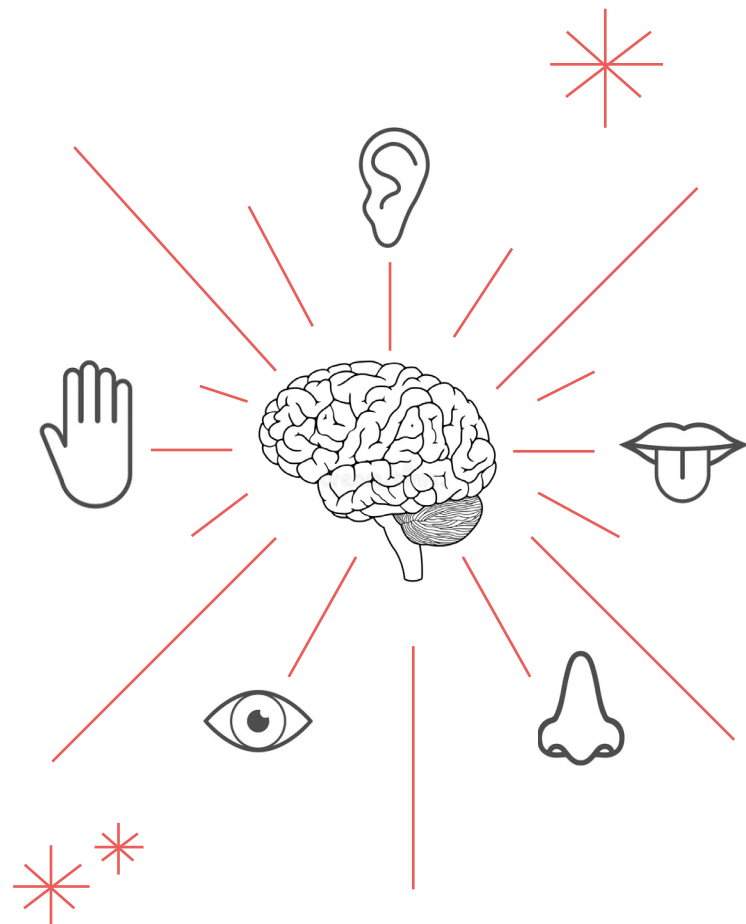


# ON THE STRUCTURE OF CONSCIOUSNESS: Experiential Swaths within Holism



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## ABSTRACT

Some views of holism fail to fully encapsulate the structure and independence of consciousness while others are reductionist in their insistence on a strict structure. After examining holism and mental state consciousness, I move to my own proposal for the structure of consciousness: experiential swaths. By highlighting the phenomenal interdependence of some aspects of consciousness without conceding that all aspects are so strongly intertwined, experiential swaths allow for further conceptual structurization within consciousness.

## I. INTRODUCTION

It is the night before an important exam, and you awake to get a glass of water. The sliver of moonlight shining through the window is sufficient light for grabbing a glass from the cabinet. After you start drinking, something feels wrong. There is something in your mouth besides water, something wriggling, and you spit it out. Turning on the light, you observe that a centipede had crawled into your glass. Your experience throughout this perhaps traumatizing event included stress for the exam, distress over the centipede, and general fatigue. Can your conscious experience be reduced to the sum of these individual experiential components?

In this paper, phenomenal holism and an argument against a reductive view of consciousness will be discussed. The idea that the structure of consciousness is a framework of experiential swaths will be proposed as well. Fully compatible with existing forms of holism, such swaths allow for the categorization of aspects of conscious experience within interdependent frameworks. The conceptualization of swaths accomplishes this without leaving out relational phenomenology, which arises between aspects of conscious experience.

