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Emergent Dualism: Why and How?

## Introduction

The main aim of this essay is to try to clarify a central question concerning the coherence of emergent dualism. The question is approximately this: How should we articulate and defend emergent dualism, if emergence is mostly interpreted as a kind of supervenience, and supervenience is rejected by the supporters of dualism together with the dependence of the mental on the physical? What should an adequate conception of emergence look like? This essay will be part of an attempt to provide an answer to this question.

## Emergent Dualism: Why?

Emergence tends to be understood as a relation similar to supevenience, because emergentism is often conceived of as a kind of nonreductive physicalism.[[1]](#footnote-1) The question I first pose is whether this interpretation has any historical grounding. If we look at the writings of the British Emergentists, the answer appears to be in the affirmative. Emergentists, in fact, intended to differentiate themselves from mechanicists, not because these were materialists, but because they championed a reductive variant of materialism. In his 1925 book, Broad, while naming his perspective “Emergent Materialism”, introduces a distinction between differentiating attributes, like materiality, and non-differentiating attributes, like mentality. The former are special attributes that, besides those that every substance displays (such as duration and capability of standing in causal relations), specify the substance to be a certain kind of substance, for example the material substance. The non-differentiating attributes refer instead to properties of the substances that somehow depend on the differentiating attributes, and these can be emergent or reducible. By deploying Broad’s distinctions, we can say that both mechanicism and emergentism maintain that materiality is a differentiating attribute and that mentality is a non-differentiating one, but, while the former considers mentality as a reducible property, emergentists deem it an emergent property. While for the reductive materialist

“being a mind” is nothing but being a body “making certain overt movements or undergoing certain internal physical changes, (the emergent materialists) may wish to maintain only that there is one event which has the two characteristics of being an awareness of a red patch and of being a molecular movement of a certain kind”.[[2]](#footnote-2)

Is there any place for a property dualism here? Not at all. If we have any doubt, let us read Broad’s words. The mental properties of the material events are “completely determined by the material properties which these events also have”.[[3]](#footnote-3) Dualism, be it substance or property dualism, is not only ignored, but even explicitly rejected by the Emergentists. Following Broad’s classification, the main mistake committed by dualism is to consider both mentality and materiality as differentiating attributes. That is to say, to view mentality as a basic, fundamental feature of reality. The argument against the fundamentality of the mental reads that only living beings possess mentality, and that the complexity of the mental faculties depends on the complexity of the organisms, hence empirical evidence would confirm that mentality is a non-differentiating attribute.[[4]](#footnote-4) We could name this argument the “argument from embodiment” against dualism. It is not necessarily correct, but it clearly shows that on the Emergentists’ picture mentality is deeply rooted in materiality.

That said, there is more to Emergentism than that which we have examined so far. Even if we were willing to conceive of Emergentism as a kind of nonreductive physicalism, it would still remain to clarify what the specific features of the emergent processes are; that is, what characterises Emergentism as *that* particular perspective within the philosophy of mind. A term that serves as an umbrella term for all others is *novelty*. In fact, a trait common to all Emergentists is the great emphasis they place on the novelty represented by the emergent levels. Within *emergent evolution*

stress is laid on this incoming of the new. Salient examples are afforded in the advent of life, in the advent of mind, and in the advent of reflective thought. But in the physical world emergence is no less exemplified in the advent of each new kind of atom, and of each new kind of molecule. It is beyond the wit of man to number the instances of emergence. But if nothing new emerges — if there is only regrouping of pre-existing events *and nothing more* — then there is no emergent evolution.[[5]](#footnote-5)

On the emergentists’ understanding, novelty encompasses several attributes of emergent processes, like, for example, *non-additivity*. J.S. Mill[[6]](#footnote-6) already distinguished between homopathic and heteropathic modalities of conjoint causal action. On the first modality, jointly operating causes deliver the same effects they had delivered if isolated from each other. On the basis of the second modality, instead, the joint action of more causes does not correspond to the sum of the effects the causes had had if taken in isolation. The chemical combination of two substances – Mill writes – produces a third substance with properties different from those of either of the two separately, or of both of them together. In other words, emergent properties are properties of complex systems that are not amenable to the properties of their single components.

