

CONSCIOUS AND UNCONSCIOUS MENTALITY

Examining their Nature, Similarities
and Differences

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First published 2024

ISBN: 978-1-032-52979-0 (hbk)

ISBN: 978-1-032-52974-5 (pbk)

ISBN: 978-1-003-40952-6 (ebk)

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DOI: 10.4324/9781003409526-3

This Chapter was funded by University of West Bohemia



Routledge
Taylor & Francis Group
LONDON AND NEW YORK

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Michal Polák

2.1 Introduction

With the return of interest in consciousness research in the 1990s, a debate has ensued about the nature of phenomenal episodes, phenomenal content and phenomenal primitives of such conscious experiences. At the same time, discussion has revived on how to recognize such episodes, what conceptual apparatus to use in describing them, and how to correlate those qualitative episodes with neural and behavioural data. After more than ninety years of the first systematic attempt to define phenomenal qualities (for canonical definition of qualia, see Lewis 1929, 121), only the assertion that phenomenal qualities are *consciously* experienced perceptual states remains unaffected. An overwhelming majority of current thought stems from the view that phenomenality is *just* and *only* a conscious part of our mental life. I refer to this idea as a unitary view (framework/model) and contrast it to a dual view (framework/model). A dual view admits phenomenality to be not only conscious but also unconscious. In the chapter, I will try to show the differences between the two models on the basis of an analysis of three concepts that are explanatorily constitutive of the two approaches. At the same time, I will emphasize advantages of a dual view over a unitary one.

In contemporary consciousness studies two theoretical approaches to phenomenality can be encountered. The first holds that phenomenality is a property (or a set of properties) individuating conscious experience. With regard to perception, if a perceptual feature is phenomenal, it has to be conscious. This can be seen as a traditional view on phenomenality but also as contemporary orthodoxy. Perceptual phenomenality (phenomenal character, qualities) and consciousness are features which indivisibly constitute one's united experience.

A number of textual examples supporting this view can be found (Tye 2021; Chalmers 2018; Kripke 2001; Levine 2001; Prinz 2012; Revonsuo 2010; Koch 2004; ffytche 2000; Block 1995). This indivisibility, if not outright identity, can thus be considered the central dogma of contemporary orthodoxy in consciousness research. For most, the only non-controversial feature of *qualities* is that they are conscious. An implicit but inescapable part of this view is that there is no room for unconscious phenomenality (qualities). Drayson (2015, 276) puts it clearly: “Non-conscious states ... aren’t accompanied by any sort of feeling, sensation, or experiential quality.”

An alternative approach conceives of consciousness and phenomenality as something that can be conceptually and factually detached. This separation does not imply that all phenomenality must inevitably be also unconscious, but it is one of the variants. I will address the variants in more detail below.

In any case, the most serious consequence of this separation is its opening up of a space for unconscious phenomenality. The concept of unconscious phenomenality will be marked here as a ‘dual view/framework/model’ for short (recently promoted by Marvan and Polák 2017); similar ideas but construed for sensory qualities can be found in Rosenthal (2010; 2005a; 1991). It should be emphasized that the term ‘dual’ is not meant to imply any material-immaterial duality of entities. It merely expresses the decomposition of phenomenality and consciousness into two independent elements. In contrast to this model, there is what has been labelled a ‘unitary view’, that is, the traditional interpretive framework for the phenomenality of perceptual experiences.

A fundamental point of contention between unitarists and dualists is the question of whether phenomenality can be unconscious. Unitarists regard unconscious phenomenality as conceptual nonsense. Unitarists commonly hold that their view does not need to be explicitly defended because it is obvious from conscious experience itself that it contains phenomenal properties. Therefore, it is argued, the unitary view is to be preferred over the dual, and a dualist bears the burden of proof.

It is true that unitarism is embedded at the very heart of considerations on phenomenality. It seems reasonable to take it as the default position. But what particular reasons are given for it? I think it is neither because phenomenal qualities cannot take place unconsciously in a conceptual or even metaphysical sense. Nor is it because it has been empirically demonstrated that unconscious phenomenal qualities do not exist. The only recognizable reason for the absolute preference for unitarism is a subjective observation that we only have reportable experience of perceptual qualities if we are *consciously* experiencing them. To conclude from this fact that unconscious qualities cannot occur is unwarranted, or at least premature. It is very much an open question as to who has the burden of proof. The fact that we are more familiar with unitarism, and most agree that unitarism is true, neither justifies that unitarism has to be

the appropriate view, nor that the burden of proof lies on dualists. But surely the unitarists are right that, in order to take the dual view seriously, we need to find convincing philosophical arguments for it.¹

The central quest of this chapter is to reconsider the concept of phenomenality in light of the dual view. I believe rethinking could help to better understand what phenomenality is, and perhaps it could even lead to a redefinition of phenomenality. For the unitarists, unconscious experience is an oxymoron, but so are the unconscious qualities.² I assume that the fully fledged unconscious qualitative properties are possible, at least conceptually. It is likely that empirical testing of such a controversial proposal may take time. But it is also possible that the unconscious presence of phenomenal properties cannot be directly demonstrated in principle because there is no experiential route to them.

