

Waking, Knowing and Being Conscious

James Stazicker

Abstract: Being conscious, in the sense in which this state is associated with being awake as opposed to dreaming or sleepwalking, has a distinctive experiential character and epistemic role. The former is reflected in the experience of waking up, the latter in traditional problems about perceptual knowledge. I outline a conception of being wakefully conscious which identifies this state in terms of its role in explaining knowledge about one's environment and oneself. I suggest that this dual epistemic role may be grounded, in part, in the control of attention. I argue that this conception has some advantages over Matthew Soteriou's (2019) account of the state in question in terms of a temporal point of view. These advantages are brought out by examining the experience of waking up, a traditional problem about perceptual knowledge, and folk attitudes to sleepwalking and infant consciousness.

I

Waking up is a distinctive experience which seems to consist partly in the onset of a distinctive experiential state: the state of being conscious, in one central use of that phrase; what Matthew Soteriou calls 'the state of wakeful consciousness' (this volume). Brian O'Shaughnessy described this state and its onset evocatively as 'the vastly familiar light that appears in the head when a person surfaces from sleep or anaesthetic or dream' (2000, p.68).

Despite being distinctive and familiar, the experiential character of wakeful consciousness is difficult to specify in a way that does justice to the experience of waking up. I begin by considering some reasons for this difficulty, since they suggest a useful constraint on a good characterisation of wakeful consciousness. In section II, I raise some related qualms about Soteriou's account of wakeful consciousness in terms of a temporal point of view. Sections III and IV briefly explore the prospects for an alternative, epistemic conception of wakeful consciousness.

Soteriou notes that the distinctive character of wakeful consciousness is 'elusive' to introspective attention, because 'the state of wakeful consciousness is not itself to be identified with any particular phenomenally conscious experience', nor 'it seems ... with any specific mental state or event with intentional content' (p.1). The most obvious reason why such identifications fail is that wakeful consciousness is consistent all manner of particular experiences and specific intentional states and events, yet requires no single one of them. Nonetheless, one might hold that wakeful consciousness is characterised by a distinctive *class* of intentional contents—that is, by one's experiences' having contents that belong to a general category which distinguishes them from the contents of non-wakeful experiences. For example, on the assumption that dreams are non-wakeful experiences (Windt 2013), one might take the challenge of characterising the distinctive state of wakeful consciousness to consist, in part, in specifying the difference between the contents of dreams and the contents of wakeful experiences. Here one could appeal to empirical research into the 'bizarreness' of dreams: 'dream contents that deviate in peculiar ways from their counterparts in waking life' (Revonsuo 2006, p.240), including incongruous combinations of features, vagueness about the identities of persons and objects, and discontinuities such as objects appearing, disappearing or transforming unrealistically (Hobson 1988).

One problem with this approach is evidence that, statistically, most reported dream contents are not bizarre in those respects (Revonsuo and Salmivalli 1995). But the experience of waking up suggests a deeper problem with any attempt to characterise wakeful consciousness in terms of a class of intentional contents. Soteriou also notes that ‘one can become immediately aware ... that one has woken up’ (p.1). I suspect this is true not only in the temporal sense of ‘immediately’, but also in the sense that awareness of waking up is not based on awareness of anything else distinctive. This is not to say that you can experience waking up without being aware of anything else—without your experience having some further content or object. Nor is it to deny that the experience of waking up is an experience of waking up *to* such contents and objects of experience. Rather, when you experience waking up, and in that way come to believe that you are awake, this is not aptly reconstructed as a conclusion justified or informed by an implicit premise that your experience or awareness has certain distinctive contents or apparent objects.

I have no decisive argument for the hypothesis that awareness of waking up is immediate in this sense, but I hope this hypothesis can be motivated by reference to a familiar example. Consider Descartes’ description, in the *Sixth Meditation*, of how to discriminate waking from dreaming:

[W]hen I distinctly see where things come from and where and when they come to me, and when I can connect my perceptions of them with the whole of the rest of my life without a break, then I am quite certain that when I encounter these things I am not asleep but awake.

Descartes 1641/1984, p.62

On one reading, Descartes here appeals to the fact that objects and contents of wakeful experience have a distinctive continuity with the rest of one’s life. Whether or not the kind of insight into this fact which he describes is a way of knowing that you are awake,¹ it is not the basis of your awareness that you are awake when you experience waking up. If, through intoxication or misadventure, you have ever woken up somewhere that you could not connect with the rest of life, I assume you still experienced waking up, and so were in a position to be aware that you were awake. More generally, when one experiences waking up, one’s awareness of being awake does not seem to be based on any observable ‘sign’ of being awake. When Descartes says, in the *First Meditation*, ‘there are never any sure signs by means of which being awake can be distinguished from being asleep’ (1641/1984, p.13), one can think of candidate signs to doubt—facts about what one perceives or thinks, say—but it would be odd to suppose that in doing so one unearths lemmas on which one’s awareness of being awake is based when one experiences waking up.²

I will assume as a working hypothesis that awareness of waking up is immediate in the sense I have proposed. If so, any attempt to characterise the state of wakeful consciousness as

¹ For Descartes, exercising the capacities described in the quotation constitutes indubitable knowledge when combined with (i) a ‘check’, using ‘all the senses as well as my memory and my intellect’, which yields ‘no conflicting reports’, and (ii) knowledge that God is not a deceiver (1641/1984, p.62).