Another property of emergent processes besides non-additivity is *non-deducibility*. This property is mentioned in this passage of Broad:

Put in abstract terms the emergent theory asserts that there are certain wholes, composed (say) of constituents A, B, and C in a relation R to each other; that all wholes composed of constituents of the same kind as A, B, and C in relations of the same kind as R have certain characteristic properties; that A, B, and C are capable of occurring in other kinds of complex where the relation is not of the same kind as R; and that the characteristic properties of the whole R(A,B,C) *cannot,* even in theory, *be* *deduced* from the most complete knowledge of the properties of A, B, and C in isolation or in other wholes which are not of the form R(A,B,C) (my italics).[[7]](#footnote-7)

What does it mean that the characteristic properties of a whole cannot be deduced from its components? By saying that a property of an emergent system is non-deducible, we mean that the belonging of that property to the emergent system cannot be logically deduced from the laws governing the lower-level components. Thus, the theory which describes the properties at the lower level is *incomplete* as to the properties occurring at the higher level.

A further feature tied to novelty is then *downward causation*. On the emergentist reading the emergent levels possess causal powers that they exert towards the lower levels. As far as this kind of causation is concerned, Morgan affirms that, when a new kind of correlation appears (for example at the level of life),

the way in which physical events which are involved run their course is different in virtue of its presence — different from what it would have been if life had been absent […] I shall say that this new manner in which lower events happen — this touch of novelty in evolutionary advance — *depends on* the new kind of relatedness which is expressed in that which Mr. Alexander speaks of as an emergent quality.[[8]](#footnote-8)

To sum up, on the Emergentists’ view emergent properties are *novel,* that is to say they are more than the sum of their components, they are not logically deducible from the laws of the lower levels, and they are endowed with causal powers that they exert in a downward fashion. My question is now: Is novelty so understood compatible with a physicalistic framework, like that provided by Emergentism? Can we combine this claim by Morgan: “what emerges at any given level affords an instance […] of *new kind of relatedness* of which there are no instances at lower levels”[[9]](#footnote-9) with Broad’s claim that the mental properties of the material events are “*completely determined* by the material properties which these events also have”[[10]](#footnote-10)?

My strong suspicion is that, if the latter claim is true, then there is no room for novelty in the world and neither for an ontological understanding of emergence. Let me exemplify my suspicion by recourse to the contemporary debate on downward causation, in which the very concept of “downward causation” has undergone sharp criticism. Searle, for example, maintains that the notion of downward causation is contradictory, because it conflicts even with the weakest notion of transitivity of causation. Searle’s argument is more or less the following. On the Emergentists’ view, consciousness emerges from the activity of neurons, but, once emerged, it has an autonomous life and exerts its own causal powers. The contradiction lies at this point, because, if neurons cause consciousness, they cause any causal power consciousness exerts, as well. Hence, there cannot be anything like downward causation.[[11]](#footnote-11)

Kim, instead, targets a coherent version of downward causation but, unfortunately, this circumstance does not improve its prospects. As Kim’s argument shows, the causal activity of the emergent mental property M (at level n) in producing the physical property P\_ (at level n-1) via downward causation is redundant, as P\_ can be simply caused by M\_ (at level n-1), the subvenient physical basis of M.[[12]](#footnote-12) What Kim’s argument very nicely shows is that downward causation does not make any sense within the conceptual frame of physicalism. It can still have a place in science and philosophy, provided we are ready to give it up as an ontological category and to consider it as a way of describing a purely physical world.[[13]](#footnote-13)

The example of downward causation shows us that you cannot have your cake and eat it too. Novelty and physicalism are reciprocally incompatible, therefore one has to make a choice between these two alternatives: either find a safe haven in physicalism or venture into the open sea of a new ontology to find a place for novelty. I have chosen the latter alternative, and this is why I am an emergent dualist.

## Emergent Dualism: How?

### Emergence and supervenience

The first part of section two is devoted to the exposition of the structural differences between the relation of supervenience and that of emergence.

