

Can There Be Something It Is Like to Be No One

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Abstract: This paper defends the persistence of the subjective or self-intimating dimension of experience in non-ordinary and pathological states of consciousness such as non-dual awareness, full absorption, drug-induced ego dissolution, and the minimal conscious state. In considering whether non-ordinary and pathological conscious states display any subjective features, we confront a dilemma. Either they do, in which case there needs to be some way of accounting for these features in phenomenal terms, or they do not, in which case there is nothing it is like to be in them. But the dilemma only arises if we assume that opacity rather than phenomenality is a pervasive feature of these non-ordinary states. However, non-ordinary conscious states are deemed phenomenally opaque only by overly restrictive standards of conceivability that: (i) fail to account for the variety of non-ordinary and pathological experience in non-arbitrary ways; (ii) sidestep the problem of the attribution and location of mental content (given intelligibility requirements for experience) or relegate them to illusory constructs; (iii) assume an unproblematic appeal to testimonial evidence. I discuss some cases from contemplative traditions and psychopathology and offer some plausible alternative explanations.

1. Introduction

Is subjectless consciousness possible? That is, does the phenomenality of consciousness admit of subjective indeterminacy or is all phenomenal content structured in some experientially determinate way? In his celebrated 1974 paper ('What is it Like to Be a Bat?'), Thomas Nagel argued that for an organism to be said to have conscious mental states there must be 'something that it is like to *be* that organism — something it is like *for* the organism' (Nagel, 1974, p. 436). Nagel's compelling idea is that conscious mental states are always, and fundamentally, for some someone (*viz.* an organism of some kind). Hence, any account of consciousness must consider both the *phenomenal* — there being *something it is like* for someone — and the *subjective* dimensions — there being *someone for whom* it is like something (Nagel, 2000; Levine, 2001).² The problem of what being conscious is like for someone is often pursued in concert with the problem of what makes conscious mental states present or manifest.³ The latter has to do with the minimal set of neural or physical events and mechanisms necessary and sufficient for the presence of consciousness in certain organisms. While not drawing them apart, my focus here is on whether conscious episodes by their very nature manifest a particular kind of experiential structure that individuates them in some fundamental way regardless of how that structure is realized. An individuated consciousness is *eo ipso* a consciousness *for* someone and *about* something, though it need not be *of* someone — on the view that ownership,⁴ unlike sentience and aboutness, depends on more

² *Contra* Levine (2007), Stoljar (2016, p. 1162) has argued that Nagel's characterization of consciousness in these terms does not suggest a 'a reflexive or self-representational theory'. As I will argue below (§3), reflexive theories do have some advantages over other candidates (e.g. higher-order thought (HOT) and intentionalist theories of consciousness) in accounting for the distinctive what-it-is-like-for-me-ness of conscious experience.

³ This difference is typically cashed out in terms of two interrelated concepts of consciousness: *creature* consciousness (the property of a cognitive system of being sentient or aware) and *state* consciousness (the property that certain mental states have of making one aware of being in them or of involving certain experiential qualities or qualia).

⁴ Using the possessive 'of' for an ownership conception of consciousness should be distinguished from uses that are intended for the conception of 'creature' consciousness, which concerns whether organisms or creatures such as cats, dolphins, and bees are conscious (as opposed to in a state of coma) (Bayne, 2007).

evolved self-representational and information-theoretic processes that infants and non-human animals may lack.

The idea that phenomenal consciousness is experientially individuated in some fundamental way,⁵ however, runs counter to the view that individuation, specifically in terms of subjective intentional acts,⁶ is either a deceptive construct (Frankish, 2016)⁷ or a real but reducible⁸ feature of our cognitive architecture. Individuation may depend on such factors as the development of a phenomenal self-model (Metzinger, 2003) or on the presence of higher- or same-order representations as proposed respectively by higher-order thought (HOT) (Lycan, 1996; 2006; Rosenthal, 1986; 2004; Gennaro, 2012) and self-representational theories of consciousness (Kriegel and Williford, 2006; Kriegel, 2006; 2009).

Most arguments against individuation as a constitutive dimension of conscious experience appeal to a family of non-ordinary and pathological states (drug-induced ego dissolution, depersonalization disorder, meditative absorption, trauma-induced minimal conscious states, etc.) whose experiential content is said to be indeterminate (at least by certain measures). Specifically, such states are said to lack the specification of spatial, temporal, dispositional, and occasionally even of agentive content (Austin, 2000; Blanke and Metzinger, 2009; Vago and Silbersweig, 2012; Carhart-Harris *et al.*, 2016; Tagliazucchi *et al.*, 2016; Müller *et al.*, 2017; Nour and Carhart-Harris, 2017; Millière *et*

⁵ Searle (2000, p. 559) takes conscious states, which he defines as ‘inner qualitative... processes of sentience or awareness’, to be ‘essentially subjective’. In so far as reality contains conscious organism like us, it exhibits ineliminable ‘subjective modes of existence’.

⁶ Subjective intentional acts link the appearance of things with their mode of apprehension: that is, how something looks correlates with and is a function of the way I look at it.

⁷ Frankish’s illusionist account targets not individuation as such but subjectivity or the subjective aspect of conscious experience, according to which there is something it is like to see colours, hear sounds, etc. Illusionism denies that experiences have these qualitative properties, focusing instead on explaining why it *seems* that they do. It attributes this seeming quality to certain distortions in our awareness that lead us ‘to misrepresent the states as having phenomenal properties’ (Frankish, 2016, p. 15).

⁸ Taking individuated mental events to be real even if reducible to the elements of an underlying substrate is typical of certain positions in the metaphysics of mind such as neutral monism (where the basis for both the mental and the physical is neutral) and non-eliminative physicalism, which differ from non-reductionist accounts of the mental such as emergentism and dual-aspect theory. Whether either theory can address the problem of relating the subjectivity of the mental to the specific character of an individuated brain remains an open question (*cf.* Nagel, 2000).

al., 2018; Metzinger, 2020; Letheby, 2020; Millière, 2020). Based on testimonial accounts and diagnosis, the suggestion is that these states are marked not only by dramatic changes in perception, thought, affect, and spatio-temporal orientation, but by a seemingly complete loss of subjectivity. In the case of pure consciousness events and non-dual awareness, the loss is spelled out in positive terms as involving a sense of pure being, oneness, and ecstasy where all thought and sometimes even all perception is said to have completely ceased (Dor-Ziderman *et al.*, 2013; Ataria, Dor-Ziderman and Berkovich-Ohana, 2015; Millière *et al.*, 2018, p. 16).

In considering whether these non-ordinary conscious states display any subjective features, we confront a dilemma. Either they do, in which case there needs to be some way of accounting for these features in phenomenal terms, or they do not, in which case there is nothing it is like to be in them. But the dilemma only arises if we assume that opacity rather than phenomenality is a pervasive feature of these non-ordinary states. However, non-ordinary conscious states are deemed phenomenally opaque only by overly restrictive standards of conceivability that: (i) fail to account for the variety of non-ordinary and pathological experience in non-arbitrary ways; (ii) sidestep the problem of the attribution and location of mental content (given intelligibility requirements for experience) or relegate them to illusory constructs; (iii) assume an unproblematic appeal to testimonial evidence.

I raise some objections to the claim that non-dual states and states of full absorption lack any minimally subjective givenness and offer an alternative proposal that takes non-ordinary conscious states to be phenomenally unified⁹ and phenomenality to exhibit a distinctively self-presenting character.

The paper is structured as follows. In §2 I consider the difference between observational and constitutive accounts of subjectivity, and the problem that overdetermined conceptions of phenomenal content face in charting the aetiology of non-ordinary states of consciousness. Specifically, I discuss the implications of the minimal phenomenal experience model, and whether it can satisfactorily account for the

⁹ Bayne and Chalmers (2003) and Bayne (2004) argue that certain pathologies of consciousness such as split-brain cases and dissociative identity disorder may threaten some kinds of unity (*viz.* of representational content) but not others (of subjectivity or self-consciousness). That is, even for subjects exhibiting a pathology of access, a breakdown of access unity does not entail a loss of phenomenal unity.

subjective dimension of experience (given the asymmetry between subjective and intentional modes of givenness). §3 looks at some pathologies of the body schema and the challenge they pose to the problem of ownership, making the case for a phenomenal difference between the perceived aspects of the body and its experiential givenness. In §4 I consider certain theoretical assumptions about the structure of consciousness and raise some objections to the claim that ‘pure’ or non-dual states lack any minimally subjective givenness. One compelling reason for taking conscious experience to exhibit a minimally subjective dimension is that it makes it easier to account for the integration and binding of various features of experience (Carman, 2005; Bickle and Ellis, 2005; Matthen, 2010; Jacob and de Vignemont, 2010; de Vignemont, 2007). In §5 I examine a Buddhist debate about the persistence of consciousness in states of full absorption associated with the cessation of seemingly all conscious cognitive activity (*nirodha-samāpatti*), and its implications for questions of psychological continuity and phenomenal unity. I also extend the analysis to various pathological cases, offering an argument for why minimally conscious and post-comatose patients are best understood as exhibiting attenuated or less integrated phenomenal content.

Part of the problem with the view that pure or non-dual consciousness is contentless or undifferentiated lies in overdetermined conceptions of phenomenal content as prone to ‘dualistic distortion’, typically associated with lower-level cognitive states or, alternatively, with a transparent self-model generated by the brain. I conclude with an argument for why the phenomenal and subjective aspects of conscious experience are not reducible to kinds of narrow content; rather, they reflect more basic structural dimensions of consciousness. In making a case for the latter, I also suggest that, of the dimensions in virtue of which a mental state is deemed conscious rather than unconscious — intentionality, subjectivity, accessibility, and reflexivity — it is primarily reflexivity that functions as the structuring principle that gives conscious experience its distinctively self-presenting character.

2. Minimal Phenomenal Experience and the Elusive Subject

Does subjectivity vanish altogether in certain conscious states? A satisfactory answer to this question must consider both metaphysical constraints, specifically about the very possibility of subjectless conscious states, and interpretive concerns about how such presumably

unmediated experiential states could somehow be accounted for in epistemically relevant terms (Katz, 1978; Billon and Kriegel, 2015; Gallagher, 2020; Josipovic and Miskovic, 2020; Billon, 2023).

Let me begin with a note of clarification. Those who take subjectivity to stand for the question of how first-person knowledge is obtained, that is, knowledge that one is the subject of one's conscious states, are more likely to endorse the (Humean) view that many, if not most (all?), conscious states lack such subjective reference. On this account, the subject of experience is elusive because self-awareness is taken to be an observational state that, while introspectively available, does not disclose any persistent locus or subject of experience. However, there is some debate about whether subjectivity depends on such explicit representations of the subject as an owner or agent of experience. Howell and Thompson (2017; see also Howell, 2023a,b) claim that only reflective experiences have a sense of subjective givenness or mineness, whereas Zahavi (2005; 2006), Kriegel (2009, pp. 51f.), and Billon (2017) think the constitutively subjective character that gives an experience its distinctive for-me-ness is a universal feature of all conscious mental states. Others have argued for a position somewhere in between where phenomenal content *cannot escape identification*, while denying that self-consciousness is built into every moment of phenomenality (Siewert, 2013, p. 255). And then there are those (e.g. Dainton, 2008, pp. 242f.; Scheer, 2009; Lane, 2015) who reject the notion altogether, arguing that a non-observational sense of mineness is in fact explanatorily vacuous.

The position I defend here aligns closely with the view that the phenomenality of consciousness exhibits an ineliminable experiential structure that at a minimum provides the sense of internal distance necessary for introspective or observational acts to manifest as the intentional states of an owner or subject of experience (more on this below, see also Coseru 2012; 2015; 2020). The metaphysical constraint, then, finds articulation in the seemingly obvious, indeed necessary, *a priori* truth that there cannot be such a thing as a subjectless experience because undergoing, let alone reporting on, such an experience presupposes what is being denied: the subjective or self-intimating givenness of experience that makes its reporting possible (Strawson, 2017; Fasching, 2020).¹⁰ The interpretive concern has to do

¹⁰ I take self-intimation as a thesis that excludes higher-order readings of consciousness as the outcome of a relational, representational, or self-representational process. Following

with reportability. Even if a revisionary metaphysics were to allow for such a possibility, there is still the concern that the phenomenality of such experiential states would be unaccountable or remain unknown.