## II. PHENOMENAL HOLISM À LA DANTON

According to Timothy Sprigge's phenomenal interdependence (PI), consciousness is holistic. To Sprigge, "A holistic relation is strong if the kind of whole its terms unite in forming has a character which so suffuses its every element that no element with some difference from it in character could be found without a whole of just that sort."<sup>1</sup> In other words, Sprigge believes that holism implies that the unique character of the whole is so strong that it imprints on every element within it; without the whole, each aspect would not be the same. Such strong forms of holism, or complete PI, propose that all aspects of the whole are therefore connected, whereas weaker forms, or partial PI, propose that only some aspects are so intertwined.<sup>2</sup>

Discussing Sprigge's view, Barry Dainton considers several examples and their implications for PI. The first depicts a shape with several shaded regions, each labeled. He asks the reader to consider the picture as a whole, and then to consider region A and region B, separated by some short distance. If B were to vanish (if one were to cover it with a piece of paper, for example), the reader's experience of A would not

change, according to Dainton. While this example is limited to the visual field, the perception of A would still remain unchanged if one were to add some background sound (unless the noise was so loud it caused a shift in attention). Thus, Dainton argues, PI cannot be true in a strong sense because, if it were, one's experience of A would change upon B vanishing. Dainton's next example is comprised of two images of the same dog. In one, the entire dog is visible while in the other, only the eye is shown, the rest of the animal having been cropped out. The dog seems to be friendly in the first and aggressive in the second. The "context-induced changes" demonstrate "that there are some localised phenomenal interdependencies."<sup>3</sup> Take the Müller-Lyer illusion—two lines of identical length which appear to be of different lengths due to the direction of arrows at their tips—as another example of localized intramodal interdependencies.

Dainton argues that these phenomena could be contingent rather than necessary examples of interdependence.<sup>4</sup> That is, it could be plausible that someone possessing no previous experience with dogs or their eyes would not notice a difference in the eye between the two pictures, while the Müller-Lyer illusion "is certainly due to the idiosyncrasies of the human visual system."<sup>5</sup> Therefore, interdependence would be a result of some identifiable cause rather than a necessary property. Additionally, interdependence of some of the whole of experience, even if necessary, does not entail interdependence of all aspects of experience. Dainton places even less stock in intermodal interdependencies, such as the effect on one's vision due to a change in auditory perception.

Dainton grants that empirical phenomena, such as a ventriloquist illusion, make the claim that the senses are completely independent implausible. However, this does not vindicate Sprigge, since some interdependence does not necessitate total interdependence. Dainton differentiates between Deep Interdependence (DI), such as Sprigge favors, and Shallow Interdependence (SI), whereby phenomenal unity exists yet total interdependence is not necessarily implied. Dainton maintains that SI is most compatible with the empirical evidence.

One way to conceptualize phenomenal unity, which may lead to complete PI, is to begin by examining co-consciousness. This is a seemingly primitive property that arises when two aspects are experienced together, such as hearing a bell ring while seeing a tree, or when two aspects simply coexist within the wholeness of one's consciousness. Co-consciousness relates all aspects of an experiential field, regardless of structure; this is termed phenomenal unity. Take two token experiences,

1 Timothy L. S. Sprigge, *The Vindication of Absolute Idealism* (Edinburgh: Edinburgh University Press, 1983), 218-19.

2 Barry Dainton, "Phenomenal Holism," *Royal Institute of Philosophy Supplements* 67 (2010): 113-39, 10.1017/S135824611000007X.

3 Dainton, "Phenomenal Holism," 118.

4 Dainton, "Phenomenal Holism," 113-39.

5 Dainton, "Phenomenal Holism," 119.



A and V, one auditory and the other visual, taken from the example above. If someone is attempting to achieve a clear and complete picture of A, they must take into account its local phenomenal properties and its relational/global phenomenal properties—those adopted by being co-conscious with V, since hearing the bell at that instance is necessarily accompanied by seeing the tree. Leaving out global phenomenal properties would be to fail to fully capture what it is like to have an individual experience. Thus, Dainton argues for the possibility of a specific variety of phenomenal holism which allows for relationality without entailing interdependence to the point of causation.