It is to be emphasized that a number of objections to the concept of unconscious qualities has arisen. Most, if not all, have their origin in differences in the understanding of three central concepts: *phenomenality*, *what-it's-likeness* (WIL,³ for short), and *consciousness*. The debate about unconscious qualities and its conceptual, logical, or even empirical possibility relies heavily on how we understand these three concepts.

2.2 Breaking the tight connection between phenomenality, consciousness, and what-it's-likeness

Admitting unconscious phenomenality substantially affects the triadic relation between phenomenality, what-it's-likeness (WIL), and consciousness. In the unitary model, these concepts are heavily bound together in terms of their definitions. In the dual model, this coupling largely disappears, so that the relations of these concepts take a different form. The decoupling therefore necessarily entails a reconsideration of the stipulated definitions of these fundamental terms. I will address three types of relations of these concepts that need to be reconsidered, compare how the nature of these relations differs in the case of the unitary and dual models, and propose a substantial modification, particularly in the definition of the term WIL. Since perhaps the most important move of the dual model is that it separates phenomenality from consciousness, it is best to begin by analysing the relation between these two concepts.

2.2.1 *Phenomenality and consciousness*

The unitary model does not allow for phenomenality without consciousness. Phenomenality (phenomenal character) is always conscious. Consciousness is one of the definitional features of phenomenality or, more boldly, consciousness amounts to phenomenality (supposing, for now, that there is only phenomenal

consciousness). The main consequence of this is that in a unitary model, the concepts of phenomenality and consciousness merge, or at least there does not seem to be a reason to distinguish them ontologically.⁴ This understanding can be illustrated, for example, by Block's definition of phenomenal consciousness (Block 1995) where the phenomenal literally entails being conscious.

It is irrelevant for our consideration whether there are two kinds of consciousness, that is, access consciousness as the latter, or whether access is not a separate kind of consciousness, but rather a mechanism pointing to the content of our current conscious experience that can be used for reasoning and rationally guiding speech and action (Block 2007; 2011). Phenomenal consciousness seems to be the cornerstone of all considerations of consciousness. In other words, either there is more than one consciousness—and then it needs to be determined what the others are (that one of them is, for example, access consciousness, how they relate to each other, etc.)—or there is only one consciousness (say, phenomenal), but then it is pleonasm to say that it is phenomenal. It would just be consciousness, full stop. I am presupposing here that the only consciousness is the phenomenal one.⁵ That we find it non-trivial and important to attribute to it the adjective 'phenomenal' indicates that phenomenality is an essential feature of that consciousness. Although, from the point of view of unitarists, of which Block is undoubtedly one, consciousness and phenomenality cannot be separated, still the question arises as to how the notion of 'phenomenal' relates to the notion of 'consciousness'.

Regardless of the differences in the concept of phenomenal character (cf. Tye 2021), phenomenal properties (qualitative properties) that give it a shape are standardly defined as intrinsically conscious. This entails that consciousness is their intrinsic property (no qualities without consciousness). In this case, consciousness is a constitutive property of phenomenal character. This property is necessary for phenomenal character to take place, though probably not sufficient (as also other properties may be needed for a mental state to become phenomenal). Thus, for a phenomenal character to be without the property of consciousness necessitates an overt absence of phenomenal character. This conclusion is a logical consequence of espousing the unitary model. If the identity between consciousness and the phenomenal character holds, then the unitary model probably does not need to explain how it happens that consciousness and phenomenal character come up always together. This would be by definition and also by the fact that identity requires no further explanation. From my perspective, there are three possible arrangements for the relationship between consciousness and phenomenality.

The first option is a conceptual and factual inseparability. In this case, the two elements are altogether inseparable; more precisely, phenomenality amounts to consciousness. This setting requires that phenomenality and consciousness be identical. Phenomenal means conscious by default, and conversely, conscious always means phenomenal. Expressed in this way, the relation upholds the

requirements imposed on the strict identity (i.e., reflexivity, symmetry, and transitivity). This is the unitarist model to which I assume many would subscribe.⁶ In this model, although the terms ‘phenomenal character’ or ‘phenomenal properties’ are used frequently, they always mean ‘conscious phenomenal character’ and ‘conscious phenomenal properties’. The short version is allowed because in the unitary model the attribute ‘conscious’ does not add anything informationally enriching.

The second option is conceptual separability but factual inseparability. This view postulates two distinct neural mechanisms: one constitutes phenomenal qualities, the other is responsible for these phenomenal qualities becoming conscious. A good example of this approach is Prinz’s theory of Attended Intermediate-level Representation (AIR).

The AIR theory of consciousness states that the phenomenal character is neurally constituted by ‘vectorwaves’. A vectorwave is a pattern of activity in a population of pyramidal neurons in the cerebral cortex. This pattern has distinct temporal dynamics that correlate with a particular phenomenal quality, say red, C3 on the piano, the taste of fudge, and so forth. For these qualities to become conscious phenomenal qualities, three conditions must be met. First, the qualities must be processed at an intermediate-level of representation in the cortex (neither too pointillistic nor overly abstract, categorical). Second, the processing of the qualities at the intermediate level must be modulated by attention (Prinz 2012, 89). Third, there must be synchronous firing of vectorwave neurons in the gamma band (oscillations of 25 to 70 Hz). When synchronous gamma oscillations are triggered, this turns perceptual qualities into a conscious phenomenal state.

