

## Koslicki on Matter and Form

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In her book *Form, Matter, Substance*<sup>1</sup>, Kathrin Koslicki offers an interpretation of hylomorphism. For obvious reasons, any interpretation of hylomorphism is based on a certain conception of matter (*hylē*) and on a certain conception of form (*morphē*). It is, therefore, a natural approach to Kathrin Koslicki's hylomorphism to examine its basic conceptions of matter and form.

Koslicki favours a conception of matter which she calls »Matter as Hylomorphic Compounds« (p. 32) or »The Hylomorphic Conception of Matter« (p. 57). She offers two formulations of this conception, one with amendment and one without. The formulation *without* amendment is this:

»*Matter as Hylomorphic Compounds*: The material parts of matter-form compounds are themselves matter-form compounds.« (32)

The formulation *with* amendment is this:

»*Matter as Hylomorphic Compounds*: The material parts of matter-form compounds are themselves matter-form compounds, unless or until we reach an empirically confirmed level in the compositional hierarchy at which the material parts of matter-form compounds are not themselves structured wholes.« (59)

According to Koslicki, the amendment is added »[i]n order for the hylomorphic conception of matter to be compatible with [...] alternative possibilities for what might underlie substantial change at micro-physical levels« (59). Which alternative possibilities does she have in mind? They are the following two:

- »(i) the possibility of infinitely descending chains consisting of ever smaller matter-form compounds whose material parts are themselves matter-form compounds«;
- »(ii) the possibility that we might eventually reach a point in the compositional hierarchy at which matter-form compounds

1 K. Koslicki, *Form, Matter, Substance* (Oxford 2018).

are composed of material parts which are not themselves structured wholes.« (59)

From the logical point of view, the following needs to be said about this: Koslicki's *unamended* Hylomorphic Conception of Matter does not need to be made compatible with possibility (i); for it entails the actuality of this possibility: if the material parts of matter-form compounds are themselves matter-form compounds, then there are bound to be infinitely descending chains consisting of ever smaller matter-form compounds whose material parts are themselves matter-form compounds. At least, this is bound to be the case if every matter-form compound has a *proper* material part, and I don't see how it could be the case that some matter-form compound has no proper material part; if it didn't have one (in other words, if every material part of it were identical with it), why call it a »matter-form compound«? It would not be a *material compound*, and a fortiori not a *matter-form compound*.

Thus, Koslicki's *unamended* Hylomorphic Conception of Matter leads to an infinite regress of composition. I don't think that Aristotle would have relished this consequence. Koslicki's *amended* Hylomorphic Conception of Matter does, of course, avoid *entailing* an infinite regress of composition. However, it has other shortcomings, shortcomings it shares with the *unamended* Conception.

For one thing, Koslicki's Hylomorphic Conception of Matter, whether *unamended* or *amended*, simply does not tell us what *matter* is. I do not mean that it gives no definition of matter; *that*, perhaps, would be asking too much. No, I mean that it does not give us any idea at all of what matter might be. Why, on earth, is the Hylomorphic Conception of Matter called »hylomorphic« by Koslicki? Where is the *hylē* in it? It seems that *hylē* and *matter* are just words here, and, to boot, entirely unnecessary words. Without any loss of ontologically relevant content, Koslicki's *unamended* Hylomorphic Conception of Matter can be reformulated as follows:

»The material parts of material particulars are themselves material particulars.«

And without any loss of ontologically relevant content, Koslicki's *amended* Hylomorphic Conception of Matter can be reformulated as follows:

»The material parts of material particulars are themselves material particulars, unless or until we reach an empirically confirmed level in the compositional hierarchy at which material particulars are composed of material parts which are not themselves structured wholes.«

Evidently, the *amended* Hylomorphic Conception of Matter allows the possibility that, at some level of composition (Koslicki has in mind some micro-physical level), the material parts of material particulars might not be material particulars. This entirely negative idea, without positive conceptual content, is all that Koslicki has to offer in the direction of a proper conception of matter. For someone who wishes to »defend a hylomorphic approach to the metaphysics of concrete particular objects« (2) this seems to me a bit meagre. Where is the *hylē* for the *morphē*?

