it is intrinsic to y to be such that x is F then x is a part of y . My hand is a part of me because (and also only if) it is intrinsic to me to have a red / warm / formed to a fist in virtue of my hand being red / warm / formed to a fist.

So if y is a substance grounded in x , then x is a part of y .

Where hylomorphism comes into the picture

If complex substantial wholes are grounded only in their parts, if partial grounds are parts of full grounds and full grounding is monotone with respect to parthood – if x is a full ground of y , then any whole of which x is a part is also a full ground of y –, then substances are not identical to the sum of their parts.

4. If we allow for contingent essential properties, we have to assume that being a substance is an essential property but not among them. So in the world where the substance exists alone it is perhaps no longer the thing it actually is, but it is still a substance. If we in addition allow for non-relational extrinsic properties, we also have to assume that being a substance is not just an essential, but also an intrinsic property of things.

For substances are then grounded in some sum of their parts, hence also in the sum of all their parts, and grounding is irreflexive.

If grounded complex substances are grounded in all and only their parts, we may ask in virtue of what they are so grounded. What explains this grounding fact? That the parts have a certain form. This does not mean that the form is another part of the substance: the substance is also something else than the parts (Met. Z.17) and the something else that the substance also is is the form.

That the parts have a certain form is a qualitative, contingent fact about the parts. But it is a fundamental fact, it is not further explainable by appeal to further things other than the parts. What is grounded by this fundamental fact is something more than the parts or their sum, namely the complex substantial whole which is not just the parts but also the form. The form is part of the explanation why the parts ground the substance, but it is not a part of the substance. Nevertheless, it is essential to it, because it is part of its real definition.

Applications

Existence condition for substances: for the substance to exist, its parts have to exist, and it has to have a formal part that organises the material parts. But how does the formal part do that? It's not just a part, but also active. But is it not then a part in another sense of 'part'? Yes, it is: it is part of the explanation why the substance exists but it is not part of the substance. Because the substance is not identical to the sum of its parts, composition does not have to be restricted.

The reduction of substantive change to qualitative change with respect to essential properties leaves open the question why the loss of some essential property should produce / entail / constitute the ceasing to exist of its bearer. This is explained by the full grounding of the grounding fact by the form: if the form no longer explains why the parts ground the substance then the substance no longer is what it (also) is. It would then be just the parts, so it cannot be grounded in them any more (because grounding is irreflexive), so it goes out of existence because it loses any ground and cannot become fundamental. To remain grounded, it would need to acquire new parts (in order to be still grounded in its parts). But in every change something has to remain constant: the substance cannot simultaneously change its form and its matter.

Exemplification may be one of the hylomorphic ties. Koslicki argues that forms are not properties of the compounds of which they are the forms, i.e. that 'being the form of' is not a relation of exemplification. But this does not rule out that forms are not properties *of the matter!* As far as I can see, the following is a stable combination of views: (i-a), the relation between the form and the compound, is characterisation; (i-b), the relation between the matter and the compound, is grounding / parthood; (i-c), the relation between form and matter, is exemplification.

Intrinsic individuation of substances through universal forms: If the form is a property of the parts, is it universal or particular? If it is particular, it must be a part of the substance, because it can only become particularised through its being a part of a particular. But if the form is particularised by what it is the form of then it cannot explanatorily individuate its bearer. So it must be universal. But how can it then be individuating? It does not have to be individuating by its own nature: it can individuate not in virtue of what it is but in virtue of what it does. "What it does" is to be exemplified. But how can exemplifications of universals individuate? Answer: they just can. Argument: to accept universals is to accept primitive multilocation: the universal insofar as it is here is different from the universal insofar as it is there, but still the same universal. The universal insofar as it is here is the particularised universal, and it is particularised by a certain matter. The form alone organises, but only form and matter together particularise. In this sense, this form of hylomorphism is non-reductive: substances are not just compounds of matter and form, they are portions of matter exemplifying a form.

References

- Aristotle, 1992. *Physics, Books I and II*. 2 edition. Clarendon Aristotle Series, ed. J.L. Ackrill and Lindsay Judson, Oxford: Clarendon Press. Translated by William Charlton.
- Aristotle, 2014. *The Complete Works of Aristotle – The Revised Oxford Translation*. Princeton, New Jersey: Princeton University Press.
- Armstrong, David M., 2004. How Do Particulars Stand to Universals? In Zimmerman, Dean W. (editor) *Oxford Studies in Metaphysics*, volume I, pp. 139–154. Oxford: Clarendon Press.
- Chrudzinski, Arkadiusz, 2015. Ingarden on Modes of Being. In Leclercq, Bruno, Sébastien Richard & Denis Seron (editors) *Objects and Pseudo-Objects*, pp. 199–222. Number 62 in *Philosophische Analyse / Philosophical Analysis*, Berlin: Walter De Gruyter.
- Fine, Kit, 2000. Neutral Relations. *The Philosophical Review* 109(1): 1–33.
- Ingarden, Roman, 1964-1965. *Der Streit um die Existenz der Welt: Existentialontologie und Formalontologie*. Berlin: Walter de Gruyter.