As a reminder, here is a scheme of the relations among the different kinds of supervenience. The arrow ⇒ represents the relation of implication.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Analitically possible worlds** |  | **Nomologically possible worlds** |  | **Actual world** |
| Strong analytic supervenience (in all the analytically possible worlds) (it coincides with definability) | ⇒ | Strong nomological supervenience (in all the nomologically possible worlds) (it coincides with reducibility) | ⇒ | Weak supervenience (only in the actual world) |
| ⇓ |  | ⇓ |  |  |
| Strong local analytic supervenience (it regards single objects) | ⇒ | Strong local nomological supervenience |  |  |
| ⇓ |  | ⇓ |  |  |
| Strong global analytic supervenience (it regards the totality of the objects) | ⇒ | Strong global nomological supervenience |  |  |

Some remarks on the supervenience relations:

Every kind of mind-body dualism denies the strong global analytic supervenience. There are in fact analytically possible worlds in which individuals can differ as regards their mental states but not their physical states. A typical example of this are zombies. One can hypothesise zombie-worlds in which, besides normal individuals, there are zombies, that is to say individuals who are physically identical to normal individuals, but void of mental life. But to deny the strong global analytic supervenience means to deny the local analytic supervenience and the strong analytic supervenience. Thus every kind of mind-body dualism denies the strong analytic supervenience.

Now to the emergence of a mental property M on a physical property P: What are the fundamental conditions of the emergence of a property M on a property P? These conditions are two and read in the following way.

1. Minimal negative condition: between M and P it must not hold a relation of strong analytic supervenience. In his 2009 book, in fact, von Kutschera observes that:

Eine Emergenz der Eigenschaften einer Menge *B* bzgl der Eigenschaften der Menge *A* besteht […] nur dann, wenn *B* nicht analytisch stark supervenient ist bzgl *A*. Sonst wären ja die Eigenschaften aus B identisch mit solchen aus A, also nicht neu.[[14]](#footnote-14)

In his 1990 essay, Van Cleve defines the notion of an emergent property in a similar vein:

If P is a property of w, then P is emergent if and only if P supervenes with nomological necessity, but not with logical necessity, on the properties of the parts of w.[[15]](#footnote-15)

The difference between Kutschera and Van Cleve is that for the latter the minimal negative condition of emergence is the whole of emergence, whereas Kutschera comments on that:

Das bringt uns in der Frage der Entstehung des Psychischen aber nicht weiter. Emergenz ist ja nur negativ bestimmt als Unmöglichkeit einer Definition der neuen Eigenschaften durch die alten oder als Unmöglichkeit ihrer Reduktion auf die alten.[[16]](#footnote-16)

A further remark on the minimal negative condition is that this is common both to emergence and to dualism (see the previous example about the zombies), so that dualism and emergence have a common root.[[17]](#footnote-17) This shows that Kutschera is right, and that the negative minimal condition is not all there is to emergence.

2. Novelty of M with regard to P

Secondly, novelty cannot be captured by any notion of supervenience. The analysis should rather be done in terms of *deducibility* of the emergent property from a theory.[[18]](#footnote-18) This hints at the difference between a purely *descriptive* notion of emergence, which coincides with the non-definability of the new properties through the old ones, and an *explanatory* notion of emergence:

Soll das Neue aus dem Alten hervorgehen und nicht unabhängig davon entstehen, muss es gesetzmässige Zusammenhänge zwischen dem Neuen und dem Alten geben. Sind sie so schwach, dass es nicht möglich ist, alles Neues mit Altem zu erklären, so spricht man von einer explanatorischen Emergenz.[[19]](#footnote-19)

An example of explanatory emergence is this (where I use the symbol E for a generic emergent property):

|  |  |  |
| --- | --- | --- |
| Subvenient microstructure |  | Emergent Property |
| (c1 … cn; R)(x) | ⇒ | E(x) |
| The laws for c1 …cn *withou*t R |  | ∀x(c1 … cn; R)(x) ⇒ E(x)) |

This analysis obviously poses the question of how it is possible to explain the emergence of property E. If a property is emergent, it cannot be explained (deduced) from the laws ruling the subvenient basis. However, this does not mean that that property is non explicable at all. It is explicable if it is possible to bridge the deductive gap. How is this possible? Besides the laws for c1 … cn further laws must exist, which establish that c1 … cn in the relation R generate E. What do these laws look like? They are *bridge-laws*, that is, laws that are able to guarantee the deduction of the emergent property from the subvenient properties. Let us examine of what kind these laws are.

a. They are *compositional* laws, as for example the parallelogram law of the composition of forces or the laws of composition of atomic particles for the formation of atomic crystals. These laws are laws for c1 … cn in the *configuration* R. In Broad’s words, they are trans-ordinal laws. R is the relation that organises the composition. This is an analytic, geometric, and in fact logico-mathematical relation. Moreover, either the bridge-law itself is primitive, or it can be derived from other mathematical or physical laws. What is essential, otherwise we have the denial of emergence, is that among the laws from which it is inferred there is at least a new law with respect to those that hold for the subvenient basis.