2.1. Varieties of minimal phenomenal experience

Let's leave aside for now metaphysical and theoretical background assumptions about the nature and possibility of subjectless conscious states and turn to the phenomenality of non-ordinary and pathological states of non-dual awareness and ego dissolution. Consider what it might be like to wake up unaware of having undergone a seemingly complete loss of all sensory and cognitive content. Philip Sullivan, a psychiatrist who suffered head trauma in a car accident, provides the following testimony of precisely such a case:

There was something, and the something was not the nothing. The nearest label for the something might possibly be 'awareness', but that could be misleading, since any awareness I'd ever had before the accident was my awareness, my awareness of one thing or another. In contrast, this something, if it be called awareness, had no I as its subject and no content as its object. It just was. (Sullivan, 1995, p. 53)

That such pathological states bear a structural resemblance to drug-induced states of ego dissolution is obvious from testimonies of individuals being injected with or smoking fast-acting serotonergic psychedelic drugs N,N-dimethyltryptamine (DMT) and 5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT). Consider this example from Strassman's study of Sean:

I immediately saw a bright yellow-white light directly in front of me... I was consumed by it and became part of it. There were no distinctions — no figures or lines, shadows or outlines. There was nobody or anything inside or outside. I was devoid of self, of thought, of time, of space, of a sense of separateness or ego, or of anything but the white light. There are no symbols in my language that can begin to describe that sense of pure being, oneness, and ecstasy. There was a great sense of stillness and ecstasy. (Strassman, 2000, pp. 244–5)

Disruptions of the integrated sense of self-awareness in trauma- and drug-induced ego dissolution exhibit phenomenal characteristics that

Strawson (2017, p. 163), I think it is essential that we retain a simple view of experience, a view that takes all awareness to involve or to constitutively entail an awareness of itself (where awareness stands for *conscious* awareness, an awareness that is self-conscious or conscious of its own occurrence).

closely resemble a family of introvertive states associated with contemplative traditions. Variouslly labelled as ‘pure’ or merely ‘wakeful’, these conscious states are said to lack any trace of subjectivity or for-me-ness. Here is how a practitioner of transcendental meditation describes undergoing such an experience:

I would settle down, it would be very quiet... and... there would just be a sort of complete silence void of content. The whole awareness would turn in, and there would be no thought, no activity, and no perception... At this point I began to appreciate that this inner space was not an emptiness but simply silent consciousness without content or activity, and I began to recognize in it *the essence of my own self as pure consciousness* [emphasis mine]. Eventually, even the thin boundary that had previously separated individuality from unbounded pure consciousness began to dissolve... Once I let go of the veil of individuality, there is no longer ‘I perceiving’ or ‘I aware.’ There is only that, there is nothing else there. (Forman, 1990, pp. 27f.)

And here is an account of non-dual experience from a practitioner of mindfulness meditation:

The sense of living in a world that I experienced... fell completely away and instead there was only the experience itself. The distinction between self and world no longer existed. The contents of the experience were exactly the same, but the perspective of them was so different that the change felt monumental. The world I was experiencing no longer existed independently, because *I had become the unfolding of that experience* [emphasis mine]. The previous ‘I’ as experiencer, chooser, thinker did not exist. Instead, there was experience itself. (Metzinger, 2024, pp. 331f.)

What distinguishes the last two reports from the previous two cases, where the experience is involuntarily induced, is their occurrence in culturally specific settings (meditative retreats) that reflect explicit metaphysical commitments to a conception of consciousness as ultimately non-dual or undifferentiated. It is not clear therefore whether, and to what extent, descriptions that purport to capture the phenomenal character of such pure consciousness events represent accurate reports or should rather be understood as metaphysically inflected perspectives.

2.2. Subjectivity and the minimal phenomenal experience (MPE) model

But even if such reports are descriptively accurate, it is still an open question whether their seeming ubiquity in contemplative traditions

challenges basic intuitions about the irreducibly subjective character¹¹ of experience. As the testimonial accounts above suggest, ‘pure’ or non-dual states of consciousness exhibit reduced or diminished content. Windt (2015) has introduced the notion of ‘minimal phenomenal experience’ (MPE) to describe such seemingly subjectless or egoless conscious states. Building on Windt and his earlier work on the phenomenal self model,¹² Metzinger (2020; 2024) has undertaken the ambitious project of modelling experiences of reduced or minimal phenomenal content along a set of six specific constraints: wakefulness, low complexity, self-luminosity, introspective availability, epistemicity, and transparency/opacity.¹³

Metzinger regards this theoretical strategy as one way to settle the debate about whether phenomenality has a distinct experiential character, whether this character is *sui generis*, and whether, if we accept any subset of these constraints, an MPE would be the sort that would not instantiate any subjective intentional properties. For instance, the epistemicity constraint (which Metzinger defines as the phenomenal experience of knowing that is accompanied by a subjective quality of confidence) would rule out such core intuitions as the notion that consciousness necessarily implies self-consciousness. Why? Because a *feeling of knowing*, which is often associated with forms of non-conceptual intuition and insight, is not the same as *actually knowing*. The latter depends on adherence to reliable standards for evidence, rigorous and methodical reasoning, and verification criteria for ruling out factual errors.

Be that as it may, in the case of consciousness, there is more than just the phenomenal character, the what-it-is-likeness of experience. There is also its experiential dimension, subjective character, or form-ness component (Shoemaker, 1996, p. 157; Levine, 2001, p. 9; Kriegel, 2009, p. 9; Zahavi, 2014, p. 22), and the latter is not a

¹¹ Following Shoemaker (1994), I take the problem of subjective character to concern the relationship between the phenomenal and subjective dimensions of experiences and their representational content. The central issue is whether the subjective and qualitative aspects of conscious experience are reducible to kinds of narrow content or reflect more basic structural dimensions of consciousness.

¹² The phenomenal self model is designed to account for the conditions under which conscious experience manifests fundamentally as an experience of being someone (Blanke and Metzinger, 2009).

¹³ Because these are precisely the criteria that figure in reports of non-ordinary experience associated with various contemplative traditions, they could serve as useful heuristic categories in articulating a theory of MPE.

separate quale of experience, a feeling of knowing that one could be mistaken about. One can surely be mistaken about the contents of one's experience (is that smoke or mist I see in the distance?) or even about the type of experience one is having (am I perceiving or hallucinating?), but one cannot be mistaken that one is conscious. This is not a case of having immunity to error through misidentification, because it is not a case of judging oneself conscious as a result of performing some mental act such introspection or recollection.¹⁴ Since conscious states are simply those that we are aware of being in, mistaking oneself to be conscious would require the thing one is mistaken about, being conscious or self-aware, to be other than it seems. Illusionists about consciousness (e.g. Dennett, 1993; 2013) sometimes make this move, as do externalists about mental content (e.g. Dretske, 2003; Tye, 1995). The trouble with illusionism is that 'such illusion is already and necessarily an actual instance of the thing said to be an illusion' (Strawson, 2018, p. 132).

Consider the rubber hand illusion experiment (Botvinick and Cohen, 1998). In the experiment, a lifelike rubber hand is positioned in front of the participant while their own hand is hidden from view, following which the experimenter gently strokes both hands with a paintbrush simultaneously. After a few moments, patients report that the rubber hand feels as if it is theirs. If something is done to the rubber hand (pricking it with a knife or hitting it with a hammer), subjects show a strong pain reaction. One may well tell subjects in the experiment that they can't possibly experience any pain, that the pain is illusory, because their actual hand suffered no damage. But misattributions or misperceptions of pain *are* already instances of pain. Indeed, as some studies of the rubber hand illusion suggest, physical threat to the rubber hand can evoke comparable cortical startle responses as the threat to the real hand (Ehrsson *et al.*, 2007; Gentile *et al.*, 2013; Fang *et al.*, 2019).

That the two hands in the rubber hand illusion are experienced as similar makes clear that one cannot be mistaken about the subjective givenness of experience. Even if the illusion can mislocate the pain away from the actual hand to the rubber hand, resulting in a partial disruption of the sense of body ownership, the pain is still first-

¹⁴ For a review of debate on the various sources (e.g. introspection, memory, perception, bodily awareness) that ground immunity to error through misidentification, see Prosser and Recanati (2012) and contributions therein.

personally given. The illusoriness pertains to the location of the pain not to its mode of givenness. As Gallagher and Zahavi (2023, §1) clarify:

This for-me-ness doesn't refer to a specific experiential quality like sour or soft, rather it refers to the distinct first-personal givenness of experience. It refers to the fact that the experiences I am living through are given differently (but not necessarily better) to me than to anybody else... It could consequently be claimed that anybody who denies the for-me-ness of experience simply fails to recognize an essential constitutive aspect of experience. Such a denial... would entail the view that my own mind is either not given to me at all — I would be mind- or self-blind — or is presented to me in exactly the same way as the minds of others.

Metzinger (2024, p. 65) acknowledges that many if not most philosophers 'have a deep-seated philosophical intuition that consciousness without self-consciousness is simply inconceivable'. Nonetheless, he urges (following Dennett, 1991, p. 401) that we 'resist the temptation to mistake a failure of imagination for an insight into necessity: From the fact that one cannot imagine being in a state of consciousness entirely lacking self-consciousness, it does not follow that it is nomologically (or even metaphysically) impossible to be in such a state' (Metzinger, 2024, p. 65). Indeed, he goes so far as to suggest that 'if Advaitic and Buddhist philosophers are on the right track, then even the "knowing self" that is so certain of its own existence could be a mere appearance' (*ibid.*, p. 66).

The MPE strategy, it seems, does not merely dispute robust non-deflationary accounts of subjective character, which understand for-me-ness as a phenomenal *dimension* of consciousness, but even a deflationary account according to which for-me-ness refers merely to experiences *occurring* to or for someone. A non-deflationary account may be resisted simply on the ground that, while it is conceptually and metaphysically necessary that experiences presuppose a subject of experience, this subject need not be experientially given (Dainton, 2008, p. 242; Peacocke, 2014; compare Zahavi, 2014, p. 20).¹⁵ For instance, just because the phenomenal contents of experience require a

¹⁵ Strawson (2009, pp. 184f.) points to depersonalization experiences (Hopkins, 1880/1959) and autobiographical testimonies from well-known figures such as Iris Murdoch and A.J. Ayer about lacking such an experiential sense of oneself as evidence that not even philosophers need think of themselves as inhabiting a particular character or having an identity in order to successfully go about their daily affairs.

unifying principle that presents them as occurring for someone does not mean this someone must itself be given in experience. Searle (2005, pp. 16f.) offers precisely such an account when he argues that, just like perception requires that we postulate a point of view or perspective from which the perception becomes intelligible (even though the perspective itself is not perceived), so also conscious experience requires a structuring principle, a self to whom these experiences occur (even if the self itself does not figure in experience as an object or content of some kind). But deflationary accounts are harder to resist if what motivates them is simply avoiding the highly implausible and deeply counter-intuitive no-ownership view, which takes experiences to occur as if free-floating unowned events (Zahavi and Kriegel, 2015, p. 36).¹⁶

2.3. The asymmetry between the subjective and intentional mode of givenness

Do non-ordinary states of meditative absorption such as non-dual awareness challenge the *sui generis* view of experiential phenomenality as entailing a basic sense of phenomenal presence? Consider this summation of the attainment of a state lacking in any perceptual and cognitive content in Forman (1998, p. 185):

Usually, our minds are an enormously complex stew of thoughts, feelings, sensations, wants, snatches of song, pains, drives, daydreams and, of course, consciousness itself more or less aware of it all. To understand consciousness in itself, the obvious thing would be to clear away as much of this internal detritus and noise as possible... During meditation, one begins to slow down the thinking process, and have fewer or less intense thoughts... Thus, by reducing the intensity or compelling quality of outward perception and inward thoughts, one may come to a time of greater stillness. Ultimately one may become utterly silent inside, as though in a gap between thoughts, where one becomes completely perception- and thought-free.¹⁷

¹⁶ Chadha (2023) defends precisely such an account, drawing primarily on Vasubandhu, whom she interprets as putting forward a no-ownership account, which regards experiences as constitutive of a stream of causal relations between the appropriate causes (*viz.* the sense faculty, the object, and attention) that lack any subjective qualities or merely appear to possess such qualities as a result of deceptive forms of self-grasping.

¹⁷ Note the frequency with which pronominal and possessive pronouns (e.g. 'one') are used.

The general idea is that pure consciousness events (PCEs) are an accessible, if rare, feature of our mental life. They would ordinarily go unnoticed were it not for their valorization in contemplative practice, where they acquire normative significance in so far as they posit the possibility of a wakeful but non-intentional and subjectless consciousness. When testimonies from drug-induced and pathological forms of ego dissolution (Picard and Craig, 2009; Millière, 2017; Letheby and Gerrans, 2017) appear to corroborate those of PCE and non-dual awareness, that is taken to serve as empirical evidence for the view that subjectivity is not an irreducible dimension of conscious mental states.