According to gestalt theorists, “‘structured’ or ‘organized’ experiential wholes exert an influence on the character of their component parts.”<sup>6</sup> Thus, by virtue of being part of a whole, individual aspects are affected. Sprigge believes experiential components are, by definition, affected as such. Take, for example, the famous duck/rabbit image. Dainton writes that holists may argue that meaning, or representational content, can cause the change in the viewer’s perception of the two animals, thus suggesting DI. A question then arises: can concepts (such as “duck” or “rabbit”) find a home within sensory experience? That is, is “duck”—the concept—a part of one’s sensory experience? And the answer can plausibly be either yes or no, according to Dainton. Gestalts do certainly exist in everyday life—a familiar street (the cars, trees, road, and so on, organized by their familiarity and physical closeness) is one such example. However, Dainton would argue that “diverse experiential elements do not form a pattern of any recognisable kind; taken together, they lack anything which could plausibly be called organization or structure.”<sup>7</sup> The next section will argue against this attack on the structure of consciousness by introducing experiential swaths.

### III. EXPERIENTIAL SWATHS

Anthony Peressini offers a different account of holism.<sup>8</sup> He argues, rather than ascribing consciousness to individual mental states, one should ascribe it to the being as a whole. Accepting the summation of individual mental states as equivalent to the whole is what Peressini terms “qualia reductionism.”<sup>9</sup> A key characteristic of consciousness is lost if it is reduced to the summation of a series of states and disregards the whole of the entity. According to Peressini, mental states should be viewed as “qualitative aspect of the whole of the subject’s” something-

it-is-like (SIL).<sup>10</sup> SIL is a view of holism that understands that there is something it is like to be a creature that is more than simply the sum of the mental states of the creature. There is something it is like to be the creature by virtue of it being conscious. Rather than understanding consciousness as a property of individual mental states, Peressini takes consciousness as a property of the entire organism which cannot be pre-theoretically decomposed into the former, for doing so fails to encompass the organism’s entirety of experience.<sup>11</sup> For example, one’s sight of a blue pencil is part of their entire subjective experience at that moment in time. The aspect of the whole of conscious experience that is lost to qualia reductionism is consistent with the global phenomenal properties for which Dainton advocates. This further reveals the necessity of the whole in order to fully encapsulate what it is like to be an experiencing experienter.

Peressini is entirely justified in doing away with mental states. However, viewing consciousness as only a whole entity does not do justice to the apparent structure that exists within it. Intuition favors the existence of strong connections between various aspects of one’s experience. Dainton lists several empirical phenomena that demonstrate these interconnections:

*the sound-induced flash:* when a single flash of light is accompanied by several auditory “beeps,” subjects tend to perceive several flashes of light, rather than just one

*the touch-induced flash:* if subjects are shown a single flash accompanied by two taps on the skin, they tend to see two flashes

*the parchment skin illusion:* when subjects are asked to rub their hands together while listening to high frequency sounds delivered via headphones, they report that their skin feels unusually smooth and dry (like parchment); if the high frequencies are dampened, subjects report that their hands feel unusually smooth and moist.<sup>12</sup>

Such empirical evidence shows strong support in favor of some inter-modal interdependence.

Upon intake of any sensory information, our brains automatically place such input within our structural frameworks. The infamous dress

<sup>10</sup> Peressini, “Nothing It is Like,” 4656.

<sup>11</sup> “Pre-theoretically” is key here as Peressini’s view is compatible with empirical study. According to his view, current evidence cannot justify *a priori* decomposition of an organism’s consciousness to the sum of individual elements of the organism’s experience, though further empirical evidence may later support this approach.

<sup>12</sup> Dainton, “Phenomenal Holism,” 122.

<sup>6</sup> Dainton, “Phenomenal Holism,” 127.

<sup>7</sup> Dainton, “Phenomenal Holism,” 132.

<sup>8</sup> Anthony F. Peressini, “There is Nothing It is Like to See Red: Holism and Subjective Experience,” *Synthese* 195, no. 10 (2018): 4637-66, 10.1007/s11229-017-1425-9.

<sup>9</sup> Peressini, “Nothing It is Like,” 4645.



debate of 2015 is one such example; is it blue and black or white and gold? The difference in perception of the dress's color comes down to one's implicit assumptions about the lighting in the photograph.<sup>13</sup> I stand by my perception of the dress as white and gold; the dress is clearly in the shadows, though my brain makes that judgment without explicit voluntary input. As I look at the photograph, I place it within my own frameworks and my brain takes over, filling in information as it pleases. This "filling in" occurs beyond the dress phenomenon. As I take in my surroundings, whether actively or passively, I have no choice but to categorize my perceptions; it is an inescapable biological necessity that our brains implicitly do so, assigning context and attention to sensory inputs. For example, my computer screen, though at a low brightness setting, seems awfully radiant to my tired eyes. With my eyes fixed on the screen and the many tabs I have open, the photos on the desk, along with most of my physical surroundings, remain in the background of my perceptual field. One would be hard-pressed to argue that all aspects of my experience receive equal amounts of my attention.