Prinz explicitly states that for phenomenal experience to take place, both mechanisms must be carried out simultaneously (Prinz 2012, 143–144). In this case, again, phenomenality occurs together with consciousness, but two neurally distinct mechanisms or processes are responsible. Prinz admits that the contents of our perception can also be unconscious, and this is the case when synchronous oscillations are absent, only vectorwaves are present (Prinz 2015, 384). This view is halfway between unitarism and dualism. It is close to unitarism in that the phenomenal character of experience occurs exclusively at the conscious level. The mechanisms responsible for consciousness simultaneously perform some special activity that causes initially non-phenomenal contents to become phenomenal and conscious at the same time. It is close to dualism in that AIR theory distinguishes two mechanisms, one for phenomenality, the other for making phenomenality conscious.

This second option (conceptual separability but factual inseparability) has the methodological advantage of respecting the conceptual differences between the notions of ‘phenomenality’ and ‘consciousness’. This allows us to deal with the problem arising in the first option (conceptual and factual inseparability) concerning the fact that the term ‘consciousness’ is uninformative because

it adds nothing to the term ‘phenomenality’. Acknowledging the conceptual difference between the two terms opens up space to consider whether there are mechanisms at the neural level that implement each of these features entirely independently (i.e., factually separable). This leads us to a third option.

The third possibility admits both the conceptual separation of phenomenality and consciousness, and that in fact phenomenal episodes can arise without the presence of consciousness. Two alternatives are on offer here. Either only some phenomenal properties may take place unconsciously, or any from a plethora of phenomenal properties may be actually unconscious (more on that later). The first alternative might be called the ‘compositional model’. The general idea is that a phenomenal state can be understood as a cumulative aggregate of a certain number and types of phenomenal components (properties) occurring together at a given moment. The composition of phenomenal properties completely determines the nature of a given phenomenal state.

This model, however, can be understood in either a narrow or a broad sense. In the narrow sense, it is only a model of the way qualitative properties constitute a phenomenal state. Each ingredient that is added or subtracted changes the nature of a phenomenal state in question. In contrast, in the broad sense the compositional approach can be understood as a model of the way in which an initially unconscious mental state becomes conscious. In the broad sense, then, it would be the case that only certain specific combinations of phenomenal properties directly determine that a particular phenomenal state becomes a conscious phenomenal state. Other combinations presumably are capable of producing a phenomenal state, but not a conscious one. This model thus involves that phenomenal states can exist unproblematically at the unconscious level.

Perhaps the most radical model of unconscious qualities is the version that attempts to relate the possible mechanism of the emergence of qualities and the way in which these qualities become conscious, while rejecting the constitutive contribution of phenomenal qualities to the way in which these qualities become conscious. This is the original dual model (Marvan and Polák 2017). This variant separates consciousness and phenomenality not only conceptually, but also assigns each an empirically distinct role in the process of constituting conscious experience. However, the original dual model differs from the compositional view in important respects. The original dual approach claims that any from a plethora of phenomenal properties may be potentially unconscious. This radical and unorthodox claim assumes that phenomenal qualities can be fully preserved, in all their specific traits, even at the unconscious level. The main reasons for the dual model are twofold: (1) the explanatory power of this model in explaining various forms of unconscious perception (perceptual priming, perceptual masking, neglect, blindsight, etc.) (for more on that, cf. Marvan and Polák 2017); and (2) a methodological simplification in the search for neural correlates of phenomenal consciousness (Marvan and

Polák 2020). As regards the first reason, that is, explanatory power, I will discuss some issues of this point later in section 2.2.2 *Phenomenality and what-it's-likeness*.

As indicated in the previous paragraph, the second main reason to prefer the dual view is methodological, that is, the relative ease of searching for neural correlates of consciousness (NCC) mechanism. Unlike the compositional model, it is not the case here that a certain critical mass of phenomenal properties triggers the process of conscious presence of these properties. In this model, no amount or specific combination of phenomenal qualities can be considered sufficient for conscious phenomenal experience. An arbitrarily large amount of phenomenal qualities can be lumped together but, by itself, the aggregate will never entail a conscious phenomenal state. A necessary condition for a phenomenal character to become conscious is a neural mechanism that enables the phenomenal character to become conscious and thus, possibly, available to the subject for further conscious processing. The dual model postulates one such specific neural mechanism that has no phenomenal properties per se, but converts specific, already constituted phenomenal qualities into their conscious form. The mechanism is assumed to be universal across all sensory modalities⁷ and, whenever it is carried out and the corresponding phenomenal quality is simultaneously constituted, this content becomes conscious. (For a more detailed proposal of such a neural mechanism, see Marvan et al. 2021; Bachmann 2011). This model allows for a methodological simplification of the search for NCC in that it considers two distinctive types of neural processes, both of which are involved in the occurrence of conscious perceptual experience. Their individual roles, and especially the generality of the latter, make it easier to specify how conscious perceptual experience arises than is the case in the compositional model, which lacks specification of the circumstances under which a perceptual episode becomes conscious.