But the view that states of ego dissolution and depersonalization are constitutively subjectless is controversial. Reviews of testimonial evidence from a variety of contemplative traditions (Griffiths, 1990; Forman, 1990; Matt, 1997; Droit-Volet and Dambrun, 2019; Costines, Borghardt and Wittmann, 2021) suggest that lack of intentional content does not necessarily translate into a loss of consciousness's own sense of presence, pointing to an asymmetry in the way the subjective and intentional dimensions of consciousness manifest. As the Canadian Jesuit philosopher Bernard Lonergan noted more than half a century ago, 'objects are present by being attended to but subjects are present as subjects, not by being attended to, but by attending. As the parade of objects marches by, spectators do not have to slip into the parade to become present to themselves; they have to be present to themselves for anything to be present to them' (Lonergan, 1967/1988, p. 210). Even if attending subjects were to undergo a complete 'emptying out... of all experiential content and phenomenological qualities, including concepts, thoughts, sense perception, and sensuous images' (Jones and Gellman, 2022), it does not mean that they vanish altogether; rather, they persist in a state of wakeful or intimating awareness.¹⁸

The asymmetry between the subjective and intentional dimensions of consciousness does not obviate the fact that non-ordinary and pathological states of consciousness represent a particularly fertile ground of exploration for philosophers and cognitive neuroscientists

¹⁸ Of course, on a view of consciousness as always being about something (that is, as exhibiting phenomenal intentionality (Brentano, 1973, p. 68)), objects need not be attended for consciousness to exhibit aboutness. Likewise, on a view of consciousness as constitutively reflexive, conscious states need not involve attentional capacities in order to manifest subjective intentionality (Loar, 1987).

looking to map out the structure of phenomenal consciousness and its properties (Graham and Stevens, 1994; Block, 2007; Gallagher, 2023). Rather, it simply calls into question basic assumptions about the structure of phenomenal consciousness, namely the view that subjectivity or subjective character is just another species of intentional content. The subjective dimension of consciousness is not inherently intentional, though aspects of it can be made manifest through reflection or introspection. Rather it is reflexive or self-reflexive in so far as being conscious entails being self-conscious, if only minimally, implicitly, or tacitly so.¹⁹

Apart from its reflexive or pre-reflective character, there are other features that set subjectivity apart from intentionality. O’Conaill (2019, pp. 331f.) provides a helpful list:

It is *non-voluntary*: one will be aware of whatever experience one is currently having, regardless of what one tries to do. It is *ubiquitous*: each subject is aware of each of their occurrent experiences in this way. It is *direct*: one is not aware of having an experience in virtue of being aware of anything else. It is *non-inferential*: one does not need evidence or a chain of reasons to be aware of one’s experience. It is *non-attentive*: in inner awareness one does not focus one’s attention on the experience one is having.

As should be obvious, some of these features are precisely those found in accounts of pure or non-dual awareness, which is often described as an effortless, non-conceptual, and direct mode of acquaintance with consciousness as such in its undifferentiated state. I am not disputing that non-ordinary and pathological states of pure consciousness and ego dissolution can result in a loss of spatial, temporal, agentive, and biographical content. But taking them also to lack subjectivity or form-ness (Letheby, 2020; Metzinger, 2020; Millièrè, 2020; Lindström, Kajonius and Cardeña, 2022) runs the risk of stripping conscious experience of its intrinsic feature, that is, of precisely that feature or dimension that sets conscious and non-conscious or subpersonal mental states and events apart.

¹⁹ As Frankfurt (1988, p. 161) famously clarifies: ‘An instance of exclusively primary and unreflexive consciousness would not be an instance of what we ordinarily think of as consciousness at all. For what would it be like to be conscious of something without being aware of this consciousness? It would mean having an experience with no awareness whatever of its occurrence.’ Harman (2006) likewise makes the case for self-reflexive thought on the ground that thought could have propositional content that involves the thought itself or that is presented in a perspectival way.

3. Pathologies of the Body Schema and the Anonymity Objection

The idea of a minimal phenomenal experience as if *for no one* raises the question: how is such phenomenal experience (and its neural markers) to be differentiated from *unconscious* mental states? One might object that the notion of a subjectless experience is conceptually incoherent because ‘experiencing is necessarily an experiencing by a subject of experience’ (Shoemaker, 1986, p. 10). This experiencer need not be more than a thin subject, a mere acknowledgment that experiences present themselves differently to the individual undergoing them than to anybody else, that they present themselves ‘minely’ or as exhibiting mineness or a for-me-ness character (Kriegel, 2009, p. 1; Zahavi, 2014, p. 22).²⁰ At a minimum consciousness necessarily entails sentience, and sentience — the capacity to process basic sensory information — is constitutively self-presenting: it makes the character of those sensations and feelings present to the organism undergoing them.

Pathologies such as asomatognosia (loss of recognition or awareness of part of the body) and somatoparaphrenia (disownership of left-sided body parts) are often cited as evidence against the persistence of subjectivity. But these deficits are still *experienced* or *lived through* for *someone* (Sass and Parnas, 2003; Sass *et al.*, 2018; Ciaunica, Charlton and Farmer, 2021; Ciaunica *et al.*, 2022). Rather, loss of recognition of part of a body in asomatognosia represents a failure of recognition or acknowledgment, typically expressed as a pattern of neglect. For the hemispheric neglect patient, there being nothing to the left of the midline of her body is *subjectively experienced*: there is something it is like to sense the absence of half of one’s body (Critchley, 1953, p. 237; Saetta *et al.*, 2021). When looking at the missing side of their body and seeing it, patients in this condition may

²⁰ Most philosophers (Strawson, 1999; Zahavi and Parnas, 1998; Levine, 2001; Kriegel, 2009; Block, 2007; Zahavi and Kriegel, 2015) use mineness, for-me-ness, me-ness, or me-ishness more or less interchangeably for the subjective character of experience. Recently, Guillot (2017) has argued that these terms are not equivalent and that they designate different properties of experience (e.g. ownership, subjective character, phenomenal self-consciousness). See also Garcia-Carpintero and Guillot (2023) and contributions therein.

convince themselves that *its* presence is illusory, but the illusoriness is already an instance of the thing experienced as absent (Carp, 1952).²¹

This phenomenal difference is particularly apparent in the case of various forms of anosognosia (Babinski, 1914), a condition characterized by loss of awareness of deficits such as aphasia, blindness, and hemianopia, or spatial neglect. Patients in this condition may be unaware that they have these deficits, although in milder instances such as anosodiaphoria patients do acknowledge their deficit but remain indifferent about its effects on their optimal cognitive function (Bisiach and Geminiani, 1991). While the causes of these deficits are still under investigation, recent studies attribute anosognosia to a general inability to update bodily awareness in ways that account for salient somatosensory and interoceptive information about the affected body parts (Pereira *et al.*, 2010; Vocat, Saj and Vuilleumier, 2012; Besharati *et al.*, 2014; Fotopoulou, 2015). If this failure to update one's beliefs about the body is not responsive to various forms of higher-order knowledge or social feedback, then the deficit (say partial blindness or a paralysed body part) must reflect a *phenomenal difference* between the objective or perceived aspects of the body and its experiential givenness.²²

The same can be said about schizophrenic thought insertion: when patients report that certain thoughts are not theirs, that they are generated by someone else, they are not indicating that the thoughts in question are present as if in some nondescript location or in someone else's head, as in alleged cases of telepathic awareness (Coliva, 2002, p. 30). Rather, that such thoughts feel alien and intrusive is a function of their occurrence within the patient's own stream of consciousness (Parnas and Sass, 2011; Gallagher, 2000, p. 231), not, as some have argued, of the patient's lack of ownership over such thoughts (Campbell, 1999, p. 610; 2002, p. 37). Indeed, to deny that thought

²¹ Such patients fail to recognize the condition when looking at their paralysed body part but do recognize it when confronted with mirror images of their body (Jenkinson *et al.*, 2013; Besharati *et al.*, 2014).

²² This phenomenal difference recalls the distinction between a conception of the body as a kind of objectified, socially perceived, and impersonal object and that of the body as the locus of all subjective experience (*cf.* Sartre, 1943, p. 36; Merleau-Ponty, 1945/2002, pp. 152–3). Zahavi (1994) has argued that this difference was already present in Husserl's work, specifically in his detailed analysis of the constitutive function of the body, which functions not merely as a centre of orientation, but as a mediating factor in active tasks of perceiving such that the appearance of objects is continuous with, rather than separate from, the body's kinaesthesia.

insertion has this occurrent for-me-ness is to call into question the patient's complaint.

4. Self-Intimation, Access, and the Reflexivity Thesis

Further objections to the assumption that subjectivity or subjective character vanishes in certain liminal states of consciousness will be discussed in detail below (§4). For now, let me consider some methodological constraints that come up in discussions of how the phenomenal properties of a conscious experience relate to its contents. Whereas the dominant assumption is that phenomenal properties vary with representational content, some have argued that we ought to admit some phenomenal properties that remain fixed. In dissociating between content and attitude-based based phenomenality, Kriegel (2023) argues that whereas the first vary with the representational properties of such content, the latter do not. Many attitudinal properties of our mental life, whether of the cognitive (judging, supposing), conative (desiring, craving), affective (fearing, hating), or perceptual (seeing, hearing) kind, do not vary with the content properties of consciousness. There is no variance in the attitudinal character of my judging electric vehicles to be better than gas-powered cars for reducing carbon emissions than judging gas-powered vehicles to be better than electric vehicles for winter driving conditions. Likewise, there is no variance in attitudinal character of *fearing* wildfires versus hurricanes.

But the position that takes phenomenal character to be a species of representational content faces certain limitations. For instance, it cannot satisfactorily explain the difference between the *content* of experience (what the experience is about — an object or mental state of some kind) and its *subjective properties* (how the experience itself seems like for someone), particularly if the phenomenal and content properties of the experience can come apart (Peacocke, 1983; Block, 1996; Kriegel, 2023). Representationalists about qualia (Dretske, 1995; Tye, 1995; 2000; Byrne, 2001) claim that, yes, there is a way to explain the difference: the phenomenal character of experience *just is* how the experience represents itself in relation to its content. But the locutionary force of *just is* leaves unexplained why there is a *phenom-*

enal difference between the two kinds of content (that of the object and that of the experience itself).²³

Fine-grained analyses of conscious states are predicated on our ability to access them, but also, and more importantly, on whatever it is that makes such access possible. There are at least four main candidates: (i) access via *representation* by suitably higher-order states, as proposed by higher-order thought (HOT) theories (Lycan, 1996; Rosenthal, 1986; 2004; Gennaro, 2005); (ii) access in terms of the availability of phenomenal content (in *access* consciousness) to the executive systems of reasoning and behaviour (Block, 1995); (iii) access via a *self-representational* inwardly directed function of consciousness (Williford, 2006; Kriegel, 2009); (iv) access in terms of the constitutively *reflexive* or *self-reflexive* dimension of consciousness itself (Sartre, 1943; Zahavi, 2005; Strawson, 2003; 2017).

Since the first three candidates articulate a relational (that is, *higher-order*, *access-mediated*, or *self-representational*) conception of subjectivity, they are in principle compatible with the view that subjectivity or subjective character could vanish in certain conscious states if the feature or relation that made the state conscious were different than that which gives its distinctive phenomenal character. On a view of consciousness as constitutively reflexive, that possibility is ruled out. So, we are left with two options: subjectless consciousness is possible, in which case consciousness lacks a reflexive dimension; or consciousness is constitutively reflexive, which entails that subjectless conscious states are metaphysically impossible. Of course, showing that the evidence for subjectless consciousness is inconclusive does not automatically establish the reflexivity thesis. One must still make the case for why taking consciousness to possess such a dimension can help bridge the gap between function and phenomenality.

In motivating the reflexivity thesis, let me offer the following operational definition of what I call *reflexive presence* (RP):

²³ This is sometimes articulated as the ‘phenomenal intentionality view’ (Horgan and Tienson, 2002; Loar, 2003), namely the view that the aboutness of content is grounded in the subjective or phenomenally conscious character of certain mental states. As Searle (1983, pp. 49, 90) argued some time ago, in order to understand how the intentional content of an experience can play a functional role (i.e. serve as a success condition) in how an individual reacts to what her experience is about, one must take intentional content to be self-referential. Denying that there is such a phenomenal difference between the two types of content would make it impossible to differentiate between an experience and what it is about.

Reflexive Presence (RP): a dimension of consciousness that is world situated, modally integrated, and temporally unified.

In the multidisciplinary literature on consciousness, reflexivity is often categorized as a feature or phenomenological invariant (alongside intentionality, subjectivity, accessibility), the presence of which allows for dissociating conscious from unconscious mental states (Metzinger, 2003; Williford *et al.*, 2018). Modelling RP as a fundamental dimension of conscious experience is meant to help us account for subjectivity, for-me-ness, and self-consciousness in ways that do not regard them as constructs resulting from the integration and binding of information across multiple sensory modalities and cognitive domains. As a hybrid concept, RP combines two concepts:

- *Presence* — the manifest character of appearances as such, as captured by our adverbial vocabulary (here, now, directly, immediately, palpably, distinctly, etc.).
- *Reflexivity* — the recursive character of conscious experiences as always referring to themselves or as locating themselves in a space of possibility, though this perspectival stance need not be fixed or spatio-temporally defined.

The concept of RP proposed here aims to subtract both from that of ‘minimal phenomenal selfhood’ (MPS) and from that of ‘minimal phenomenal experience’ (MPE) to capture a constitutive dimension of consciousness. The guiding question in the case of the MPE model is whether the integration of multisensory content is sufficient for perspectival content.²⁴ In the case of the constitutive model, the main concern is the structure of consciousness itself: what is necessarily constitutive of a conscious mental state exhibiting the ‘dative of manifestation’ — the presence of conscious experience as an experience *for* (or given *to*) someone (Prufer, 1975)? A satisfactory answer to this question must consider whether the reflexive dimension is built up from more basic proprioceptive, interoceptive, and sensorimotor content (Allen and Tsakiris, 2018), or from modes of presentation of, and concepts about, such content (sense of location, movement, duration,

²⁴ Ludlow (2019, pp. 11, 182), for instance, argues that perspectival (or what some call indexical) content, which can be understood as what it means to be embedded in a place and time such that objects and events are *for me*, is an ineliminable and ubiquitous dimension of perception, action, affective and behavioural response. See also Kapitan (1999).

action, hunger, heart rate, etc.), which calls attention to the relation between perceptual content and perceptual phenomenology.²⁵ Efforts to address a similar question, centred on explaining how consciousness could regain its manifest character following the attenuation or even cessation of all conscious cognitive functions, form an important chapter in the development of Buddhist philosophy of mind. A key debate in this tradition led to some important conceptual innovations that, as I will argue in the next section, bolster the central argument of this paper.