b. They are *fundamental compositional* laws. Let us consider the fundamental bridge-laws between physical properties P and biological properties B. It should guarantee the derivability of B(x), along with the laws that rule the subvenient basis (c1 … cn; R). One should therefore have:

Physical Laws + Biological Laws |– ∀x((c1 … cn; R)(x) ⇒ B(x))

Physical Laws + Biological Laws are the sufficient explanatory condition of the emergence of B on physical properties but, given this explanation, the biological laws are its necessary condition.

On some philosophers’ view, and on Broad’s view in particular, a relation of emergence exists among the different scientific fields: chemistry with regard to physics, biology with regard to chemistry, psychology with regard to biology, etc. This view is criticised by those who maintain that none of the compositional laws is fundamental. On Mc Laughlin’s understanding this also holds for mental properties that are susceptible of functional analysis, while the question remains open for mental properties conceived of in a more strict sense as phenomenal properties.[[20]](#footnote-20) One should in fact have (being the emergent property a mental property M):

Biological Laws |– ∀x((c1 … cn; R)(x) ⇒ M(x)), hence Biological Laws ||– (c1 … cn; R)(x) ⇒ M(x))

However, as Chalmers’ argument has shown, on a phenomenal reading of mental properties emergence is present at least at the life-mind level. In fact, according to Chalmers, a possible world exists in which biological laws are true and (c1 … cn; R)(x) is true, but not M(x). Thus, if there is an explanation, this must derive from biological laws plus bio-mental bridge-laws. Thus bridge-laws are fundamental and the mental dimension is primitive. In other words, mental laws cannot have a purely biological basis. Otherwise they would be nomologically supervenient on biological laws, hence reducible to them.

### How to conceive the basis of the emergent mental properties

1. The basis of the emergent properties is ontologically original

That the basis of the emergent properties is ontologically original means that without it no mental events would be possible. Moreover, as it is a necessary condition within a sufficient global condition of the mental event, it can be understood as a cause, or a con-cause, of the mental event itself. This is essential to justify the genuinely emergent phenomenon of downward causation and thus to rebut Kim’s causal exclusion principle.[[21]](#footnote-21) As already mentioned above, in fact, this principle traces back the causal powers of the emergent properties to the causal powers of the corresponding subvenient physical basis. But, since the basis of the emergent mental properties contains a mental component, the emergent mental properties are not causally determined by the physical dimension alone. Furthermore, the thesis of the ontological originality of the emergent properties is valid against other and more liberal proposals as well, like Humphreys’ conception of *fusion*.[[22]](#footnote-22) This grounds the causal powers of emergent properties in the fact that they arise from the fusion of properties inherent to the subvenient basis and not from their structural composition alone. But fusion is an obscure concept. Moreover, fusion should take place on the basis of some bridge-laws, which presupposes, in the case of mental events, the originality of the mental events themselves.[[23]](#footnote-23)

Another important point is that the originality of the basis undermines the thesis that hylomorphism is a valid interpretation of the mind-body-nexus. Actually, hylomorphism faces a dilemma: Either the form is conceived of as an (even highly complex) structure which characterises the organisation of living bodies, hence of human bodies as well; or it is understood as a component of the organism which goes beyond the mere structure of the organism.

In the first case, the form is not ontologically original with respect to the material basis, since it is a modality of composition of the organism’s single parts. Thus, the form cannot be conceived of as the reason of the emergent properties’ novelty. In the second case, the form goes beyond the mere structure of the organism, and can actually be the basis of new, emergent powers. But how is this possible, if the form does not express an ontologically original principle with respect to its physical basis; that is, if it is not itself emergent? The conclusion is that the concept of emergence cannot be explained through the concept of form, because the form is an emergent dimension itself.