While I agree with Dainton's phenomenal unity, as well as the co-consciousness of all aspects of my experience, I think there is structure to consciousness beyond its identity as a unified whole. I propose conceptualizing experiences as fitting into more complex causally related frameworks. Certain aspects of my experience are more interdependent than others. My sight of the screen, the feel of the keyboard, and the hardness of my chair are certainly at the forefront of my attention in the moment. These sensory experiences are tied to my non-sensory experiences, such as my thoughts about the paper or my dread of having to submit this paper for review. These experiences, along with several others, are significantly more phenomenologically interdependent than other portions of my experience. For instance, if the pictures on the desk were to disappear, it would likely take me a while to notice, and even then, I would be unlikely to lose concentration.

To accommodate the phenomena outlined by Dainton, as well as the structure that I believe exists within consciousness, I propose that we replace "mental states" with "experiential swath." I have chosen the word "swath" because of its vague boundaries, meant to contrast with the connotation of clear boundaries invoked by the term "state." I borrow the term from Peressini, who uses it as a middle ground between mental states and the whole of the subject's experience.<sup>14</sup> In this paper,

<sup>13</sup> Pascal Wallisch, "Illumination assumptions account for individual differences in the perceptual interpretation of a profoundly ambiguous stimulus in the color domain: 'The dress,'" *Journal of Vision* 17, no. 4 (2017): 5, 10.1167/17.4.5.

<sup>14</sup> Peressini, "Nothing It is Like," 4549.

though, the word refers to a grouping of co-conscious aspects of one's holistic phenomenal experience over time that are strongly phenomenologically interdependent. To demonstrate this point, let us return to the centipede example.

As soon as you awoke, you immediately felt thirsty. The physical sensations of getting out of bed are part of your experience. Your stress for the upcoming exam rises in your awareness shortly after opening your eyes. There are many aspects to your experience. However, upon feeling the first wriggle of the countless legs in your mouth, before you even identified what the sensation was, your experience changed. Your physical sensations, confusion, and subsequent fear all rose to the forefront of your experience. Each one of these components is strongly phenomenologically interdependent. Remove the physical sensation and all the rest fall away, for it is unlikely you would experience fear of a centipede in your mouth when it is not there. These are all part of a single, strongly phenomenologically interdependent swath. The light on the microwave, changing to indicate the passing of another minute, does not significantly alter your experience of the centipede; yet, as Dainton argues, it must be considered as part of your experience for a complete and holistic account. Your stress about the test tomorrow, though pushed to the back of your mind because of the wriggling creature you have just spat into the sink, still exists, not integrally connected to your fright from the centipede yet part of your whole conscious experience nonetheless. It is important to note that these interdependencies, though potentially causal (e.g., the sensation of the centipede causes the fear and unease of the "centipede swath"), are not necessarily causal. This allows for aspects of experience to be co-conscious without being causally linked.

One of the issues with mental states is that they require delineation where there is none. For example, certain experiences are clearly associated with the supposed mental state of "fear," such as the clenching of one's stomach. However, can the qualitative experience of fear be identified and attributed to a mental state? How does it change over time? How does it behave in relation to other mental states or aspects of experience? With experiential swaths, however, these questions are resolved, since, by definition, swaths are relational and cross-temporal.

Therefore, swaths are groupings of co-conscious aspects of one's holistic phenomenal experience over time that are strongly phenomenologically interdependent. However, the question of the nature and structure of these swaths then arises. To begin this discussion, I must touch on the topic of time. Both Peressini and Dainton approach conscious holism by considering the aspects of an experience of subject *S* at a certain time *t*. I have not constrained swaths to specific instants





in time in order to allow for the gradual entrance and exit of different aspects of experience. For example, your stress about the exam, in the above example, is not present at the immediate moment of your awakening. However, it slowly enters your awareness as you shake off the grogginess of sleep. Perceiving experience by slices of time forces an answer to the question: at what exact moment does the stress enter conscious awareness? It implies a threshold that something must reach in order to enter awareness, but setting such a number seems needlessly arbitrary.