5. Consciousness, Reflexivity, and the Emergence from Cessation

The question of the character of pure or non-dual states of consciousness is not only a question about their presumed opacity or lack of phenomenal content. Rather, it is also a question about whether, once attained, such states also lack any kind of givenness or for-me-ness. The second question addresses the concern that without the specification of their mode of givenness there would be no way to mark such conscious states as being *for* someone or as occurring in any given mental stream. On some readings of the Buddhist account of non-dual awareness meditation, consciousness is most basically taken to be a sort of ‘empty self-presencing or reflexivity that is irreducible to the usual structures of our ordinary conception of experience’ (Dreyfus, 2011, p. 122). This intransitive and non-objectifying reflexive self-consciousness is analogous to the pre-reflective self-awareness that Zahavi (2005; 2011; 2014) and Strawson (2009; 2011), among others, regard as an ineliminable dimension of consciousness.

Buddhist Abhidharma traditions frame their account of mental states and their contents without marking their subjective or ownership properties, that is, without presupposing that they belong to, are grounded in, or are realized by anything other than the causal relations upon which they supervene. But while they reject a notion of the self or subject as an enduring and unifying principle of experience, Buddhists nonetheless must answer questions about the seeming unity of conscious experience and its subjective aspect, most clearly

²⁵ The view that such a necessary relation exists between, say, perceptual content and perceptual phenomenology is known as intentionalism (Byrne, 2001; Siewert, 2004; Speaks, 2009), which is often conceived in opposition to the transparency thesis (Moore, 1903; Harman, 1990; Metzinger, 2003).

manifest in its volitional, dispositional, and deliberating activities, and in the phenomenal character of sensations, feelings, emotions, dispositions, and thoughts. Their answers, however, favour abductive reasoning over phenomenological analysis, typically involving inferences from causal explanation to claims about actual and possible experience.

An area where the emphasis on causal explanation is particularly pertinent is in debates about what accounts for the emergence of consciousness from advanced states of meditative attainment, specifically those associated with the cessation of seemingly all conscious mental activity (*nirodha-sāmapatti*).²⁶ One such debate, between philosophers associated with three prominent schools, the Vaibhāṣika, Sautrāntika, and Yogācāra, is instructive in the way it conceptualizes the problem of the relation between conscious, unconscious, and non-conceptual mental states.²⁷ The debate centres on the idea that a person in an advanced state of meditative absorption, who is outwardly or behaviourally akin to a just-deceased person due to lack of responsiveness to external stimuli, nonetheless may be experiencing subtle states of extraordinary mental clarity.

Canonical Buddhist sources explain the difference between the two in terms of physical function:

Friend, in the case of one who is dead, who has completed his time, his bodily formations..., his verbal formations..., his mental formations have ceased and subsided, his vitality is exhausted, his heat has been dissipated, and his faculty are fully broken up. In the case of a monk who has who has entered upon the cessation of perception and feeling,

²⁶ Early Buddhist philosophers, most notably Buddhaghosa (fl. fifth century CE) and Dharmapāla (530–561 CE), it seems, took only marginal interest in the significance of these liminal states. Things take a different turn with the development of the Sarvāstivāda canon. Concerned with accommodating every possible entity or existent, actual or potential, Vaibhāṣika thinkers such as Ghoṣaka (fl. second century CE) and Dharmasī (fl. second century CE) give the attainment of cessation a more prominent role, specifically one that advances a sophisticated account of mental causation. Lastly, given its specific metaphysics of mind, Yogācāra, as developed by Asaṅga (fl. fourth century CE) and Vasubandhu (c. 316–396 CE), comes to categorize cessation under various analyses of the function and role of subliminal consciousness (*ālayavijñāna*). See Griffiths (1986, chapters 1–3), Cox (1995, chapter 17), and Schmithausen (1987/2007).

²⁷ The analysis that follows draws extensively from Griffiths' (1986) comprehensive study of the principal figures and sources in this debate. See also Schmithausen (1987/2007) and Waldron (2003) for detailed analyses of the genealogy and scope of *ālayavijñāna*, and its role in debates about the unity of consciousness.

his bodily... verbal... and mental formations have ceased and subsided, but his vitality is not exhausted, his heat has not been dissipated, and his faculties become exceptionally clear. (Ñāṇamoli and Bodhi, 1995, pp. 393ff.)

The only physical or physiological marker by means of which the two individuals can be told apart is vitality, understood specifically in terms of the warmth of the body. But the claim is that such advanced states exhibit exceptional clarity of mind. And the question of what precisely this ‘exceptional clarity’ entails or even if such states retain any trace of consciousness is a matter of dispute. According to one view, the attainment of cessation is marked not only by loss of all sensory and mental activity but also by loss of conscious awareness: the main point of these altered states is that there can be no experience while they endure. They are akin to a coma-like state lacking any trace of cognitive activity (Sharf, 2014, pp. 136, 143). But that raises the question of how, given the presumed cessation of all such mental activity, it is possible to emerge from such states fully conscious with one’s memories and discerning faculties intact?

The cessation of all mental activity (*nirodha-sāmapatti*) is said to bring all traces of consciousness to a halt.²⁸ Elsewhere I have argued that this interpretation faces certain difficulties, and that this condition may be better understood as a state of cognitive attenuation, characterized by the absence of both goal-directed and spontaneous thought (Coseru, 2022).²⁹ Gallagher (2023) likewise observes that reports of self-less experience and even full absorption may be interpreted as lacking the structural features of a self-pattern (roughly corresponding to the five aggregates model of personal identity). But he concurs that the possibility of reporting on such states suggests that ‘there is always some degree of pre-reflective self-awareness with some degree of implicit mineness and affectivity in such... processes’ and that they are ‘never mindless’ (Gallagher, 2023, p. 237).

²⁸ For modern efforts to operationalize *nirodha-sāmapatti* for scientific research, see Laukkonen *et al.* (2023). Yang *et al.* (2024) provide a detailed analysis of the effects of deep absorptive meditative states (*jhanas*) in the vicinity of *nirodha-sāmapatti* that show tight deconstructive correlations between these states and the brainstem-thalamic pathways associated with maintaining a unified conscious space and unified conscious self.

²⁹ I take spontaneous thought in the sense used by Cristoff *et al.* (2016) to refer to mental states that arise relatively freely when various external or internal constraints on thought are absent or minimal (as in dreaming).

Indeed, the requirement that the last mind moment before cessation and the first mind moment following emergence from cessation are experienced as belonging to the same causal series means that conscious mental states must always retain a dimension that is intrinsic to them, that does not depend on the presence of any intentional or conceptual content. Such a dimension would be necessary if we are to explain how cessation itself could be recognized as having even *occurred*, let alone occurred *for* someone.

One possible justification for why certain Buddhist thinkers (e.g. Dignāga, Dharmakīrti) adopted the idea that consciousness is self-intimating or reflexive (*svasaṃvitti*, *svasaṃvedana*)³⁰ is that luminosity or reflexivity can better explain how it is possible for a mental state to become self-conscious in a single moment, given metaphysical commitment to the principle of momentariness. If it takes two mind moments, that is, on a two-state model involving one mind moment taking another as its intentional object or co-occurring with it (as per HOT theory), self-awareness could never be achieved (because the previous mind moments would have already vanished by the time the new one arises). Space limitations prevent me from addressing the implications of this debate (for more, see Yao, 2005, and Coseru, 2020). Suffice it to say that while Buddhists may not in the end have satisfactorily addressed the problem of the synchronic and diachronic unity of consciousness, they — that is, Dignāga, Dharmakīrti, and their followers — did provide robust arguments for reflexivity (Ganeri, 1999; Kellner, 2011; Thompson, 2011; Kriegel, 2018).

³⁰ The key Sanskrit technical term is *svasaṃvitti*, *svasaṃvedana*. The secondary literature on this important concept of consciousness is extensive. Various translations include 'reflexive awareness' (Williams, 1998; Yao, 2005), 'self-cognition' (Dreyfus, 1997), 'apperception' (Arnold, 2005), 'self-awareness' (MacKenzie, 2007; Kellner, 2010; 2011), 'self-reflexive awareness' (Ganeri, 2012), 'reflexive self-awareness' (Coseru, 2012), 'self-illuminating consciousness' (Finnegan, 2018), the notion of *svasaṃvitti* (and, the related term, *svasaṃvedana*) is meant to address the problem of how conscious cognitive episodes themselves are made known. There is also some debate about whether *svasaṃvitti* stands for a 'formal and invariant structure of consciousness' that simply illuminates the cognitive process without itself displaying any of the dual-aspect characteristics of this process or for the distinctive experiential phenomenality or form-ness of experience (Coseru, 2015).

5.1. What ceases for whom?

On the question of whether the attainment of cessation is an unconscious (or mindless)³¹ state or retains some traces of conscious activity, we can discern three positions:

‘[T]he Vaibhāṣikas and others attribute mindlessness to the attainment of cessation and unconsciousness together with the state of unconsciousness; the elder Vasumitra and others say that these attainments possess mind — an unmanifest thinking consciousness; the Yogācārins, among others, say that these attainments possess mind — the storehouse consciousness.’ (Yaśomitra, *Commentary on the Treasury of Meta-physics*, AKV 245.21–23, quoted in Griffiths, 1986, p. 60)

Consider the first view, which asserts that the attainment of cessation is marked by a complete loss of consciousness. In this case, the question concerns whether the complete cessation of all mental activity can be coherently explained given, first, commitment to the view that there are no spontaneous or uncaused events, and second, the recognition that cognitive activity can resume following its complete cessation. The Buddhist Abhidharma view of mental and physical phenomena as causally interdependent events entails that mental and physical events are part of a continuum of causal relations. Complex events such as perceptual cognitions, which depend on both mental events (i.e. *sensing*) and physical events (i.e. *sensibles* or the objects and situations that are sensed) are both the effect of a cause and the cause of a subsequent effect.³² How, in that case, could cognitive activity, as a manifestation of the causal interrelation between mental and physical events, cease without at the same time bringing about the cessation of corresponding physical events? That is, how could perceptual awareness lose all its content while perceiving and objects perceived are still causally coupled?

The phenomenon of blindsight provides an interesting case study for perception without consciousness or with a degraded form of consciousness (in keeping with the two models for understanding the underlying mechanisms of blindsight — Derrien *et al.*, 2022). But the

³¹ Given that the technical Sanskrit concept of *citta* designates both ‘mind’ and ‘consciousness’, the adjectival form *acittaka* (lit. ‘mindless’) can be variously interpreted to mean ‘without thought’, ‘unconscious’, or ‘unintentional’.

³² The exception here is the attainment of complete cessation (or *nirvāṇa*), in which a mental event occurs as the effect of an immediately antecedent and similar condition but does not itself cause a subsequent effect.

behaviour of blindsight patients still reflects a dependency of the task (e.g. pointing, navigating) on how far the pathways for visual information processing remain functional. Being able to discriminate objects without any visual awareness, regardless of whether such instances of blindsight are accompanied by subjective phenomenological reports (i.e. the sense of feeling the presence of an object in a particular region of the visual field without seeing it), suggests that the causal coupling of perception and object perceived remains intact; only the resultant cognitive awareness is affected.

5.2. The persistence problem and the character of emergent consciousness

According to one theory (defended by the Vaibhāṣika), for a mental event of a particular kind to occur it must be preceded by an immediately antecedent and similar condition in the relevant mental stream: thus, for a moment of consciousness to occur, there must be an immediately antecedent and similar condition, namely a previous moment of consciousness of some kind (visual, auditory, etc.). This view has the following implications: *first*, if a moment of consciousness does occur following the attainment of cessation, then it must have an immediately antecedent and similar condition; *second*, given its occurrence after cessation, this condition could not have been contiguous because cessation permits no mental events while it endures; and *third*, as entailed by these two positions, it follows that *temporally* distant conditions somehow retain their causal powers. The general implication is that, if we are to explain how a long past conscious mental event could serve as the immediately antecedent and similar condition for the emergence of consciousness from the attainment of cessation, then these uniquely occurrent events must enjoy some continued existence (that is, they must persist).

Rejecting this basic metaphysical appeal to persistence or the continued existence of past events opens the door for another theory (pro- posed by the Sautrāntikas), where an altogether different solution to the problem of the emergence of consciousness following the attain- ment of cessation is proposed. According to this theory, the emergence of consciousness has as the immediately antecedent and similar condition only the body with its intact or functioning senses. The idea is that, ordinarily, mind and body or mental and physical events are mutually co-constituted or, to use the familiar Abhidharma trope of seeding, are ‘mutually seeding one another’: physical events

can plant seeds in the stream of mental events, which in turn can plant their seeds in the stream of physical events — an image that suggests the events in question can have indirect or latent causal powers. Because the seeds can lie dormant until the proper condition for their maturation occurs, that is said to explain how an occurring event could have as its immediately antecedent and present condition seeds that were distantly planted. But that still leaves open the question of how a dissimilar condition — in this case, the body with its senses — can serve as a cause for the emergence of consciousness.