A different way of putting my criticism is this: Koslicki is more or less content with a *relative and nominal* conception of matter: relative to a given level of composition L, one can call the material particulars which, on that level, compose a material particular X, *the matter of X relative to L*. Fine. But one might also call them *the material parts, or constituents, of X relative to L*. And this would have the advantage of being far less misleading for readers who, not unreasonably, expect to be told something with *substantial* content about *hylomorphism* (or as one also says today: *hylemorphism*). We should recall here that one of the meanings of »substance« – in fact, an Aristotelian meaning – is *matter*;<sup>2</sup> the word »substance« always carries the connotations of ontological absoluteness, primacy, ultimacy, in any case, the connotations of the non-relative and non-intermediate. Thus, what is ontologically reducible to something else cannot be *matter*, cannot be *matter qua substance*, cannot be *prime matter*. And Koslicki's relative matter (or rather: relative matters) is (are) ontologically reducible – in a most obvious way – to something else: to material particulars as parts of material particulars.<sup>3</sup>

It is, moreover, surprising that Koslicki entirely ignores a central concept of physics in her book: the concept of *mass*. This is all the more surprising in view of her claim that the Hylomorphic Conception of Matter is »the most promising option for the purposes of developing an analysis of concrete particular objects that is compatible with our best scientific theories concerning the natural world« (33). Our best scientific theories of the natural world are the theories of physics, and *mass* is one of the most important concepts of physics. *Mass* is the quantity of matter, just as *spatial extension* is the quantity of space, and *duration* the quantity of time. One of the central laws of physics used to be the Law of the Preservation of Mass. Since the Einsteinian revolution this one-time preservation law and the one-time Law of the Preservation of Energy have been welded together into the Law of the Preservation of *Mass-Energy*. Some people, treating

2 This meaning is, recognizably, still alive today – not so much in philosophy as in chemistry and pharmacology.

3 In view of this, one might quip: This is *not* hylomorphism, this is *mereomorphism* (as applied to material particulars).

mass as a form of energy, prefer to continue speaking of the Law of the Preservation of Energy, thus giving this old designation a new interpretation. But since not only mass is transformed into energy, but also energy into mass, one might just as well continue to speak of the Law of the Preservation of Mass, and give this *other* old designation a new interpretation.

In any case, *the constancy of mass* throughout physical transformation processes that involve neither nuclear fission nor nuclear fusion strongly indicates *the constancy of matter* throughout all non-nuclear physical transformation processes. And this directly contradicts Koslicki's purely relative conception of matter. Consider an iron statue. You can saw it into pieces, you can pulverize it, or make it boil – the mass you are dealing with stays the same; and therefore – it stands to reason (though, admittedly, it does not follow logically) – also *the matter* you are dealing with stays the same. But the collection of iron pieces that result by sawing, the collection of iron particles that result by pulverization, and the collection of wildly agitated iron atoms that result by heating to the boiling point are *different* collections of material parts of the iron statue. Although each of these collections can be called »the matter of the iron statue« *relative* to a certain level of composition (or decomposition), none of these collections – nor any other complete collection of material parts of the iron statue – is *the matter* of the iron statue; that is, *the non-relative, absolute matter* of the iron statue, the quantity of which is precisely *the mass* of the iron statue.

What is *this matter* – the matter *in* and *of* the iron statue? What is the matter *in* and *of* every other material particular? We know some of its effects: it resists acceleration and penetration, but can be accelerated and penetrated; it absorbs and gives off energy; its various chunks – distributed in the various material particulars – mysteriously attract each other. It is the source – »the mother«: *mater materia* – of all material possibilities: They all are in the *potentia materiae*, in the potency of matter; they only need to be *born*, need to be *actualized*.

None of these familiar and highly interesting, Aristotelian and Newtonian aspects of *matter (materia)*, and therewith *a fortiori* of hylomorphism, can be found in Koslicki's book. Instead, we encounter the peculiar irony that the conception of matter which is closest to the true spirit of hylomorphism is envisaged by Koslicki only at the far horizon of remote possibility: there where her own (purely) relative conception of matter might possibly give out, might possibly no longer apply. To quote again what has already been quoted before: »[W]e might eventually reach a point in the compositional hierarchy at which matter-form compounds are composed of material parts which are not themselves structured wholes.« (59) Yes, those unstructured material parts – deep in the depth of the micro-world – would be truly *matter*, and matter we would, so to speak, *have our hands on*: our epistemic grasp of it would be as close as it can be for us. This,

however, would not mean that we had not been dealing with *matter* already all the time, with what is truly *matter in and of* the material particulars. We have been dealing – and are all the time dealing – with matter, with *hylē*, but – of course – always, always under a form, under a *morphē*.