An important constraint that the original version of the dual model imposes on the nature of consciousness is that the general neural mechanism should have no qualitative or other psychological properties. Its only role should be to transform previously formed phenomenal qualities into their conscious form. The proposed general mechanism of consciousness formation assumes that perceptual qualities are primarily processed unconsciously, and the general mechanism modulates this processing of qualities to the extent that is necessary and sufficient for the consciousness of phenomenal qualities.

2.2.2 *Phenomenality and what-it's-likeness*

Attempts to define phenomenality (phenomenal character) are always based on the unitary approach and do not go beyond it. Phenomenality is standardly defined by features (see, e.g., Drayson 2015; Schlicht 2011) which, obviously,

are conscious. Therefore, the overwhelming tendency is to treat WIL⁸ and phenomenal character as synonymous. A phenomenal character is thus typically defined by what-it's-like for the subject to undergo an experience of a certain type. Or it may also be the other way round: WIL is the definiendum whose definiens is a description of a phenomenal character individuated by its phenomenal properties. Examples of definitions illustrating this point can be found, for example, in Dorsch (2018, 2), Chalmers (1996, 10), and Block (1995, 227). WIL is a characterization of conscious experience through a dictionary of phenomenal phrases. The use of these phrases only makes sense when our perceptual states are conscious. The dual model, in contrast, aspires to individuate phenomenality and WIL independently of each other.

To understand the distinctness of phenomenality and WIL in the dual model, it is useful to follow Kriegel's analysis of phenomenal character. According to this analysis, the phenomenal character consists of the qualitative character and the subjective character (Kriegel 2005). Qualitative character encompasses properties by virtue of which one's experience of drinking red wine is different from drinking water and that is, in turn, different from hearing the sound of a violin. Subjective character brings a new dimension to the existence of constituted qualities through which it is something *for us* to be in a state which has a qualitative character.

Kriegel (2005) conceptually distinguishes between these two aspects and ascribes different properties to them. However, this approach is still based on a unitary model because it assumes that both *qualitative* and *subjective* character occur exclusively at the conscious level; these are two aspects of a single conscious experience. Their compresence is then referred to by the umbrella term 'phenomenal character'. The key point is that, according to the standard usage, neither can occur at the unconscious level. In this respect, Kriegel's view falls under the unitary model. In contrast, the dual model proposed by me here differs from the above in that one of the two elements, the *qualitative character*, can fully occur at the unconscious level.

The admission of unconscious phenomenality complicates the situation in that its opponents regard the concept as nonsensical. Some argue that dualists either use the term 'phenomenality' in a different sense than unitarists or have a different understanding of the concept of 'consciousness'. Advocates of the dual model have two options. Either they can insist that identical phenomenal properties can exist at both conscious and unconscious levels—and with the advent of consciousness, nothing changes in the qualitative characteristics—or they can concede that when unconscious contents become conscious they qualitatively change somewhat. In other words, the dual view has to clarify whether unconscious phenomenality simply means phenomenality without the presence of consciousness or phenomenality that lacks a WIL dimension in addition to the lack of consciousness. The dual model of Marvan and Polák (2017) advocates the latter by default. If consciousness is removed, then

the WIL dimension disappears at the same moment. Having unconscious experience does not feel like anything. It is simply absurd to ask what it is like for me to have an unconscious experience of sharp ankle pain. It is worth noting that this is also a natural consequence of unitarists defining phenomenality through WIL features. Since WIL features are inherently conscious, it follows for unitarists that phenomenality is also inherently conscious. Unitarists then quite logically object to proponents of unconscious phenomenality in that they either impose a non-standard definition of phenomenal character or invoke a different notion of consciousness.

Dualists are thus forced to deal with a dilemma. Either they acknowledge that their definition of phenomenality is different from the standard one, or they explain how their notion of consciousness differs. As for the second horn of the dilemma, and considering that the debate on the concept of consciousness is still ongoing, I see no reason to understand consciousness any differently from how it is understood in current debates. And it does not seem to me that the notion of unconscious phenomenality requires abandoning the standard understanding of consciousness as something that allows us to experience perceptual and cognitive episodes.

The standard dualist seeks to preserve both an unchanged definition of consciousness and an unchanged definition of the qualities. However, they must give up one of these, otherwise they cannot convincingly explain the difference between the unitary and dual models. The first horn is the possibility that dualists have changed the definition of phenomenality. I believe, though it may make it more difficult to defend the dual view, that there is indeed a shift in the dual model's definition of phenomenality. More precisely, there is a narrowing of the orthodox definition of phenomenality. The difference in definitions can be demonstrated using Kriegel's concepts of *qualitative character* and *subjective character*, mentioned above. It should be emphasized, however, that I will use the term 'subjective character' in a different sense than Kriegel. Kriegel defines subjective character in terms of for-me-ness. Without going into details, for-me-ness is that feature of a conscious state by virtue of which there is something it is like for the subject. For-me-ness and qualitative character thus together constitute WIL experience. My concept of 'subjective character' within the dual model is somewhat different. I propose to understand 'subjective character' as a universal aspect, that is, common to all our conscious experiences, whether perceptual or cognitive. I will explain this concept later, but I refer to it below as 'vividness'. Vividness and qualitative character thus constitute WIL experience. For now, however, we can speak generally about the qualitative and subjective aspect.