It seems that while both theories are constrained by their metaphysical commitments to the idea that the emergence of consciousness from the attainment of cessation must have an immediately antecedent and similar cause, neither offers an adequate account for how this emergence could occur that avoids the problem of the persistence of past events or of the capacity of dissimilar events — (a) the body with its senses (even if ‘seeded’) and (b) consciousness — to stand in any kind of causal relation. The inadequacy of both theories informs subsequent debates regarding the possibility that consciousness may well be present in some liminal form following the attainment of cessation. Should it be possible for consciousness to emerge following the attainment of cessation, then the state of cessation cannot be entirely mindless (a position associated with Vasumitra). But consciousness on the Buddhist account is part of a chain of causal relations involving contact, which further conditions the arising of sensation, conception, and volition, etc. Hence, if consciousness were to persist following the attainment of cessation, so would mental events that are conditioned by its presence (Ghoṣaka’s position). This position would then call into question not only the possibility of a temporary suspension of all mental events, but the goal of Buddhist practice itself: the attainment of *nirvāṇa*, understood as the complete cessation of the functioning of the psychophysical aggregates that make up a person.

The need for advancing the debate without compromising on this core tenet of Buddhist metaphysics explains, at least in part, why understanding the character and function of consciousness becomes a dominant concern for Buddhist philosophy of mind, especially with the rise of Yogācāra. Consciousness as cognitive awareness (*viññāna*) plays an essential role in discerning patterns of continuity and regularity in the variety of mental content. If emergence from the attainment of cessation brings with it the recognition that it occurred *for this individual or in this mental stream*, then consciousness holds

the key and cannot be eliminated from an explanatory account of the causal relation between the last mind moment prior to the attainment of cessation and the first mind moment following emergence from cessation.

One solution comes from Vasubandhu, who introduces an important distinction between two dimensions of conscious mental activity:

- (a) as the *repository* of all seeds or traces of cognitive activity and
- (b) as a *cluster of intentional* mental states bearing on the variety of mental content and function.

There are two kinds of mind: one that accumulates many ‘seeds’; another that is multiple in virtue of its varieties of different objects and modes [of functioning]. [The attainment of cessation] is called ‘mindless’ because it lacks these states of absorption, just as a seat with only one leg is said to be without legs. (Pruden, 1988, p. 64)

The distinction aims to clarify what one of the protagonists in the debate (Vasumitra) means when he attributes the type of mental events that continue following the attainment of cessation to the presence of an ‘unmanifest thinking consciousness’ (*aparispṛuṭamanovijnana*). The general idea is that while the receptive (*read* representational) aspect of conscious episodes allows cognitive activity to leave traces (we can only recall and deliberate about things that we are or were conscious about) is not lost in cessation, the variety of mental content can be eliminated. What we may have here is ‘a consciousness with no intentional object, a consciousness that does nothing but provide a continuing mental “something” which ultimately will act as cause for the re-emergence of mental events (active consciousness, consciousnesses with intentional objects) from the attainment of cessation’ (Griffiths, 1986, p. 68).

It is largely in response to needing to account for the persistence of this mental ‘something’ that Yogācāra introduced the concept of a storehouse or latent consciousness (*ālaya-vijñāna*).³³ Concerned primarily with the continuity issues discussed above, the idea of latent consciousness is also meant to address the problem of self-intimation, of what gives conscious states their distinctive subjective aspect that marks them as occurring for this mental stream rather than another.

Indeed, the direction of development in Yogācāra efforts to account for both psychological continuity and individuation suggests a

³³ At least according to Schmithausen (1987/2007) and Griffiths (1986). For a different perspective, see Buescher (2008).

conception of latent consciousness as the persisting basis or ground for phenomenal unity, which explains why non-Buddhist and even some Buddhist opponents thought that Yogācāra had re-imported into Buddhism the old concept of a substantive self (*ātman*). In the end, it is not the postulation of a latent consciousness that brought Buddhists closer to addressing the problem of persistence, of the sense that conscious episodes are phenomenally unified in view of their occurrent for-me-ness, but the need to explain self-awareness, that is, how mental states can become aware of themselves without a self or subject as the agent or owner of such states.

For some Buddhists (e.g. Dignāga, Dharmakīrti, Śāntarakṣita), the answer comes in the form of a property that conscious mental states possess by virtue of being conscious: reflexivity (*svasaṃvitti*) understood as an inner or self-intimating dimension of awareness.³⁴ Other Buddhists (e.g. Candrakīrti) disagree, arguing that attributing to conscious mental states any intrinsic features violates the causal principle of co-dependent arising (*pratītiya-samutpāda*), which stipulates that all entities acquire their properties only as a result of standing in particular kinds of relations to other entities. Part of the problem with this other view (as with actualist HOT theories) is that it is not clear how a relation to an object or event of some kind can furnish conscious states not only with their representational contents but also with their intrinsic phenomenal properties. As Dignāga famously puts it, ‘if the apprehension of the object had only the form of the object, or if it had only the form of itself, then self-cognition would be indistinguishable from object-cognition’ (Hattori, 1968, p. 30). That is, without self-intimation it would be impossible to distinguish between the subjective and intentional modes of givenness that provide experiences their phenomenal unity and lived through character.

³⁴ For a debate about the historical scope of reflexive awareness (*svasaṃvitti*, *svasaṃvedana*), see Arnold (2010), Kobayashi (2010), Moriyama (2010), and Watson (2010). Much of the debate concerns whether *svasaṃvitti* refers to a distinct form of introspective awareness (lit. ‘mental perception’ (*mānasa-pratyakṣa*) or ‘mental consciousness’ (*manovijñāna*)) or to a dimension of all conscious mental states that marks their epistemicity, which is in keeping with a particular understanding of cognition in terms of what it delivers, of its ‘fruit’ (*pramāṇaphala*) or result. In this case, the reflexivity of awareness may be taken to function as a principle for individuating cognitions not only in terms of their intentional content but also of their phenomenal character.

5.3. Cessation and the minimally conscious post-comatose patient

The Buddhist solution to the problem of the emergence of consciousness following the attainment of cessation outlined above illustrates the difficulty relational conceptions of consciousness face when having to account for the experiential character of pure or non-dual states of awareness. As such it may also be of some relevance to current debates about whether post-comatose minimally conscious patients are merely wakeful or also self-aware, if only minimally so. A post-comatose patient may find herself in a state of unresponsive wakefulness or in a minimally conscious state (MCS); occasionally, as in the case of locked-in syndrome (LIS), patients may regain the full range of cognitive activity save for the capacity for motor response. Unlike disruptions of the body-schema or of temporal flow of experience, these disorders of consciousness (much like the attainment of cessation) are global because they result in an alteration of the subject's overall subjective consciousness. Global disorders also raise questions for the problem of the unity of consciousness, specifically about whether the unity of phenomenal consciousness depends on a particular conception of the subject of experience (Bayne, 2010) or on something more fundamental.

Recognizing unambiguous signs of minimal subjective awareness in post-comatose patients is a difficult task since criteria for the ascription of consciousness to these states depends not only on more easily tractable behavioural responses, but also, and more importantly, on specifying the phenomenal character of the states in question. Neuroimaging and electroencephalographic (EEG) data over the past two decades suggest that many patients typically diagnosed as vegetative state (VS) inhabit a state of diminished or dimmed consciousness characterized by confusion and disorientation (Boly *et al.*, 2007; Laureys and Schiff, 2012; Monti, Laureys and Owen, 2010; Owen *et al.*, 2006; Owen, Schiff and Laureys, 2009; Schiff, Giacino and Fins, 2009). Whether the confusion pertains only to the phenomenal content of the mental state in question or also to their subjective character remains an open question. Picolas (2020) has recently argued that most studies of minimally conscious patients in clinical neuroscience target *reflective* rather than the *pre-reflective* self-awareness, since the behavioural diagnostic tools used to mark patients as minimally conscious involve monitoring sensorimotor and

verbal cues.³⁵ But patients may transit from the vegetative coma to a minimal form of awareness before they show responsiveness to behavioural tasks, which suggests that awake but unresponsive patients, typically categorized as minimally conscious but not self-aware, may in effect be reflexively self-aware. This possibility calls into question claims about the radical disruption of self-awareness to the point of complete loss of even the most minimal sense of self-intimation in these pathological states.

1. Conclusion

I have argued that part of the problem with the view that the subjective dimension of experience vanishes in states of pure or non-dual consciousness lies in overdetermined conceptions of phenomenal content as prone to dualistic distortions. One assumption that underscores the idea of pure or non-dual awareness is that the subject–object structure of experience is not a constitutive feature of our cognitive architecture. Testimonial evidence about disruptions of this structure in meditative practice, drug-induced ego dissolution, and various pathologies of bodily self-awareness informs the view that consciousness in its natural state is ultimately undifferentiated, and therefore that the subject–object duality manifest in ordinary experience must be illusory (Dunne, 2011). I have argued that the very notion of non-dual awareness is problematic and requires clarification.³⁶ First, despite general agreement that a level of consciousness characterized as ‘non-dual’ or ‘pure’ cannot be easily operationalized in cognitive neuroscience, if at all, it is often claimed that consciousness at this level must, as a matter of principle, lack phenomenal content (Josipovic, 2010; 2014; Travis and Shear, 2010; Josipovic and Miskovic, 2020). Second, the notion of ‘phenomenal content’ itself

³⁵ Likewise, the LIS condition is challenging for taxonomies of conscious mental states that associate being conscious with various behavioural markers, such as, for instance, the ability to enact various sensorimotor contingencies (O’Regan and Noë, 2001).

³⁶ Arguments against the conceptual coherence of non-dual consciousness were advanced primarily by Madhyamaka (‘Middle Way’) philosophers, on the ground that as a simple, undifferentiated state, non-dual awareness would lack the subjective and intentional aspects that provide its content and mode of givenness (Aitken, 2023, p. 19). Note that Madhyamaka philosophers reject the reflexivity thesis (*svasamvedana*) and endorse something analogous to a relational, content externalist view, at least according to some interpreters (e.g. Garfield, 2015, pp. 161ff.).

needs some unpacking since it is often ambiguous between ‘phenomenal character’ and ‘intentional content’.

To say, then, that non-dual awareness as one paradigmatic case of minimal phenomenal experience lacks not only intentional content but also mineness or for-me-ness, on this view, is to say that there are experiences without any subjective character. On a *conservative* conception of phenomenal content, which takes the content in question to be exhausted by the phenomenal properties of the objects represented in experience, in principle there would be nothing it is like to undergo a non-dual experience. If no objects are represented, then no phenomenal properties attach to the experience in question, which on an externalist account of mental content would amount to saying that there is nothing it is like and, hence, no one while such experience endures. By contrast, on a more *liberal* view of phenomenal content, one would argue that while phenomenal properties and representational contents are closely related, they are not identical: the absence of representational content does not entail the absence of phenomenal properties, which means that even non-dual awareness would at a minimum exhibit a distinctive phenomenal character (Bayne, 2009; Kriegel, 2002; 2023).

The deflationary view of the structure of consciousness, which states that subjective character vanishes in certain meditative, drug-induced, and pathological states of consciousness, rides on a conservative conception of phenomenal content. The view assumes that while ordinary awareness exhibits self-locating representational content, ultimately that content is reducible to various components of experience such as a sense of mental and body ownership, narrative aspects of self-consciousness, and self-referential thought. On my view, the reflexivity of awareness, that dimension of awareness that makes its subjectivity manifest, is a constitutive, *sui generis* dimension of experience. When champions of the deflationary view argue that states of meditative absorption and drug-induced ego dissolution result in the transient cessation of narrative and multisensory aspects of self-consciousness, generally the claim is that even its for-me-ness or mineness vanishes. But to insist that consciousness retains its reflexive or self-intimating dimension even in states of non-dual awareness and drug-induced ego dissolution is not to associate this dimension with substantive notions of selfhood, but to avoid stripping consciousness of its subjective or experiential character.