Experiential swaths are multi-dimensional such that they stretch over time. Take the “centipede swath,” which includes, among other things, the physical sensations of the bug in your mouth, your confusion, and your fear. The moment of inception of the physical sensations is fairly straightforward. Your neurons fire at a biologically dictated rate. The moment the centipede touches your mouth, the starting moment of your physical sensation can be readily determined. However, other aspects of your swath cannot be so easily demarcated. For example, confusion swiftly accompanies the physical sensations of the bug in your mouth, and once comprehension dawns, fear presumably sets in. Fear might even arise before as you consider the unknown yet wriggling element in your mouth. One would be faced with a hard task in trying to identify the exact moment at which each of these emotions arise, an apparent necessity for the time-slice  $t$  approach.

Similar to their blurring across the dimension of time, experiential swaths blur at their “edges” and can even overlap with other swaths. In the centipede example, the “exam swath” encompasses your emotions about the upcoming assessment, any physical symptoms of your stress, and your desire to go back to sleep. Your “fatigue swath” may encompass the physical feeling of your eyes wanting to close as you walk down the stairs to the kitchen, your mild headache, and your goal to return to sleep. These are by no means complete accounts of the swaths, yet they are sufficient to explain my point. Your desire to go back to sleep, motivated by your fatigue, is also part of your exam swath as you hope to get a good night’s worth of sleep to better prepare you for the exam. This desire to go back to sleep is a part of both swaths because it is strongly phenomenologically interdependent with both. For example, if you did not have an exam the following day and could sleep in, you might not be as motivated to return to your bed. Similarly, if your eyes did not droop quite so heavily and you did not feel the physical symptoms of fatigue quite as strongly, your desire to return to sleep would be diminished. The light on the microwave, blink though it may, has little to no direct effect on either of these swaths, so it is not included in them. If, however, after calming down from the shock of the centipede, you were to glance at

the time on the microwave and see that it was very late, your motivation to go to sleep might change, whether due to renewed or strengthened stress about the exam or conditioning that you should be asleep at that time. In this modification of the original scenario, the light on the clock would become a part of your experiential swaths.

#### IV. CONCLUSION

The concept of experiential swaths allows for and even embraces the limitations of awareness and attempts to create structure within it. As such, experiential swaths, by definition, have magnitude. In the centipede example, the “centipede swath,” at the apex of its experience, is certainly of a greater magnitude than the “fatigue swath,” especially as the rush of adrenaline caused by the sudden confusion and fear aided in the diminishing of your fatigue (another example of overlapping swaths).

While experiential swaths are not easily differentiated, further empirical study may allow us to more clearly pinpoint boundaries of different aspects of experience, both sensory and otherwise. At least for now, experiential swaths are better used to concede that some aspects of experience are more strongly phenomenologically interdependent than Dainton allows but less so than Sprigge claims.

Experiential swaths do not challenge holism. They encompass physical sensations, moods, and emotions—all of which are part of the whole conscious experience of an experiencer. Every aspect of consciousness—that is to say, the local phenomenal properties in addition to the relational or global ones—is accounted for within this view, revealing a level of wholeness that mental states fail to include. A swath’s magnitude may change such that it shifts into and out of focus, or the aspects within it may shift in magnitude relative to one another, such that in the centipede example the fear may overtake the physical. Consequently, the physical may even cease altogether after you spit out the creature despite the continuation of the swath (through fear, confusion, or reflections about the experience).

By highlighting the phenomenal interdependence of some aspects of consciousness without conceding that all aspects are so strongly intertwined, experiential swaths allow for further conceptual structuration within consciousness that has not been previously admitted by Dainton to the appropriate extent. Moreover, this proposal allows for and even invites further empirical study on the boundaries and thresholds of perception, and perhaps inadvertently motivates you to check your glass the next time you get water in the middle of the night.





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