The unitary model, where the vast majority of current uses of the concept of phenomenality fall, defines phenomenality as the inseparable unity, if not outright identity, of the two aspects. The qualitative aspect and the subjective aspect cannot persist without each other. The dual model requires not only a

conceptual, but also a factual separation of qualitative and subjective features. While the latter cannot take unconscious form, the former can. The dual model I am defending here works with a narrower definition of phenomenality that includes only qualitative properties, not subjective ones (in the sense of vividness, for-me-ness, or whatever concept we arrive at in the future). In both models (unitary and dual), WIL can be identified as a conscious episode involving phenomenal character. If, however, phenomenality becomes unconscious, no WIL can take place unconsciously because, as said, there is no point in asking what it is like for someone to be in an unconscious state. To unitarists, narrowing the definition may seem like a violation of the rules of the game because dualists now have a different notion of phenomenality in mind than unitarists. So when dualists treat unconscious phenomenality, it is not the same phenomenality that unitarists put in place.

Two key questions arise. First, what benefits does this definitional narrowing of the notion of phenomenality bring us, and why should we prefer it to a broader, unitary notion? The second question is then how to define WIL in the dual model (this will be addressed in the last section 2.2.3 *Consciousness and what-it's-likeness*). I will first comment on the reasons for the dual model preference. The introduction of a narrow definition may appear to be a significant problem because an opponent of dualism may state that we are working with a non-unitarist definition. In my view, it has at least one major advantage: It allows for an efficient and easier explanation of unconscious reactions to perceptual stimuli.

The main benefit of postulating unconscious qualities is an efficient explanation of how unconscious perception occurs. The narrow definition conceives of phenomenality as identical to sensory⁹ qualities. Since sensory states need not be conscious, sensory qualities of these states are those

properties in virtue of which we distinguish among sensations as having distinct sensory content. There is no reason to hold that these differences can obtain only when the sensation is conscious. The distinctive sensory properties of nonconscious sensations resemble and differ in just the ways that those of conscious sensations resemble and differ, differing only in that the one group is conscious, whereas the other is not.

(Rosenthal 2005b, 63)

In the dual model, it is these sensory qualities that are causally responsible for our ability to respond to external stimuli, whether or not we are aware of these qualities in the WIL sense.

If we were to insist that unconscious qualities cannot exist, we would have to explain unconscious responses to stimuli (e.g., in blindsight, subliminal perception, visual neglect, automatic long-distance driving, etc.) by causes other than those we postulate as the causes of our responses in conscious

perception. In conscious perception, certain of our reactions are caused by our qualitative properties, whereas in unconscious perception these qualitative properties would be completely missing. New causes, distinct from those involved in conscious behaviour would have to enter into the explanation of why, for example, a long-distance driver can drive even though he is intermittently not conscious of his own driving. In these cases two independent causes would contribute, one during conscious, and the other in unconscious perception. The following dilemma would thus arise for an explanation of the causes of conscious driving: overdetermination or epiphenomenalism. Overdetermination would mean that conscious responses have, on the one hand, a cause in conscious qualitative properties but, in addition, the episodes and processes involved in unconscious perception also contribute causally. But if either of these two categories of causes is sufficient for the relevant reaction, then the presence of both of them is redundant, not cost-effective, energetically demanding, and so forth.

On the other hand there is the dreaded epiphenomenalism of phenomenal qualities. Provided that perceptual qualitative properties are absent during unconscious perceptual discrimination, then it would be difficult to explain what particular role these qualities might play in conscious perception. Either the unitary model has to postulate a distinct (neural) mechanism for unconscious processing—but then it will face overdetermination for cases of conscious perception—or the unitary model will condemn perceptual qualities to the role of passive ‘bystanders’. In a somewhat different context, but aptly expressed by Kriegel (2003, 3), “In particular, the fact that blindsight patients can apparently discriminate colours bears against the notion that blindsight involves no sensory quality ... For it is difficult to see how a perceptual state may represent redness in an unqualitative manner”. Thus, it seems reasonable to allow for a dual model that explains both conscious and unconscious perception using the same set of causes, that is, the qualitative properties of phenomenal states that guide our action.

2.2.3 *Consciousness and what-it’s-likeness*

To understand the shift in the relation between consciousness and WIL within unconscious phenomenality framework, it is pivotal to delineate WIL in the unitary model. In the unitary view, there seems to be no point in separating WIL and consciousness. If, as argued earlier, characterization of perceptual states via WIL is the same as characterization via phenomenal properties (phenomenality), and phenomenality can only be conscious, then WIL simply cannot persist outside the stream of consciousness. ‘WIL’ and ‘phenomenality’ are coextensive terms. I would even say that WIL is constitutive of consciousness. In the unitary model, it is the WIL that gives shape to consciousness.