References

- Aitken, A. (2023) A case against simple-mindedness: Śrīgupta on mental mereology, *Australasian Journal of Philosophy*, pp. 1–27. doi: [10.1080/00048402.2023.2226687](https://doi.org/10.1080/00048402.2023.2226687)
- Allen, M. & Tsakiris, M. (2018) The body as first prior: Interoceptive predictive processing and the primacy of self-models, in Tsakiris, M. & De Preester, H. (eds.) *The Interoceptive Mind: From Homeostasis to Awareness*, pp. 27–45, Oxford: Oxford University Press.
- Arnold, D. (2005) Is *svasaṃvitti* transcendental? A tentative reconstruction following śāntarakṣita, *Asian Philosophy*, **15** (1), pp. 77–111.
- Arnold, D. (2010) Self-Awareness (*svasaṃvitti*) and related doctrines of Buddhists following Dignāga: Philosophical characterizations of some of the main issues, *Journal of Indian Philosophy*, **38** (3), pp. 323–378.
- Ataria, Y., Dor-Ziderman, Y. & Berkovich-Ohana, A. (2015) How does it feel to lack a sense of boundaries? A case study of a long-term mindfulness meditator, *Consciousness and Cognition*, **37**, pp. 133–147.
- Austin, J.H. (2000) Consciousness evolves when the self dissolves, *Journal of Consciousness Studies*, **7** (11–12), pp. 209–230.
- Babinski, J. (1914) Contribution à l'étude des troubles mentaux dans l'hémiplégie organique cérébrale (anosognosie), *Revue Neurologique*, **27**, pp. 845–848.
- Bayne, T. (2004) Self-consciousness and the unity of consciousness, *The Monist*, **87** (2), pp. 219–236.
- Bayne, T. (2007) Conscious states and conscious creatures: Explanation in the scientific study of consciousness, *Philosophical Perspectives*, **21** (1), pp. 1–22.
- Bayne, T. (2009) Perception and the reach of phenomenal content, *The Philosophical Quarterly*, **29** (236), pp. 385–404.
- Bayne, T. (2010) *The Unity of Consciousness*, Oxford: Oxford University Press.
- Bayne, T. & Chalmers, D.J. (2003) What is the unity of consciousness?, in Cleeremans, A. (ed.) *The Unity of Consciousness: Binding, Integration, and Dissociation*, pp. 23–58, Oxford: Oxford University Press.
- Besharati, S., Forkel, S.J., Kopelman, M., Solms, M., Jenkinson, P.M. & Fotopoulou, A. (2014) The affective modulation of motor awareness in anosognosia for hemiplegia: Behavioural and lesion evidence, *Cortex*, **61**, pp. 127–140.
- Bickle, J. & Ellis, R. (2005) Phenomenology and cortical microstimulation, in Smith, D.W. & Thomasson, A.L. (eds.) *Phenomenology and Philosophy of Mind*, pp. 140–163, Oxford: Oxford University Press.
- Billon, A. (2017) Mineness first: Three challenges to contemporary theories of bodily self-awareness, in Alsmith, A.J.T. & de Vignemont, F. (eds.) *The Subject's Matter: Self-Consciousness and the Body*, pp. 189–216, Cambridge, MA: MIT Press.
- Billon, A. (2023) What is it like to lack mineness? Depersonalization as a probe for the scope, nature and role of mineness, in Guillot, M. & Carpintero, M.G. (eds.) *The Sense of Mineness*, Oxford: Oxford University Press.
- Billon, A. & Kriegel, U. (2015) Jasper's dilemma: The psychopathological challenge to subjectivity theories of consciousness, in Gennaro, R. (ed.) *Disturbed Consciousness*, pp. 29–54, Cambridge, MA: MIT Press.
- Bisiach, E. & Geminiani, G. (1991) Anosognosia related to hemiplegia and hemianopia, in Prigatano, G.P. & Schacter, D.L. (eds.) *Awareness of Deficit After Brain Injury*, pp. 17–52, New York: Oxford University Press.

- Blanke, O. & Metzinger, T. (2009) Full-body illusions and minimal phenomenal selfhood, *Trends in Cognitive Sciences*, **13** (1), pp. 7–13.
- Block, N. (1995) On a confusion about a function of consciousness, *Behavioral and Brain Sciences*, **18** (2) pp. 227–287. doi: [10.1017/S0140525X00038188](https://doi.org/10.1017/S0140525X00038188)
- Block, N. (1996) Mental paint and mental latex, *Philosophical Issues*, **7**, pp. 19–49.
- Block, N. (2007) Consciousness, accessibility, and the mesh between psychology and neuroscience, *Behavioral and Brain Sciences*, **30** (5), pp. 481–548.
- Boly, M., Coleman, M.R., Davis, M.H., Hampshire, A., Bor, D., Moonen, G., Maquet, P.A., Pickard, J.D., Laureys, S. & Owen, A.M. (2007) When thoughts become action: An fMRI paradigm to study volitional brain activity in non-communicative brain injured patients, *NeuroImage*, **36** (3), pp. 979–992.
- Botvinick, M. & Cohen, J. (1998) Rubber hands ‘feel’ touch that eyes see, *Nature*, **391** (6669), p. 756. doi: [10.1038/35784](https://doi.org/10.1038/35784)
- Brentano, F. (1973) *Psychology from an Empirical Standpoint*, Rancurello, A.C., Terrell, D.B. & McAlister, L. (trans.), London: Routledge.
- Buescher, H. (2008) *The Inception of Yogācāra-Vijñānavāda*, Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Byrne, A. (2001) Intentionalism defended, *Philosophical Review*, **110** (2), pp. 199–240.
- Campbell, J. (1999) Immunity to error through misidentification and the meaning of a referring term, *Philosophical Topics*, **26**, pp. 89–104.
- Campbell, J. (2002) The ownership of thoughts, *Philosophy, Psychiatry, & Psychology*, **9** (1), pp. 35–39.
- Carhart-Harris, R.L., Muthukumaraswamy, S., Roseman, L., Kaelen, M., Droog, W., Murphy, K., Tagliazucchi, E., Schenberg, E.E., Nest, T., Orban, C., Leech, R., Williams, L.T., Williams, T.M., Bolstridge, M., Sessa, B., McGonigle, J., Sereno, M.I., Nichols, D., Hellyer, P.J., Hobden, P., Evans, J., Singh, K.D., Wise, R.G., Valerie Curran, H., Feilding, A., & Nut, D.J. (2016) Neural correlates of the LSD experience revealed by multimodal neuroimaging, *Proceedings of the National Academy of Sciences USA*, **113**, pp. 4853–4858. doi: [10.1073/pnas.1518377113](https://doi.org/10.1073/pnas.1518377113)
- Carman, T. (2005) On the inescapability of phenomenology, in Smith, D.W. & Thomasson, A.L. (eds.) *Phenomenology and Philosophy of Mind*, pp. 67–89, Oxford: Oxford University Press.
- Carp, E. (1952) Troubles de l’image du corps, *Acta Neurologica et Psychiatrica Belgica*, **52**, pp. 461–475.
- Chadha, M. (2023) *Selfless Minds*, Oxford: Oxford University Press.
- Christoff, K., Irving, Z.C., Fox, K.C.R., Spreng, R.N. & Andrews-Hanna, J.R. (2016) Mind-wandering as spontaneous thought: A dynamic framework, *Nature Reviews Neuroscience*, **17**, pp. 718–731.
- Ciaunica, A., Charlton, J. & Farmer, H. (2021) When the window cracks: Transparency and the fractured self in depersonalization, *Phenomenology and the Cognitive Sciences*, **20** (1), pp. 1–19.
- Ciaunica, A., Seth, A., Limanowski, J., Hesp, C. & Friston, K.J. (2022) I overthink — therefore I am not: An active inference account of altered sense of self and agency in depersonalisation disorder, *Consciousness and Cognition*, **101** 103320. doi: [10.1016/j.concog.2022.103320](https://doi.org/10.1016/j.concog.2022.103320)
- Coliva, A. (2002) Thought insertion and immunity to error through misidentification, *Philosophy, Psychiatry, & Psychology*, **9** (1), pp. 27–34.

- Coseru, C. (2012) *Perceiving Reality: Consciousness, Intentionality, and Cognition in Buddhist Philosophy*, New York: Oxford University Press.
- Coseru, C. (2015) Perception, causally efficacious particulars, and the range of phenomenal consciousness, *Journal of Consciousness Studies*, **22** (9–10), pp. 55–82.
- Coseru, C. (2020) Whose consciousness? Reflexivity and the problem of self-knowledge, in Siderits, M., Keng, C. & Spackman, J. (eds.) *Buddhist Philosophy of Consciousness: Tradition and Dialogue*, pp. 121–153, Leiden: Brill.
- Coseru, C. (2022) Consciousness, content, and cognitive attenuation: A neurophenomenological perspective, in Repetti, R. (ed.) *Routledge Handbook on the Philosophy of Meditation*, pp. 354–367, New York: Routledge.
- Costines, C., Borghardt, T.L. & Wittman, M. (2021) The phenomenology of ‘pure’ consciousness as reported by an experienced meditator of the Tibetan Buddhist Karma Kagyu tradition. Analysis of interview content concerning different meditative states, *Philosophies*, **6**, art. 50.
- Cox, C. (1995) *Disputed Dharmas: Early Buddhist Theories on Existence*, Tokyo: International Institute for Buddhist Studies.
- Critchley, M. (1953) *The Parietal Lobes*, Oxford: Williams and Wilkins.
- Dainton, B. (2008) *The Phenomenal Self*, Oxford: Oxford University Press.
- de Vignemont, F. (2007) Habeas corpus: The sense of ownership of one’s own body, *Mind and Language*, **22** (4), pp. 427–449.
- Dennett, D. (1991) *Consciousness Explained*, Boston, MA: Little, Brown & Company.
- Dennett, D. (1993) Précis of *Consciousness Explained*, *Philosophy and Phenomenological Research*, **53**, pp. 889–892.
- Dennett, D. (2013) Philosophy that stirs the waters, *The New York Times*, 29 April, C1, [Online], <https://www.nytimes.com/2013/04/30/books/daniel-dennett-author-of-intuition-pumps-and-other-tools-for-thinking.html>.
- Derrien, D., Garric, C., Sergent, C. & Chokron, S. (2022) The nature of blindsight: Implications for current theories of consciousness, *Neuroscience of Consciousness*, **1**, niab043. doi: 10.1093/nc/niab043
- Dor-Ziderman, Y., Berkovich-Ohana, A., Glicksohn, J. & Goldstein, A. (2013) Mindfulness-induced selflessness: A MEG neurophenomenological study, *Frontiers in Human Neuroscience*, **7**, art. 582. doi: 10.3389/fnhum.2013.00582
- Dretske, F. (1995) *Naturalizing the Mind*, Cambridge, MA: MIT Press.
- Dretske, F. (2003) How do you know you are not a zombie, in Gertler, B. (ed.) *Privileged Access: Philosophical Accounts of Self-Knowledge*, pp. 1–14, Aldershot: Ashgate.
- Dreyfus, G. (1997) *Recognizing Reality: Dharmakīrti’s Philosophy and Its Tibetan Interpretations*, Albany, NY: SUNY Press.
- Dreyfus, G. (2011) Self and subjectivity: A middle way approach, in Siderits, M., Thompson, E. & Zahavi, D. (eds.) *Self, No-Self? Perspectives from Analytic, Phenomenological, and Indian Traditions*, pp. 114–156, Oxford: Oxford University Press.
- Droit-Volet, S. & Dambrun, M. (2019) Awareness of the passage of time and self-consciousness: What do meditators report?, *PsyCh Journal*, **8**, pp. 51–65.
- Dunne, J. (2011) Toward an understanding of non-dual mindfulness, *Contemporary Buddhism*, **12** (1), pp. 71–88.
- Ehrsson, H.H., Wiech, K., Weiskopf, N., Dolan, R.J. & Passingham, R.E. (2007) Threatening a rubber hand that you feel is yours elicits a cortical anxiety

- response, *Proceedings of the National Academy of Sciences USA*, **104**, pp. 9828–9833. doi: [10.1073/pnas.0610011104](https://doi.org/10.1073/pnas.0610011104)
- Fang, W., Zhang, R., Zhao, Y., Wang, L. & Zhou, Y.D. (2019) Attenuation of pain perception induced by the rubber hand illusion, *Frontiers in Neuroscience*, **13**, art. 261. doi: [10.3389/fnins.2019.00261](https://doi.org/10.3389/fnins.2019.00261)
- Fasching, W. (2020) The I: A dimensional account, *Phenomenology and the Cognitive Sciences*, **20** (2), pp. 249–260.
- Finnigan, B. (2018) Is consciousness reflexively self-aware? A Buddhist analysis, *Ratio*, **31** (4), pp. 389–401.
- Forman, R. (1990) *The Problem of Pure Consciousness: Mysticism and Philosophy*, Oxford: Oxford University Press.
- Forman, R. (1998) What does mysticism have to teach us about consciousness?, *Journal of Consciousness Studies*, **5** (2), pp. 185–201.
- Fotopoulou, A. (2015) The virtual bodily self: Mentalisation of the body as revealed in anosognosia for hemiplegia, *Consciousness and Cognition*, **33**, pp. 500–510.
- Frankfurt, H.G. (1988) *The Importance of What we Care About: Philosophical Essays*, Cambridge: Cambridge University Press.
- Frankish, K. (2016) Illusionism as a theory of consciousness, *Journal of Consciousness Studies*, **23** (11–12), pp. 11–39. Reprinted in Frankish, K. (ed.) (2017) *Illusionism as a Theory of Consciousness*, Exeter: Imprint Academic.
- Gallagher, S. (2000) Self-reference and schizophrenia: A cognitive model of immunity to error through misidentification, in Zahavi, D. (ed.) *Exploring the Self: Philosophical and Psychopathological Perspectives on Self-experience*, pp. 203–239, Amsterdam: John Benjamins.
- Gallagher, S. (2020) Mindful performance, in Pennisi, A. & Falzone, A. (eds.) *The Extended Theory of Cognitive Creativity — Interdisciplinary Approaches to Performativity*, pp. 43–58, Berlin: Springer.
- Gallagher, S. (2023) *The Self and Its Disorders*, Oxford: Oxford University Press.
- Gallagher, S. & Zahavi, D. (2023) Phenomenological approaches to self-consciousness, in Zalta, E.N. & Nodelman, U. (eds.) *The Stanford Encyclopedia of Philosophy (Winter 2023 Edition)*, [Online], <https://plato.stanford.edu/archives/win2023/entries/self-consciousness-phenomenological/>.
- Ganeri, J. (1999) Self-intimation, memory and personal identity, *Journal of Indian Philosophy*, **27**, pp. 469–483.
- Ganeri, J. (2012) *The Self: Naturalism, Consciousness, and the First-Person Stance*, Oxford: Oxford University Press.
- García-Carpintero, M. & Guillot, M. (2023) *Self-Experience: Essays on Inner Awareness*, Oxford: Oxford University Press.
- Garfield, J. (2015) *Engaging Buddhism: Why It Matters to Philosophy*, New York: Oxford University Press.
- Gennaro, R. (2005) The HOT theory of consciousness: Between a rock and a hard place, *Journal of Consciousness Studies*, **12** (2), pp. 3–21.
- Gennaro, R. (2012) *The Consciousness Paradox: Consciousness, Concepts, and Higher-Order Thoughts*, Cambridge, MA: MIT Press.
- Gentile, G., Guterstam, A., Brozzoli, C. & Ehrsson, H.H. (2013) Disintegration of multisensory signals from the real hand reduces default limb self-attribution: An fMRI study, *Journal of Neuroscience*, **33**, pp. 13350–13366. doi: [10.1523/JNEUROSCI.1363-13.2013](https://doi.org/10.1523/JNEUROSCI.1363-13.2013)