2. The originality of the basis is founded in its ontological independence

The originality of the basis of the emergent mental properties implies that this basis is ontologically independent from the body. In fact, it is sufficient for guaranteeing for the human organism the capacity of becoming and being a *self*, a reality that is different from the body and is endowed with the powers of agency. The self cannot simply be a fundamental property of a substance that has biological properties. If this were the case, one would then need to say that my body, as far as it is endowed with psychical capacities, is the cause of this or that action, and thus bears the responsibility for it. But things are not this way. I am myself, through my body, the cause of this or that action. The predicative centre of gravity has to be shifted, so to speak: It is the self which is the subject of attribution of agential causality, hence of responsibility. The property of being an agent, therefore, cannot be attributed to the body, but only to something that ontologically transcends the body and is independent from it. This “something” is a substantial component of the human nature besides the biological one.

Having said that, an important task lies before me: to clarify the relationship between the mental and the bodily substance. If we think of the history of philosophy, we see that substance dualism seems to be condemned to imply the reciprocal extrinsicality of the two substances. While the mental substance is immaterial, non-temporal and non-spatial, the bodily substance is material and spatio-temporal. One can hardly imagine two realities that are more different than the mental and the bodily substance. It is not by chance that Daniel Dennett maintains that contemporary substance dualism has made little progress with respect to Descartes’ claim that the pineal gland is the point of interaction between mind and body.[[24]](#footnote-24)

The view that I try here to defend takes the opposite approach; that is, it begins with the *intimacy* of the relationship between mind and body. Descartes himself, *pace* Dennett, underlines this aspect in a famous passage of his *Meditations on First Philosophy*: “nature […] teaches me that I am not merely present to my body just as a sailor is present in a ship, but rather that I am very closely joined to, and — as it were — thoroughly mixed with, it — so much so that I were to compose one thing with it”.[[25]](#footnote-25) On the other hand, the circumstance that both the mental and the physical belong to the basis of the emergent mental properties is evidence for the close bond between mind and body. The possibility for the organism to develop in a self is not something extrinsic to the organism but is rooted in this and in its potential capacities. Thus, this possibility is a *power*, which is characterised by two properties that Molnar[[26]](#footnote-26) attributes to powers: *directedness* and *intrinsicality*. As to the first feature, the organism’s development is oriented from the very beginning towards the generation of a self through the manifestation, in the course of the organism’s natural evolution, of gradually more complex mental properties and powers. As to the second feature, intrinsicality, it is crucial that the realisation of the original power (to make emerge a self) does not take place in virtue of extrinsic or external relationships, but of properties that are intrinsic to the organism itself. From the intrinsicality of the powers inherent to the organism, moreover, it follows the pivotal idea of the *mind-body co-evolution*, on whose basis the realisation of non-biological potentialities is induced by the development of the biological structure. Furthermore, the process of *actualisation* of the self also implies its *particularisation,* its being the mind of a specific human being. So, actualisation of the mind is induced by biological processes of high complexity, but increasing complexity of the bodily substance is also a sign of increasing individualisation of the mental substance.[[27]](#footnote-27)

It is worth noting that the substance dualist view I here defend supports a standpoint about the subject that is opposite to panpsychism, that is, to another possible ontological foundation of the originality of the mental basis. While substance dualism supports the principle of the progressive individualisation of the subject, panpsychism champions the thesis of the ubiquitous presence of the experiential in all real entities, from the micro-particles to the human soul. But is known that panpsychism is fraught with insuperable difficulties, first of all the so called combination problem, that amounts to the impossibility that a plurality of micro-subjects of experience constitutes one macro-subject of experience. Moreover, panpsychists maintain that the foundations of ontological originality lies in a unique neutral reality characterised by the two fundamental aspects of materiality and mentality. But the kind of neutral monism at the basis of panpsychism seems as much fraught with insuperable difficulties as the combination problem is. On the one hand, in fact, it is not easy to understand what the neutral basis actually is, and, on the other, it is quite incomprehensible why the dual psycho-physical reality should emerge from this basis. It does not seem that the derivation of dual reality from the neutral basis can be of an epistemic kind. Indeed, it could not be the result of the fact that neutral psycho-physical reality would be likely to appear according to the psychical and physical aspects. In order to appear, in fact, it should appear to a subject and a subject could not exist before the emergence of a subjective perspective. It does not make any sense to speak of the appearing of two different dimensions if this is not an appearing to a subject. The derivation could therefore be of an ontological nature. This means that neutral reality should be its cause. But how is it possible that the undifferentiated neutral basis could be the cause of the differentiated dual aspects? It should be a formal cause that, given the neutral nature of the basis, could not originate from it. Panpsychism based on neutral monism does not seem therefore a valid alternative to substance dualism as foundations of the subvenient basis.