In contrast, in the dual model, WIL is separate from phenomenality to the effect that the two concepts are not coextensive. The requirement to define WIL differently in the dual model is driven by the recognition that the standard unitary view considers phenomenal character to be identical to conscious phenomenal character. Just a reminder that, in the unitary model, by adding the adjective ‘conscious’ we are not attaching anything to the phenomenal character that it does not already comprise. In the dual model, however, qualitative properties, that is, phenomenality, can take on unconscious form. Therefore, the conscious experience of WIL kind cannot be uniquely individuated by qualitative properties alone. While it is true that the way we ordinarily get acquainted with qualitative properties cannot do without their presence in the stream of consciousness, the constitution of qualitative properties on the dual model’s account cannot depend on consciousness. Qualitative properties are thus a necessary condition for WIL experience, but not a sufficient one.

Since the dual model allows for the existence of unconscious phenomenality while respecting the unitary thesis that WIL can only exist as conscious, this necessitates phenomenality and WIL to be individuated independently.

So what does this claim imply? Both conceptions (unitary and dual) must explain how the unconscious perception differs from the conscious one. What feature or set of features does our perceptual state have to have in order to be said to be conscious? (Schlicht 2011, 506) In both models, this is a situation in which it is reasonable to ask the question, ‘What is it like to be in the perceptual state?’. But, given that in the unitary model, WIL amounts to phenomenality, *the feature* is the presence of phenomenal properties. The unitary model identifies WIL with phenomenal character involving both qualitative and subjective properties. This is where the two views fundamentally diverge. The dual model has to reject that phenomenal properties make the difference between unconscious and conscious perception, and so this model must explain how WIL differs from phenomenality.

The fundamental question that should concern us is thus the nature and emergence of the WIL experience. I propose a variant in which the WIL experience appears as a dynamically evolving composite of qualitative features, a process of becoming awake¹⁰ (i.e., a quantitative state, or level of consciousness) and the cortical neural mechanism responsible for the transformation of an initially unconscious qualitative state into a conscious state. This complex process involving the three components could generally correspond to what some authors currently put forward as a ‘global state of consciousness’ (Bayne et al. 2016; Mckilliam 2020).

Given that qualitative properties are constantly changing in the stream¹¹ of conscious experience, this experiential stream should maintain some universal feature. A feature that allows us to identify qualitative properties through the WIL experience and at the same time constitutes consciousness as something

that persists even when its qualitative content changes. In my view, this universal feature that is present whenever a WIL experience can be identified is vividness. Something that ensures experiential stability in a process of constant changes in qualitative content. Regardless of what the specific content is at any given moment, vividness might be a fundamental feature of the flow of our experience. I propose to conceive of vividness as an underlying universal property of every conscious experience that is present in every singular case of WIL experience, though in varying degrees of intensity.

I consider vividness to be a distinguished psychological property. Vividness allows for the formation of WIL and it is thus the necessary condition for qualitative character to be experienced. But unlike qualitative character, vividness is more stable and changes rather gradually over time. For a basic definition of the role of vividness we can turn to psychophysics.

Suppose a primed person being able to respond to a subliminal stimulus (i.e., lacking direct sensory experience) only if the stimulus is of a certain colour,¹² say red (which is, in a dual view, a phenomenal quality, although it is not consciously perceived on this occasion). The dual model hypothesizes that the successful performance occurred because qualitative properties of red were involved in the unconscious discrimination of the stimulus (likewise Prinz 2017; Brogaard 2011, for blindsight). Obviously, one may ask: If the same sensory neurons tuned to red respond, but do so somewhat ‘weakly’ (subliminally), are they still carrying phenomenal qualities? A correct response according to the sensory cue suggests that discrimination was based on objective characteristics carried by neural processing of qualitative properties. However, the corresponding experience of this quality, that is, WIL, was missing because the times for subliminal priming are too short for the vividness component to arise for this particular perception.¹³ For both cases, conscious and unconscious, objectively measurable physical qualities—quantitatively changing—are ‘mirrored’ in subjective qualities—changing in quality space¹⁴ (QS)—but the universal dimension applying to all qualitatively different stimulus-percept correspondences is missing. I speculate that vividness is zero for the below-threshold discriminations of physical qualities and above zero for the above-threshold discriminations (and ratings) of the same qualities.

For a rough outline of how WIL might be formed, it is necessary to think about the possible causal relations behind the formation of both parts of the WIL experience. Regarding qualitative character, I think QS theory is a good causal explanation. In short, QS theory allows us to explain unconscious perception without having to postulate distinct underlying neural mechanisms for conscious and unconscious qualitative properties, respectively. Regarding the emergence of vividness (i.e., subjective character), the situation is more complex, and I hypothesize that this may be because there is no consensus on how to include *levels* (i.e., quantitative states) of consciousness in the

explanation of consciousness. I am inclined to think that the dimension of *levels of consciousness* plays a key role in the process of the arising of vividness.