- Graham, G. & Stephens, G.L. (eds.) (1994) *Philosophical Psychopathology*, Cambridge, MA: MIT Press.
- Griffiths, P.J. (1986) *On Being Mindless: Buddhist Meditation and the Mind–Body Problem*, La Salle, IL: Open Court.
- Griffiths, P.J. (1990) Pure consciousness and Indian Buddhism, in Forman, R.K.C. (ed.) *The Problem of Pure Consciousness*, pp. 71–97, Oxford: Oxford University Press.
- Guillot M. (2017) I me mine: On a confusion concerning the subjective character of experience, *Review of Philosophy and Psychology*, **8** (1), pp. 23–53.
- Harman, G. (1990) The intrinsic quality of experience, *Philosophical Perspectives*, **4**, pp. 31–52.
- Harman, G. (2006) Self-reflexive thought, *Philosophical Issues*, **16** (1), pp. 334–345.
- Hattori, M. (1968) *Dignāga, On Perception*, Cambridge, MA: Harvard University Press.
- Hopkins, G.M. (1880/1959) Commentary on the spiritual exercises of St Ignatius Loyola, in Devlin, C.J. (ed.) *Sermons and Devotional Writings*, London: Oxford University Press.
- Horgan, T. & Tienson, J. (2002) The intentionality of phenomenology and the phenomenology of intentionality, in Chalmers, D. (ed.) *Philosophy of Mind: Classical and Contemporary Readings*, pp. 520–533, New York: Oxford University Press.
- Howell, R. (2023a) *Self-awareness and the Elusive Subject*, Oxford: Oxford University Press.
- Howell, R. (2023b) Transparency and subjective character, in Guillot, M. & García-Carpintero, M. (eds.) *Self-Experience: Essays on Inner Awareness*, Oxford: Oxford University Press.
- Howell, R. & Thompson, B. (2017) Phenomenally mine: In search of the subjective character of consciousness, *Review of Philosophy and Psychology*, **8** (1), pp. 103–127.
- Jacob, P. & de Vignemont, F. (2010) Spatial coordinates and phenomenology in two visual systems model, in Gangopadhyay, N., Madary, M. & Spicer, F. (eds.) *Perception, Action, and Consciousness: Sensorimotor Dynamics and Two Visual Systems*, pp. 125–144, Oxford: Oxford University Press.
- Jenkinson, P.M., Haggard, P., Ferreira, N.C. & Fotopoulou, A. (2013) Body ownership and attention in the mirror: Insights from somatoparaphrenia and the rubber hand illusion, *Neuropsychologia*, **51** (8), pp. 1453–1462.
- Jones, R. & Gellman, J. (2022) Mysticism, in Zalta, E.N. & Nodelman, U. (eds.) *The Stanford Encyclopedia of Philosophy (Fall 2022 Edition)*, [Online], <https://plato.stanford.edu/archives/fall2022/entries/mysticism/>.
- Josipovic, Z. (2010) Duality and nonduality in meditation research, *Consciousness and Cognition*, **19** (4), pp. 1119–1121. doi: [10.1016/j.concog.2010.03.016](https://doi.org/10.1016/j.concog.2010.03.016)
- Josipovic, Z. (2014) Neural correlates of nondual awareness in meditation, *Annals of the New York Academy of Sciences*, **1307**, pp. 9–18. doi: [10.1111/nyas.12261](https://doi.org/10.1111/nyas.12261)
- Josipovic, Z. & Miskovic, V. (2020) Nondual awareness and minimal phenomenal experience, *Frontiers in Psychology*, **11**, art. 2087. doi: [10.3389/fpsyg.2020.02087](https://doi.org/10.3389/fpsyg.2020.02087)
- Kapitan, T. (1999) The ubiquity of self-awareness, *Grazer Philosophische Studien*, **57**, pp. 17–44.

- Katz, S.T. (1978) Language, epistemology, and mysticism, in Katz, S.T. (ed.) *Mysticism and Philosophical Analysis*, Oxford: Oxford University Press.
- Kellner, B. (2010) Self-awareness in Dignāga's *Pramāṇasamuccaya* and *-vṛtti*: A close reading, *Journal of Indian Philosophy*, **38** (3), pp. 203–231.
- Kellner, B. (2011) Self-awareness (*Svasamvedana*) and infinite regresses: A comparison of arguments by Dignāga and Dharmakīrti, *Journal of Indian Philosophy*, **39** (4–5), pp. 411–426.
- Kobayashi, H. (2010) Self-awareness and mental perception, *Journal of Indian Philosophy*, **38** (3), pp. 233–345.
- Kriegel, U. (2002) Phenomenal content, *Erkenntnis*, **57**, pp. 175–198.
- Kriegel, U. (2006) The same-order monitoring theory of consciousness, in Kriegel, U. & Williford, K. (eds.) *Self-Representational Approaches to Consciousness*, pp. 143–170, Cambridge, MA: MIT Press.
- Kriegel, U. (2009) *Subjective Consciousness: A Self-Representational Theory*, Oxford: Oxford University Press.
- Kriegel, U. (2018) Dignāga's argument for the awareness principle: An analytic refinement, *Philosophy East and West*, **69**, pp. 144–156.
- Kriegel, U. (2023) The three circles of consciousness, in Guillot, M. & Garcia-Carpintero, M. (eds.) *Self-Experience: Essays on Inner Awareness*, pp. 169–191, Oxford: Oxford University Press.
- Kriegel, U. & Williford, K. (eds.) (2006) *Self-Representational Approaches to Consciousness*, Cambridge, MA: MIT Press.
- Lane, T. (2015) Self, belonging, and conscious experience: A critique of subjectivity theories of consciousness, in Gennaro, R. (ed.) *Disturbed Consciousness: New Essays on Psychopathology and Theories of Consciousness*, pp. 103–140, Cambridge, MA: MIT Press.
- Laukkonen, R.E., Sacchet, M.D., Barendregt, H., Devaney, K.J., Chowdhury, A. & Slagter, H.A. (2023) Cessations of consciousness in meditation: Advancing a scientific understanding of *nirodha samāpatti*, *Progress in Brain Research*, **280**, pp. 61–87.
- Laureys, S. & Schiff, N.D. (2012) Coma and consciousness: Paradigms (re)framed by neuroimaging, *NeuroImage*, **61** (2), pp. 478–491.
- Letherby, C. (2020) Being for no-one, *Philosophy and the Mind Sciences*, **1** (1), pp. 1–26.
- Letherby, C. & Gerrans, P. (2017) Self unbound: Ego dissolution in psychedelic experience, *Neuroscience of Consciousness*, **3**, nix016. doi: [10.1093/nc/nix016](https://doi.org/10.1093/nc/nix016)
- Levine, J. (2001) *Purple Haze: The Puzzle of Consciousness*, Oxford: Oxford University Press.
- Levine, J. (2007) Two kinds of access, *Behavioral and Brain Sciences*, **30**, pp. 514–515.
- Lindström, L., Kajonius, P. & Cardeña, E. (2022) Dissolution of what? The self lost in self-transcendent experiences, *Journal of Consciousness Studies*, **29** (5–6), pp. 75–101.
- Loar, B. (1987) Subjective intentionality, *Philosophical Topics*, **15** (1), pp. 89–124.
- Loar, B. (2003) Phenomenal intentionality as the basis of mental content, in Hahn, M. & Ramberg, B. (eds.) *Reflections and Replies: Essays on the Philosophy of Tyler Burge*, pp. 229–258, Cambridge, MA: MIT Press.

- Lonergan, B. (1967/1988) *Collected Works of Bernard Lonergan*, Crowe F.E. & Doran, R.M. (eds.), Toronto: Toronto University Press. (Revised 2nd ed. of *Collection: Papers by Bernard Lonergan*, New York: Herder and Herder.)
- Ludlow, P. (2019) *Interperspectival Content*, New York: Oxford University Press.
- Lycan, W. (1996) *Consciousness and Experience*, Cambridge, MA: MIT Press.
- Lycan, W. (2006) Representational theories of consciousness, in Zalta, E.N. (ed.) *The Stanford Encyclopedia of Philosophy (Fall 2008 Edition)*, [Online], <http://plato.stanford.edu/archives/fall2008/entries/consciousness-representational/>.
- MacKenzie, M. (2007) The illumination of consciousness: Approaches to self-awareness in the Indian and Western traditions, *Philosophy East and West*, **57** (1), pp. 40–62.
- Matt, D.C. (1997) Varieties of mystical nothingness: Jewish, Christian, and Buddhist perspectives, in Runia, D.T. & Sterling, G.E. (eds.) *Wisdom and Logos: Studies in Jewish Thought in Honor of David Winston*, The Studia Philonica Annual (Studies in Hellenistic Judaism), **9**, pp. 316–331, Atlanta: Scholars Press.
- Matthen, M. (2010) Two visual systems and the feeling of presence, in Gangopadhyay, N., Madary, M. & Spicer, F. (eds.) *Perception, Action, and Consciousness: Sensorimotor Dynamics and Two Visual Systems*, pp. 107–124, Oxford: Oxford University Press.
- Merleau-Ponty, M. (1945/2002) *Phénoménologie de la perception*, Paris: Gallimard. Smith, C. (trans.) (2002) *Phenomenology of Perception*, London: Routledge & Kegan Paul.
- Metzinger, T. (2003) *Being No One: The Self-Model Theory of Subjectivity*, Cambridge, MA: MIT Press.
- Metzinger, T. (2020) Minimal phenomenal experience: Meditation, tonic alertness, and the phenomenology of ‘pure’ consciousness, *Philosophy and the Mind Sciences*, **1** (1), pp. 1–7. doi: [10.33735/phimisci.2020.I.46](https://doi.org/10.33735/phimisci.2020.I.46)
- Metzinger, T. (2024) *The Elephant and the Blind: The Experience of Pure Consciousness: Philosophy, Science, and 500+ Experiential Reports*, Cambridge, MA: MIT Press.
- Millière, R. (2017) Looking for the self: Phenomenology, neurophysiology and philosophical significance of drug-induced ego dissolution, *Frontiers in Human Neuroscience*, **11**, art. 245. doi: [10.3389/fnhum.2017.00245](https://doi.org/10.3389/fnhum.2017.00245)
- Millière, R. (2020). The varieties of selflessness, *Philosophy and the Mind Sciences*, **1** (1), pp. 1–41. doi: [10.33735/phimisci.2020.I.48](https://doi.org/10.33735/phimisci.2020.I.48)
- Millière, R., Carhart-Harris, R.L., Roseman, L., Trautwein, F-M., & Berkovich-Ohana, A. (2018) Psychedelics, meditation, and self-consciousness, *Frontiers in Psychology*, **9**, art. 1475. doi: [10.3389/fpsyg.2018.01475](https://doi.org/10.3389/fpsyg.2018.01475)
- Monti, M.M., Laureys, S. & Owen, A.M. (2010) The vegetative state, *British Medical Journal*, **341**, pp. 292–296.
- Moore, G.E. (1903) The refutation of idealism, *Mind*, **12** (48), pp. 433–453.
- Moriyama, S. (2010) On self-awareness in the sautrāntika epistemology, *Journal of Indian Philosophy*, **38** (3), pp. 261–277.
- Müller, F., Lenz, C., Dolder, P., Lang, U., Schmidt, A., Liechti, M. & Borgwardt, S. (2017) Increased thalamic resting-state connectivity as a core driver of LSD-induced hallucinations, *Acta Psychiatrica Scandinavica*, **136**, pp. 648–657. doi: [10.1111/acps.12818](https://doi.org/10.1111/acps.12818)