A final point about the independence of the mind from the body. The *ontological* independence of the mind is not incompatible with its *functional* dependence from the body. I borrow this view from Thomas Aquinas, who in the *Summa Theologica*,[[28]](#footnote-28) underlines an aspect that accords very well with the current success of neuroscience. We couldn’t explain (he notices) why our thinking is impaired by a cerebral lesion if we didn’t admit that abstract knowledge needs sensory knowledge, which, on its turn, needs the bodily powers. In other words, although the mind is ontologically independent from the body, and abstract thinking is not reducible to sensory knowledge, the mind needs the body in order to perform its own functions, from the more concrete such as sensing and perceiving, to the more abstract such as thinking, reasoning, and deliberating. Moreover, the functional dependence of the mind from the body accounts for the existence of correlations of all mental states with brain states. Thus the framework of a dualistic understanding of neuroscience provides the theoretical background for interpreting the empirical data regarding the mind-body correlations.

### Emergent dualism as naturalistic dualism

In my concluding remarks I intend to say something about emergent dualism as a kind of naturalistic dualism. The latter expression reminds us of Chalmers’ more famous kind of naturalistic dualism. Emergent dualism shares with Chalmers’ dualism the idea that the mental is a fundamental feature of reality. The mental is given in nature, as the physical is given in nature, as well. In this sense, emergent dualism parts way with every form of theistic dualism that attributes the presence of the mental in the physical world to some supernatural intervention.

However, there are two points with regard to which emergent dualism is different from Chalmers’ naturalistic dualism. First, emergent naturalism is a kind of substance dualism and not of property dualism. In his 1996 book Chalmers affirmed that “the issue of what it would take to constitute a dualism of substances seems quite unclear to me”.[[29]](#footnote-29) Now he appears to have clarified his ideas, since he seems to have transferred his interest from property dualism to substance dualism (and to panpsychism).[[30]](#footnote-30) Anyway, whatever kind Chalmers’ dualism may be, I have tried to show why on my understanding substance dualism is more plausible than property dualism.

Secondly, the kind of naturalistic dualism championed by Chalmers regards in particular some characteristics of the mental properties, as their phenomenal aspect. In his 1996 book Chalmers distinguishes between phenomenal properties, which are the targets of his arguments of non-reducibility, and psychological properties. These are ruled by the principles of the cognitive sciences, by functionalism in particular. Since the psychological properties are expressible in a third-person language, the hard problem of the philosophy of mind is represented by the phenomenal dimension: Why has consciousness arisen from materiality?[[31]](#footnote-31)

Chalmers certainly has the credit, along with other colleagues such as Nagel[[32]](#footnote-32) and Jackson[[33]](#footnote-33), for identifying the point that makes the reduction of subjectivity very hard, if not impossible. In my eyes, however, the identification of subjectivity with phenomenality presupposes too a weak concept of subjectivity. Besides its role in the phenomenal properties of the mind, subjectivity has no place in Chalmers’ conception, since he conceives of the psychological mind as a mechanical mind. Yet, the domain of subjectivity should be understood in a much richer and wider manner. In fact, if considered outside a non-reductive background, are the qualia of experience as relevant as deemed by Chalmers? They show commonalities with the secondary qualities of modern philosophy; that is, with properties which appear to belong to a physical object only if the subject observes or senses them. If put within the framework of Galileian thought, in which objectivity coincides with independence from the subject, secondary qualities are ultimately illusory. In the famous example made by Galileo in *Il Saggiatore*, the hand touches in the same movement a human being and a statue that stands near him. In the case of the human being, the touching – at the feet plant, above the knees, at the armpits – activates person X’s disposition to try tickling, whereas nothing similar happens to the statue. This shows, Galileo concludes, that the tickling is not in the hand as its cause, but only in us, and, once the “animal is removed, all the qualities are annihilated” (my translation).[[34]](#footnote-34) But, even admitting this, what matters here is that – whatever the ontological status of secondary qualities may be – these have the characteristics to *appear* to a *subject* who, as such, belongs to a dimension of reality which is completely other than materiality. Furthermore, if we place qualia into their appropriate non-reductive framework, we see that the phenomenal character of experience implies other important aspects, like the *intentional identity* of the subject with the object of her experience. Certain characteristics of intentionality, like *aboutness*, can still find a place in a physicalist paradigm, but not intentionality understood as the appearance of an object to a subject of experience. This concept of intentionality fits together with the irreducibly subjective nature of phenomenality. For reasons of space I have to stop this conceptual analysis here, but this could be extended to other notions, for example to *agentivity*, if we pass from the theoretical to the practical domain. As a conclusion, subjectivity is not simply a synonym of phenomenality; rather, it refers to an entire constellation of notions and aspects, whose thorough examination is a fundamental task for a naturalistic dualist.