Unconscious perception models often claim that the difference between conscious and unconscious perception is that unconscious perceiving is impoverished in some way. Based on the default preference of the unitary model, it is claimed that the missing properties are the phenomenal properties. On the other hand, the dual model states that, since phenomenal properties (qualitative character) are preserved at the non-conscious level as well, it is the property of *being vivid* (i.e., subjective character) that is missing in these unconscious cases. So unconscious perception is unconscious by virtue of reducing vividness and not phenomenality. One is forced to ask, then, what exactly is vividness in the dual model? I tend to explain vividness somewhat preliminarily—and highly speculatively—in terms of a direct dependency on *levels of consciousness*.

I suggest that a WIL episode is a final stage of our ordinary perception. It is the result of bringing together the level (alertness, wakefulness), the qualitative character, and the generic neural mechanism for making qualitative character conscious. The generic neural mechanism—which we assume elsewhere as apical modulation (amplification and attenuation) (Marvan et al. 2021)—is the result of complex neural processes that have their origin already at the level of the constitution of wakefulness, and it is also directly influenced by diverse internal contextual factors. This mechanism may, then, via its integrative functions, confer the conscious status to a qualitative content.¹⁵

The notion of consciousness, then, in the dual model, might be considered a complex function. If put in the multidimensional-global-state-of-consciousness concept,¹⁶ consciousness would be a function of the levels (wakefulness), perceptual qualities, and the cortical neural mechanism responsible for ‘bringing about’ these qualitative contents ‘into’ consciousness.¹⁷ And, in this case, it seems to me plausible that any conscious phenomenal state is, among other things, a causal consequence of being awake/alert and sentient. The causal link leading finally towards a WIL experience originates neurally in arousal sites of the brainstem, responsible for a primordial conditions of NCC, leads to thalamocortical systems for processing perceptual contents of which the final stage of the consciousness-conferring mechanism is apical amplification.¹⁸ Objective observables of these processes could be entropy-based complexity measures, reflecting the transient level or quantity of a conscious state at that moment.¹⁹

The view that vividness is a unique subjective dimension giving a shape to our experience raises a number of questions that cannot be dealt with here. But I think that there are at least two reasons why vividness is a unique phenomenal property: It cannot exist unconsciously, and it is generic or universal, that is, present in all our perceptual experiences. All other properties may be hypothesized as possibly unconscious, under specified

circumstances. Vividness, however, is not causally derived from external stimuli, say, from properties of external perceptual objects. It is an internally generated quality of the experience itself. Its existence is not constitutively dependent on external stimuli, although it may be modulated by them.²⁰ Therefore, although vividness is qualitative, it is—from the point of view of its origin—independent of perceived objects, and therefore vividness does not belong to the same category of phenomenal qualities as standard perceptual qualities (qualitative character). This suggestion is a compromise between orthodox unitarism and standard dual model. It is close to unitary view in that it admits the existence of a phenomenal property that cannot take place unconsciously, that is, vividness. But it is closer to the dual model in the regard that except for this qualitative property, all other qualitative properties can, at least in principle, be unconscious, that is, are consciousness-independent properties.

2.3 Conclusion

There is a dilemma regarding the postulate of unconscious phenomenality: Either unconscious phenomenality is an oxymoron and considering it should be avoided (but then it is to be explained why different mechanisms shall be responsible for unconscious and conscious perceptual discrimination, respectively), or there is a reasonable explanation of unconscious perceptual discrimination, namely that the same qualities are responsible for both conscious and unconscious perception. In the latter case, though, we face an issue of explaining how it is the case that phenomenality (qualities) can be unconscious. I plea for the second horn of the dilemma mainly because, after all, it is explanatorily more parsimonious than the first horn.

In the dual model, and in closely related views such as Rosenthal's, there is a shift in the understanding of 'phenomenality' that leads critics to object that the unitary view works with a different concept of phenomenality than the dual view. If this conceptual shift is unjustified, it would indeed be necessary to reject the concept of unconscious phenomenality. Proponents of the dual model have two options. First, they can claim that there has been no change in the definition of phenomenality—but then they will face an issue that phenomenal experience in the WIL sense can be unconscious. To argue that WIL is also at the unconscious level, however, is to advocate something very radical, counterintuitive, and incompatible with the traditional definition of the notion of phenomenality (qualities). Moreover, unconscious WIL appears to be conceptual nonsense. The other possibility is to hold that the definition of phenomenality has actually changed, in which case phenomenality does not mean the very same thing as in the unitary model. Dualists must then explain how their conception of phenomenality differs from the standard orthodoxy and justify it by stating its merits. The next step is then to persuade unitarists

that the standard definition of phenomenality should be abandoned in favour of the unorthodox, dual framework.

Acknowledgements

I am particularly grateful to Tomáš Marvan, Juraj Hvorecký, David Rosenthal, and Blažej Skrzypulec for their careful reading and indispensable suggestions for improvements of the chapter. I also thank Azenet Lopez, Uziel Awret, and Alberto Voltolini for discussion and comments during the *Conscious and Unconscious Mind* conference in Prague, July 2022, which greatly aided me in writing this chapter.

Work on this chapter was supported by the Czech Science Foundation (GAČR), project no. 20–14445S (‘Dual Models of Phenomenal Consciousness’) realized at the Department of Philosophy, University of West Bohemia.