- Nagel, T. (1974) What is it like to be a bat?, *The Philosophical Review*, **83** (4), pp. 435–450.
- Nagel, T. (2000) The psychophysical nexus, in Boghossian, P. & Peacocke, C. (eds.) *New Essays on the A Priori*, Oxford: Clarendon Press.
- Ñāṇamoli, T. & Bodhi, B. (1995) *The Middle Length Discourses of the Buddha: A New Translation of the Majjhima Nikāya*, Boston, MA: Wisdom Publications.
- Nour, M.M. & Carhart-Harris, R.L. (2017) Psychedelics and the science of self-experience, *British Journal of Psychiatry*, **210**, pp. 177–179. doi: 10.1192/bjp.bp.116.194738
- O’Conaill, D. (2019) Subjectivity and mineness, *Erkenntnis*, **84** (2), pp. 325–341.
- O’Regan, J.K. & Noë, A. (2001) A sensorimotor account of vision and visual consciousness, *The Behavioral and Brain Sciences*, **24** (5), pp. 939–1031.
- Owen, A.M., Coleman, M.R., Boly, M., Davis, M.H., Laureys, S. & Pickard, J. (2006) Detecting awareness in the vegetative state, *Science*, **313** (5793), p. 1402.
- Owen, A.M., Schiff, N.D. & Laureys, S. (2009) A new era of coma and consciousness science, *Progress in Brain Research*, **177**, pp. 399–411.
- Parnas, J. & Sass, L.A. (2011) The structure of self-consciousness in schizophrenia, in Gallagher, S. (ed.) *The Oxford Handbook of the Self*, pp. 521–546, Oxford: Oxford University Press.
- Peacocke, C. (1983) *Sense and Content*, Oxford: Oxford University Press.
- Peacocke, C. (2014) *The Mirror of the World: Subjects, Consciousness, and Self-Consciousness*, Oxford: Oxford University Press.
- Pereira, M.G., de Oliveira, L., Erthal, F.S., Joffily, M., Mocaiber, I.F., Volchan, E. & Pessoa, L. (2010) Emotion affects action: Midcingulate cortex as a pivotal node of interaction between negative emotion and motor signals, *Cognitive, Affective, & Behavioral Neuroscience*, **10**, pp. 94–106.
- Picard, F. & Craig, A.D. (2009) Ecstatic epileptic seizures: A potential window on the neural basis for human self-awareness, *Epilepsy & Behavior*, **16**, pp. 539–546.
- Picolas, C. (2020) Is the ‘minimally conscious state’ patient minimally self-aware?, *Frontiers in Psychology*, **11**, art. 539665. doi: 10.3389/fpsyg.2020.539665
- Prosser, S. & Recanati, F. (eds.) (2012) *Immunity to Error Through Misidentification*, Cambridge: Cambridge University Press.
- Pruden, L. (trans.) (1988) *Karmasiddhiprakaraṇa: Treatise on Action by Vasubandhu*, Berkeley, CA: Asian Humanities Press.
- Prüfer, T. (1975) An outline of some Husserlian distinctions and strategies, especially in the Crisis, *Phänomenologische Forschungen*, **1**, pp. 189–204.
- Rosenthal, D. (1986) Two concepts of consciousness, *Philosophical Studies*, **49**, pp. 329–359.
- Rosenthal, D. (2004) Varieties of higher-order theory, in Gennaro, R. (ed.) *Higher-Order Theories of Consciousness: An Anthology*, pp. 17–44, Amsterdam: John Benjamins.
- Saetta, G., Zindel-Geisseler, O., Stauffacher, F., Serra, C., Vannuscorps, G. & Brugger, P. (2021) Asomatognosia: Structured interview and assessment of visuomotor imagery, *Frontiers in Psychology*, **11**, art. 544. doi: 10.3389/fpsyg.2020.544544
- Sartre, J.-P. (1943) *L’être et le néant*, Paris: Gallimard.
- Sass L.A. & Parnas, J. (2003) Schizophrenia, consciousness, and the self, *Schizophrenia Bulletin*, **29** (3), pp. 427–444.

- Sass, L.A., Borda, J.P., Madeira, L., Pienkos, E. & Nelson, B. (2018) Varieties of self disorder: A bio-pheno-social model of schizophrenia, *Schizophrenia Bulletin*, **44** (4), pp. 720–727.
- Scheer, J.K. (2009) Experience and self-consciousness, *Philosophical Studies*, **144** (1), pp. 95–105.
- Schiff, N.D., Giacino, J.T. & Fins, J.J. (2009) Deep brain stimulation, neuroethics, and the minimally conscious state: Moving beyond proof of principle, *Archives of Neurology*, **66** (6), pp. 697–702.
- Schmithausen, L. (1987/2007) *Ālayavijñāna: On the Origin and the Early Development of a Central Concept of Yogācāra Philosophy*, 2 vols., reprint with addenda and corrigenda, Tokyo: International Institute for Buddhist Studies.
- Searle, J. (1983) *Intentionality*, Cambridge: Cambridge University Press.
- Searle, J. (2000) Consciousness, *Annual Review of Neuroscience*, **23**, pp. 557–578.
- Searle, J. (2005) The self as a problem in philosophy and neurobiology, in Feinberg, T.E. & Keenan, J.P. (eds.) *The Lost Self: Pathologies of the Brain and Identity*, pp. 7–19, Oxford: Oxford University Press.
- Sharf, R. (2014) Is nirvāṇa the same as insentience? Chinese struggles with an Indian Buddhist ideal, in Kierschnick J. & Shahar, M. (eds.) *India in the Chinese Imagination: Myth, Religion, and Thought*, pp. 131–160, Philadelphia, PA: University of Pennsylvania Press.
- Shoemaker, S. (1986) Introspection and the self, *Midwest Studies in Philosophy*, **10** (1), pp. 101–120.
- Shoemaker, S. (1994) Phenomenal character, *Noûs*, **28** (1), pp. 21–38.
- Shoemaker, S. (1996) *The First-Person Perspective and Other Essays*, Cambridge: Cambridge University Press.
- Siewert, C. (2004) Is experience transparent?, *Philosophical Studies*, **117**, pp. 15–41.
- Siewert, C. (2013) Phenomenality and self-consciousness, in Kriegel, U. (ed.) *Phenomenal Intentionality*, pp. 235–260, Oxford: Oxford University Press.
- Speaks, J. (2009) Transparency, intentionalism, and the nature of perceptual content, *Philosophy and Phenomenological Research*, **79** (3), pp. 539–573.
- Stoljar, D. (2016) The semantics of ‘what it’s like’ and the nature of consciousness, *Mind*, **125** (500), pp. 1161–1198.
- Strassman, R. (2000) *DMT: The Spirit Molecule: A Doctor’s Revolutionary Research Into the Biology of Near-death and Mystical Experiences*, New York: Simon and Schuster.
- Strawson, G. (1997) The self, *Journal of Consciousness Studies*, **4** (5–6), pp. 405–428.
- Strawson, G. (1999) The self and the SESMET, *Journal of Consciousness Studies*, **6** (4), pp. 99–135.
- Strawson, G. (2003) What is the relation between an experience, the subject of the experience, and the content of the experience?, *Philosophical Issues*, **13**, pp. 279–315.
- Strawson, G. (2009) *Selves: An Essay in Revisionary Metaphysics*, Oxford: Oxford University Press.
- Strawson, G. (2011) The minimal subject, in Gallagher, S. (ed.) *Oxford Handbook of the Self*, pp. 253–278, Oxford: Oxford University Press.
- Strawson, G. (2017) *The Subject of Experience*, Oxford: Oxford University Press.
- Strawson, G. (2018) *Things that Bother Me: Death, Freedom, the Self, etc.*, New York: New York Review Books.

- Sullivan, P.R. (1995) Contentless consciousness and theories of mind, *Philosophy, Psychiatry, & Psychology*, **2** (1), pp. 51–59.
- Tagliazucchi, E., Roseman, L., Kaelen, M., Orban, C., Muthukumaraswamy, S.D., Murphy, K., Laufs, H., Leech, R., McGonigle, J., Crossley, N., Bullmore, E., Williams, T., Bolstridge, M., Feilding, A., Nutt, D.J. & Carhart-Harris, R. (2016) Increased global functional connectivity correlates with LSD-induced ego dissolution, *Current Biology*, **26**, pp. 1043–1050. doi: [10.1016/j.cub.2016.02.010](https://doi.org/10.1016/j.cub.2016.02.010)
- Thompson, E. (2011) Self-no-self? Memory and reflexive awareness, in Sidertis, M., Thompson, E. & Zahavi, D. (eds.) *Self, No-Self? Perspectives from Analytic, Phenomenological, and Indian Traditions*, pp. 156–192, Oxford: Oxford University Press.
- Travis, F. & Shear, J. (2010) Reply to Josipovic: Duality and non-duality in meditation research, *Consciousness and Cognition*, **19**, pp. 1122–1123.
- Tye, M. (1995) *Ten Problems of Consciousness: A Representational Theory of the Phenomenal Mind*, Cambridge, MA: MIT Press.
- Tye, M. (2000) *Consciousness, Color, and Content*, Cambridge, MA: MIT Press.
- Vago, D.R. & Silbersweig, D.A. (2012) Self-awareness, self-regulation, and self-transcendence (S-ART): A framework for understanding the neurobiological mechanisms of mindfulness, *Frontiers in Human Neuroscience*, **6**, art. 296. doi: [10.3389/fnhum.2012.00296](https://doi.org/10.3389/fnhum.2012.00296)
- Vocat, R., Saj, A. & Vuilleumier, P. (2012) The riddle of anosognosia: Does unawareness of hemiplegia involve a failure to update beliefs?, *Cortex*, **49** (7), pp. 1771–1781.
- Waldron, W. (2003) *The Buddhist Unconscious: The Ālaya-vijñāna in the Context of Indian Buddhist Thought*, London: Routledge Curzon.
- Watson, A. (2010) Bhaṭṭa Rāmakaṇṭha's elaboration of self-awareness (*svasaṃvedana*), and how it differs from Dharmakīrti's exposition of the concept, *Journal of Indian Philosophy*, **38** (3), pp. 297–321.
- Williams, P. (1998) *The Reflexive Nature of Awareness: A Tibetan Madhyamaka Defence*, London: Curzon.
- Williford, K. (2006) The self-representational structure of consciousness, in Kriegel, U. & Williford, K. (eds.) *Self-Representational Approaches to Consciousness*, pp. 111–142, Cambridge, MA: MIT Press.
- Williford, K., Bennequin, D., Friston, K. & Rudrauf, D. (2018) The projective consciousness model and phenomenal selfhood, *Frontiers in Psychology*, **9**, art. 2571. doi: [10.3389/fpsyg.2018.02571](https://doi.org/10.3389/fpsyg.2018.02571)
- Windt, J.M. (2015) Just in time — dreamless sleep experience as pure subjective temporality, in Metzinger, T.K. & Windt, J.M. (eds.) *Open MIND*, Frankfurt am Main: MIND Group. doi: [10.15502/9783958571174](https://doi.org/10.15502/9783958571174)
- Yang, W.F.Z., Chowdhury, A., Bianciardi, M., van Lutterveld, R., Sparby, T. & Sacchet, M.D. (2024) Intensive whole-brain 7T MRI case study of volitional control of brain activity in deep absorptive meditation states, *Cerebral Cortex*, **34**. doi: [10.1093/cercor/bhad408](https://doi.org/10.1093/cercor/bhad408)
- Yao, Z. (2005) *The Buddhist Theory of Self-Cognition*, London: Routledge.
- Zahavi, D. (1994) Husserl's phenomenology of the body, *Études Phénoménologiques*, **19**, pp. 63–84.
- Zahavi, D. (2005) *Subjectivity and Selfhood: Investigating the First-Person Perspective*, Cambridge, MA: MIT Press.

- Zahavi D. (2006) Thinking about self-consciousness: Phenomenological perspectives, in Kriegel, U. & Williford, K. (eds.) *Self-Representational Approaches to Consciousness*, Cambridge, MA: MIT Press.
- Zahavi, D. (2011) The experiential self: Objections and clarifications, in Siderits, M., Thompson, E. & Zahavi, D. (eds.) *Self, No Self? Perspectives from Analytical, Phenomenological, and Indian Traditions*, pp. 56–78, Oxford: Oxford University Press.
- Zahavi, D. (2014) *Self and Other: Exploring Subjectivity, Empathy, and Shame*, Oxford: Oxford University Press.
- Zahavi, D. & Parnas, J. (1998) Phenomenal consciousness and self-awareness: A phenomenological critique of representational theory, *Journal of Consciousness Studies*, **5** (5–6), pp. 687–705.
- Zahavi, D. & Kriegel, U. (2015) For-me-ness: What it is and what it is not, in Dahlstrom, D., Elpidorou, A. & Hopp, W. (eds.) *Philosophy of Mind and Phenomenology*, pp. 36–53, London: Routledge.