The matter in and of a material particular can be, and normally is, also the matter in and of quite another material particular – earlier, later, or even at the same time; this is so because one and the same portion of matter can and does receive different substantial forms, one such form after the other, or even two such forms at the same time. Moreover, the matter in and of numerically the same material particular can be, and often is, different at different times; this is so because one and the same substantial form can and does successively assume different portions of matter.<sup>4</sup>

These are *the facts of hylomorphism*. Any philosophical interpretation of hylomorphism must respect them – or it is not an interpretation of hylomorphism. Does Koslicki's interpretation of hylomorphism respect *the facts of hylomorphism*?

Koslicki holds that forms – the forms needed for hylomorphism, I will also call them »substantial forms« – are individual forms (103), i. e., that they are particular or individual entities; hence it would be rational for her not to believe that any form needed for hylomorphism is a general form, is a universal or general entity. The logically exclusive difference between individual entities and general entities is described by her in the following way: »I understand the distinction between universal or general entities, on the one hand, and particular or individual entities, on the other hand, as follows: entities of the former type are in principle repeatable, i. e., they can be shared among multiple distinct entities by being wholly present in each of them at a single time; entities of the latter type, in contrast, by their very nature are not repeatable or sharable among multiple distinct entities by being wholly present in each of them at a single time.« (62) Now, consider a substantial form – for example, my own substantial form – which, as a matter of hylomorphic biological fact, was once wholly present in a portion of matter distinct from the portion of matter that it is now wholly present in. That this double, hence multiple instantiation of the same substantial form does not refer to a single time but to two different times is *all* that saves Koslicki from having to admit that some form need-

4 Do *portions of matter* already have a form *qua* portions of matter? It seems, if portions of matter had a form *qua* portions of matter, we would be back at Koslicki's »Matter as Hylomorphic Compounds« theory. However, a portion of matter does not already have a form *qua* portion of matter. *Qua* portion of matter, it has no structure. All it has *qua* portion of matter is a certain mass – and an infinitely determinable location in space, which means: the space it occupies can be determined ever more precisely *without* ever reaching the point at which the space it occupies is determined perfectly precisely. For more on this, see U. Meixner, *The Non-Physicalness of Material Objects: L. Honnefelder – E. Runggadier – B. Schick* (eds), *Unity and Time in Metaphysics* (Berlin 2009), 46–66.



ed for hylomorphism is not an individual entity after all, but a general one. If the generality of an entity is defined slightly more liberally, as »can be shared among multiple distinct entities by being wholly present in each of them *at some time or other*,« and the individuality of an entity is defined slightly more strictly, as »cannot be shared among multiple distinct entities by being wholly present in each of them *at some time or other*,« then my substantial form turns out to be a general form, and *not* an individual form, and the claim that every form needed for hylomorphism is an individual form is falsified – *or* one must ignore or deny one of the facts of hylomorphism. What am I aiming at here? What is the point of my criticism? My point is that Koslicki's position concerning the fundamental ontological character of *forms* – that they are individual entities, individual forms – does not seem to be theoretically robust, since a mere modification of the relevant definitions – a plausible modification – overturns that position (given one does not ignore or deny the facts of hylomorphism).

In fact, however, no modification of definitions – of Koslicki's definitions – is necessary for overturning Koslicki's position. Time and again there have been reports of the bilocation of persons, usually of *saints*: reports of their being at two separate places at the very same time. For refuting the proposition that forms are individual entities we need not believe that those reports are true, we only need to believe that, *in principle*, they can be true. If the bilocation of a human person – of *any* given human person<sup>5</sup> – is possible (and I think it is possible), then this means that one and the same person can be at two separate places at the same time, and, hylomorphically speaking, this means nothing else than that one and the same substantial form – namely, the substantial form of the bilocated human person – can inform two distinct portions of matter at a single time;<sup>6</sup>