Notes

- 1 We have discussed the empirical arguments in favour of the dual view in Marvan and Polák (2017) but, see also Marvan (this volume).
- 2 It may be useful to point out that I use the term ‘quality’ and the term ‘phenomenality’ synonymously. However, the argument concerning the difference in the use of these terms in the unitary and dual models requires that I use both terms.
- 3 I use the abbreviation WIL in the sense of what-it’s-like, but also in the sense of what-it’s-likeness. The context should make it clear which variant I am applying. It should also be noted that the concepts of *consciousness*, *phenomenality* and *WIL* are treated here exclusively in the context of perceptual experience.
- 4 Cf., for example, Schlicht (2012) who abbreviates phenomenal consciousness as ‘phenomenology’ and similarly so for access consciousness as ‘accessibility’.
- 5 It is an essential question whether the notion of consciousness must inevitably encompass at least some phenomenal properties, or whether, for example, there is an access consciousness not involving any phenomenal properties.
- 6 Such a strict unitary model excludes a possibility of the existence of consciousness other than the phenomenal. This, surprisingly, might be an issue for many unitarists. They might argue that while it is true that phenomenality cannot exist without consciousness, consciousness can exist without phenomenality. But this necessarily entails the question of what this consciousness could be without phenomenality. More on this below.
- 7 It is likely that the same mechanism plays the role in the case of unconscious cognitive states that become conscious. However, I have limited myself here to qualitative perceptual states. I thank Juraj Hvorecký for this point.
- 8 In current debates that acknowledge the meaningfulness of this phrase (cf. Snowden 2010, for the opposite), WIL is articulated primarily in the semantic context of whether it is correct to read the phrase comparatively, i.e., in the sense of ‘resemblance to something else’ (Gaskin 2019), and if so, then whether this reading is consistent with the notionally or relationally constructed semantics of this phrase (D’Ambrosio and Stoljar 2022). Although I consider the ‘resemblance’ (i.e., ‘similar to something else’) reading to be at least an epistemically progressive

- approach to determining the subjective properties of our experience, in our context this issue can be put to one side.
- 9 Throughout the chapter I use the terms ‘sensory’ and ‘perceptual’ loosely to refer to any perception, with no ambition to account for the obvious differences between them.
 - 10 From the psychological point of view the process of becoming awake (wakefulness) is typical by what psychophysicists call vividness.
 - 11 I use the term ‘stream’ loosely to refer to changing conscious perceptual experience.
 - 12 Cf. Ro et al. 2009; Railo et al. 2012; Norman et al. 2014, for such cases.
 - 13 Indeed, in cases of unconscious perception, we rely on a quality space construction based on mirroring the external properties of the stimulus, whereas in the case of vividness, it does not seem meaningful to look for an external stimulus to match or even be causally related to this generic state. Vividness is, it seems, a purely internally generated trait.
 - 14 Rosenthal’s concept of *quality space* (QS) seems to me an appropriate, though not complete, framework for delineating phenomenal states. QS provides a complete identification of the position of a particular phenomenal property in the occurrence space of other phenomenal properties (Rosenthal 2015). It does this by means of the role that the relevant quality plays in perception (i.e., in perceptual discrimination of stimuli). This is its indisputable and essential virtue. Its incompleteness lies in the fact that it defines particular phenomenal properties only externally—that is, by their position in the structure of quality space. QS thus comes about as a result of physical and functional properties of particular perceptual discriminations (cf., e.g., Young et al. 2014, 2) and only derivatively as a result of our conscious phenomenology.
 - 15 In current philosophical theories of consciousness, different explanations of conferring the conscious status to contents are postulated depending on whether one prefers first-order or second-order theories. For the first, see, e.g., Block 2007; Van Gulick 2004; Kriegel 2009; Tye 1995, for the latter Lycan 1996; Rosenthal 2004; Carruthers 2000. To my best knowledge, though, all, more or less, postulate that for a certain mental state to become conscious a manipulation or transformation of content properties (phenomenal qualities) has to take place.
 - 16 This promising non-linear view on the relation between levels and contents of consciousness has been suggested by Bayne et al. (2016) and labelled ‘global states of consciousness’.
 - 17 These terms are in quotation marks because it is not meant literally that certain mechanisms bring contents into something that is already there as if in advance (i.e., consciousness). On the contrary, the stream of consciousness is the result (vector) of those three basic parameters and their specific properties.
 - 18 More details on how the mechanism of apical modulation works, that it is selective, driven by contextual factors, and so forth, see Marvan et al. (2021); Aru et al. (2020); Aru et al. (2019).
 - 19 For more on this, see Cavanna et al. (2008), and particularly Casali et al. (2013) where the tool for measuring consciousness consisting in the determination of the perturbational complexity index is presented.
 - 20 This can be seen, for example, when we experience such an intense pain that we tend to lose consciousness (i.e., the level changes). Thus, a change in the properties of the content, for example, the intensity of the pain, leads to a change in the global state. Obviously, if we interpret intensity (vividness) not as a property of content

but of level, then it would not be content properties that entails a change in the global state of consciousness, but properties of that basic attunement in the waking state (i.e., changes in vividness).

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