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1. On this see J. Kim, The Nonreductivists’s Troubles with Mental Causation. [↑](#footnote-ref-1)
2. C.D. Broad, *The Mind and its Place in Nature*, 612. [↑](#footnote-ref-2)
3. C.D. Broad, *The Mind and its Place in Nature*, 623. [↑](#footnote-ref-3)
4. C.D. Broad, *The Mind and its Place in Nature*, 646. [↑](#footnote-ref-4)
5. C. Lloyd Morgan, *Emergent Evolution*, 1–2. [↑](#footnote-ref-5)
6. J.S. Mill, *A System of Logic*, 370 ff. [↑](#footnote-ref-6)
7. C.D. Broad, *The Mind and its Place in Nature*, 61. [↑](#footnote-ref-7)
8. C. Lloyd Morgan, *Emergent Evolution*, 16. [↑](#footnote-ref-8)
9. C. Lloyd Morgan, *Emergent Evolution*, 15-16. [↑](#footnote-ref-9)
10. C.D. Broad, *The Mind and its Place in Nature*, 623. [↑](#footnote-ref-10)
11. J.R. Searle, *The Rediscovery of the Mind*, 111-112. [↑](#footnote-ref-11)
12. For the full development of the argument see A. Corradini, Emergent Dualism, 195. [↑](#footnote-ref-12)
13. J. Kim, The Nonreductivists’s Troubles with Mental Causation; J. Kim, Making Sense of Emergence. [↑](#footnote-ref-13)
14. F. von Kutschera, *Philosophie des Geistes*, 230. [↑](#footnote-ref-14)
15. J. Van Cleve, Mind-Dust or Magic? Panpsychism Versus Emergence, 222. [↑](#footnote-ref-15)
16. F. von Kutschera, *Philosophie des Geistes*, 230. [↑](#footnote-ref-16)
17. U. Meixner, Teoria della sopravvenienza, 10876. [↑](#footnote-ref-17)
18. On this see A. Beckermann, *Analytische* *Einführung in die Philosophie des Geistes*, 223–224. [↑](#footnote-ref-18)
19. F. von Kutschera, *Philosophie des Geistes*, 230. [↑](#footnote-ref-19)
20. B.P. Mc Laughlin, Emergence and Supervenience, 16–17. [↑](#footnote-ref-20)
21. J. Kim, The Nonreductivists’s Troubles with Mental Causation; J. Kim, Making Sense of Emergence. [↑](#footnote-ref-21)
22. P. Humphreys, How Properties Emerge. [↑](#footnote-ref-22)
23. For a more detailed treatment of fusion see A. Corradini, Emergent Dualism, 200–201. [↑](#footnote-ref-23)
24. D. Dennett, *Consciousness Explained*, 33 ff. [↑](#footnote-ref-24)
25. R. Descartes, *Meditations on First Philosophy*, 201. [↑](#footnote-ref-25)
26. G. Molnar, *Powers: A Study in Metaphysics*, 60–81. [↑](#footnote-ref-26)
27. A. Corradini, Emergent Dualism, 205–206. [↑](#footnote-ref-27)
28. Thomas Aquinas, *The Summa Theologica* I, q. 84, a. 7. [↑](#footnote-ref-28)
29. D. Chalmers, *The Conscious Mind*, 125. [↑](#footnote-ref-29)
30. D. Chalmers, Panpsychism and Panprotopsychism. [↑](#footnote-ref-30)
31. D. Chalmers, *The Conscious Mind*, Ch. 1. [↑](#footnote-ref-31)
32. T. Nagel, *Mortal Questions*. [↑](#footnote-ref-32)
33. F. Jackson, Epiphenomenal Qualia. [↑](#footnote-ref-33)
34. G. Galilei, *Il Saggiatore*, 347–348. [↑](#footnote-ref-34)