5 Given any human person, God could certainly cause his/her bilocation, whether the human person is a saint or not.

6 This may seem perfectly impossible. But it is admitted on all sides (by hylomorphistically oriented philosophers) that the substantial form of a human person can *diachronically inform* two distinct portions of matter; in fact, this is often the case. Why should it be perfectly impossible – that is, not even in principle possible – that it *synchronously informs* two distinct portions of matter? The psychology of bilocation is certainly difficult, but for allowing the possibility of bilocation, it would be unfair to require that all questions relating to it must be uncontroversially answerable. One such question is this: How many material particulars are involved in the bilocation of a human person? My answer is: *Three* (one human person and two coordinated bodies of that same person, both bodies taken »in abstraction« from the person – who, indeed, *is* a material particular, but *not merely* a material particular). If God reconstituted the body of 10-year-old Lisette as it was on her tenth birthday and put it face to face with 65-year-old Lisette on her 65<sup>th</sup> birthday, how many material particulars would be involved in *this* case? Is *this* case, too, a case of bilocation? My answer is: *No*, it is not; for in the case in question there *either* would be four material particulars: a ten-year-old person *and* her body (the latter taken »in abstraction« from the person) *in one place*, and a 65-year-old person *and* her body (taken »in abstraction«) *in the other place*; hence: *no bilocation of a person*. Or there would be three material particulars: a mindless zombie-body (perfectly

or saying it in Koslicki's very words, it »can be shared among multiple distinct entities by being wholly present in each of them at a single time.« Using Koslicki's definition of generality, it follows that the substantial forms of human persons are general entities, that they are general forms, and not individual forms.

And there is another somewhat surprising conclusion waiting for us. Consider a portion of matter that receives two substantial forms at the same time, thus becoming the matter, at one and the same time, of two material particulars. (That this can and does happen is one of the facts of hylomorphism.) Here one can very well say the following: One and the same entity – i. e., the said portion of matter – is shared among two, hence *multiple* entities by being wholly present in each of them at a single time. All that prevents one from concluding that some portion of matter is a general entity is the worry that the matter-sharing entities, though different, are perhaps not *distinct*. But what is *distinctness*? Does the word »distinct« mean more than the word »different«? If not, then some portion of matter is a general entity; then, in fact, many portions of matter are general entities, since the simultaneous reception, by a portion of matter, of several substantial forms is a quite *common* hylomorphic fact. Consider the iron statue, the lump of iron, the cloud of iron atoms: one and the same portion of matter, but three different substantial forms, and, accordingly, three different material particulars that occupy one and the same region of space at one and the same time.

Is it a bad thing if portions of matter turn out to be general entities – as I think they do? If they turn out to be *universals*? This result, of course, contradicts tradition, which has it that *materia est principium individuationis*, and those materialists who are also nominalists will certainly not be amused by the claim that portions of matter are universals. One should keep in mind here that portions of matter, though they are universals, are nevertheless not forms, hence *a fortiori* not general forms. People, when they hear the word »universal« or »general entity« applied to something, often automatically think that this something is said to be a general *form*. This automatism is not justified: portions of matter are general entities, universals, but they are not general forms; they are not forms at all. Keeping this in mind should do a lot to reduce resistance against the insight that portions of matter are general entities.

Contrary to what Kathrin Koslicki believes, the substantial forms of human persons are general entities, and, of course, general forms. Now, in order to make this result more palatable, one should keep in mind that the substantial forms of human persons are general entities *not already with*

imitating a ten-year-old person in the physical respect) *in one place*, and a 65-year-old person and her body (taken »in abstraction« from the person) *in the other place*; hence again: *no bilocation of a person*.

*respect to material particulars*; they turn out to be general entities only if the field of application for such forms is widened – as it certainly must be under hylomorphism – to include *portions of matter*. It is true, as we have seen, that my substantial form, in Koslicki's words, »can be shared among multiple distinct entities by being wholly present in each of them at a single time.« But it is, of course, not true that my substantial form can be shared among multiple distinct *material particulars* by being wholly present in each of them at a single time; my substantial form is *my* substantial form, it can never ever be the substantial form of any other material particular; it is my personal essence. It is only true – *as we have seen* – that my substantial form *can* be shared among multiple distinct *portions of matter* by being wholly present in each of them at a single time.

Hylomorphism is the doctrine that material individuality has two roots, matter and form. Hylomorphism is intended to give an ontological explanation of material individuality: Roughly, a material individual results if a certain form and a certain matter come together, are united. On pain of infinite regress, the account of matter and form which must undergird the hylomorphic account of material individuality must not already involve an essential reference to material individuality. This can be achieved *if* portions of matter and substantial forms – the forms needed for hylomorphism – are general entities, not individual entities; if only their *unifications* – the *hylomorphes*, if you like – are individual entities, namely, material individuals, material particulars.

Kathrin Koslicki has some close encounters with infinite regresses in her interpretation of hylomorphism. Infinite regress threatens in her merely relative account of matter, even though, admittedly, there is some hand-waving on her part in the direction of an absolute account of matter. And infinite regress threatens again in her individualistic account of forms. She believes, as we have seen, that the forms needed for hylomorphism are individual forms; she also believes »that the form of a hylomorphic compound might serve as its principle of cross-world identity.« (99) She adds: »If forms are to supply necessary and sufficient conditions for the cross-world identity of concrete particular objects, then facts about the numerical identity of forms must either be taken as primitive or they must themselves be explained by reference to some further cross-world identity principle.« (99) Quite right. However, it is evident that the second strategy harbours the danger of infinite regress. Koslicki, fortunately, »opt[s] for the first strategy which takes facts about the numerical identity of forms as primitive.« (99) But if facts about the numerical identity of forms are taken as primitive, why not also take facts about the numerical identity – in particular, the cross-world identity – of concrete particular objects as primitive? The question is all the more urgent because forms, if taken to be individual entities, do not seem to be individual entities in any better way



than »concrete particular objects« (i. e. – I take it – *substantial* particulars and, specifically, *material* particulars). Where is the explanatory or justificatory advantage of the numerical identity of the *former* individuals (the forms) over the numerical identity of the *latter* individuals (the concrete particular objects)? Is, for example, my substantial form needed – and is it needed as an *individual* entity – in order to justify *that* – or explain *why* – in the two true sentences »In the actual world, Uwe Meixner never studied geography« and »In some possible world, Uwe Meixner once studied geography« the singular term »Uwe Meixner« refers to the very same concrete particular object, namely to *me*? It seems to me that my substantial form – whether taken to be an *individual* entity or a *general* one – is not required for the relevant justification or explanation. What is true is this: My substantial form – which is, in fact, a *general* entity – is my essence; it is instantiated by countless portions of matter (in some possible worlds even by several portions of matter *at the same time*); but as far as the material particulars are concerned, it is instantiated only by me and can be instantiated only by me. This makes me and my substantial form, and therefore my numerical identity and the numerical identity of my substantial form, *isomorphic*, so to speak. None of the two is more basic than the other, neither in the justificatory nor in the explanatory respect.

But, then, what is my substantial form, as distinguished from myself, ontologically good for? In general, what are substantial forms, as distinguished from the material particulars which have them, ontologically good for? What is their utility in the theoretical respect? I am tempted to answer that not everything that exists must be good for something, just as little as that everything that is good for something must exist. But no, my real answer is this: The substantial form of a material particular serves to explain the constancy of certain properties of that particular (usually they are called »its essential properties«): their constancy over the entire time of the particular's existence in every world in which it exists. And the substantial form of a material particular also serves to explain the very existence of that particular – to explain its existence not causally, but structurally, and certainly only in cooperation with matter, matter which in many cases – though not in all – steadily comes and goes, while the substantial form stays.<sup>7</sup>

7 Concerning my views on hylomorphism, more can be found in *U. Meixner, Materiality and Immateriality: D. Novotny – L. Novak* (eds.), *Neo-Aristotelian Perspectives in Metaphysics* (New York and London 2014), 201–220; and in *U. Meixner, Remarks on the Matter of Materiality: R. Hiintelmann – J. Hattler* (eds.), *New Scholasticism Meets Analytic Philosophy* (Heusenstamm 2014), 3–17.

## Summary

This article criticizes in detail Kathrin Koslicki's conceptions of matter and form in her book *Form, Matter, Substance*. It has the character of a pinpointed book review: it does not aim to do justice to the book in its entirety, it only examines some aspects of it – aspects, however, which are central to it. The verdict that emerges from the article might be summed up as follows: Koslicki's book misses to a considerable extent the point of hylomorphism.