² Descartes’ suggested signs include not only perceiving a piece of paper but also *looking* at it, as well as the fact that ‘as I stretch out and feel my hand I do so deliberately, and I know what I am doing’ (1641/1984, p.13). Below I suggest that the experience of waking up has an important connection with agential knowledge, but that this is not to be construed in terms of an observable sign of being awake.

experience or awareness of contents or apparent objects in some distinctive class misses an important aspect of that state's character—the aspect whose onset figures in the experience of waking up.

In addition to having a distinctive character, the state of wakeful consciousness seems to play an important explanatory role: while awake, you perceive, think, feel and act as you do partly because you are in this state. For example, if you have a long-term plan to set out for Durham early on Thursday, your waking up and subsequently being conscious on Thursday is part of the explanation of why you then take steps to that end. Why suppose that this explanation involves the state of wakeful consciousness—a state that persists for as long as you are awake? Philosophical discussions of conscious states tend to focus instead on specific, shorter-lasting experiences, including experiences of perception, cognition, emotion, motivation and goal-directed activity. Why should the explanation not be given just in terms of such specific experiences? A full answer depends on the details of one's account of the state of wakeful consciousness, but we can provide some initial motivation by contrasting this explanation with the explanation we might give of your engaging in similar behaviour if instead you were sleepwalking.

Somnambulism is a disorder of arousal during deep NREM sleep. Some somnambulist behaviour is 'surprisingly complex and might necessitate high-level planning and motor control—e.g., getting dressed, cooking, playing a musical instrument, driving a car'. Such behaviour is 'construed by many patients as being motivated by an intrinsic sense of urgency or underlying logic (although judgment is often impaired) that accounts for actions during actual episodes'. Sleepwalkers usually have their eyes open, and 'are aware of their immediate physical environment during an episode'; their recalled 'phenomenological experiences are broadly consistent with behaviours recorded during episodes' (Zadra et al. 2013, pp.285-288).

So, like complex wakeful actions, at least some complex sleepwalking behaviours seem to be explained by specific 'phenomenological experiences' of perception, cognition, emotion, motivation and goal-directed activity.³ Yet we do not hold people morally or legally responsible for their sleepwalking behaviours in the way in which we hold them responsible for their wakeful actions. For example, sleepwalkers have been acquitted of murder on the grounds that they were sleepwalking while they killed their victims. Roger Broughton et al. suggest that this is due to an assumed difference between the explanations of sleepwalking behaviours and wakeful behaviours: explanations of sleepwalking behaviours do not include 'intent' or 'voluntary control of one's actions' (1994, p.254). If we focus only on specific experiences, it is hard to see how there could be such a difference between the explanations. By contrast, we can appreciate this difference if we accept that, in the awake, specific experiences are conditioned by the state of wakeful consciousness—or so I argue in what follows.

³ Since the sleepwalker is in one central sense not conscious, one might doubt whether she has experiences in a sense which makes intelligible a comparison between them and wakeful experiences. Compare Malcolm's (1956) claim that dreams are not experiences in a sense which makes intelligible Descartes' comparison between them and wakeful experiences. Given the differences between (REM) dreaming and (NREM) somnambulism, some but not all of the empirical considerations that have been adduced to support the view that dreams are experiences (see Windt 2013) are relevant to somnambulism.

II

Soteriou outlines an account of the state of wakeful consciousness which is designed to capture both its distinctive experiential character and its explanatory role. His account of this state is ‘an account of *a point of view* that is associated with being awake’ (p.10), in Thomas Nagel’s (1974) sense of ‘point of view’: a general type that characterises one’s conscious experience but ‘is not peculiar to any *specific* conscious episode that might occur when one is awake, nor any specific mental state with intentional content that might obtain’ (Soteriou, p.11). In particular, Soteriou focusses on an asymmetrical, tensed psychological orientation to one’s immediate past and immediate future as lying on either side of the boundaries of a certain interval of time; that interval, and what occurs within it, is thereby experienced as temporally present. He characterises the state of wakeful consciousness in terms of a ‘temporal point of view’ in which such experienced presents are synthesised into a longer-lasting ‘lived’ present: ‘a synthesis that stitches together, in an appropriate way, what was happening, what is happening, as well as the future-oriented, goal-directed perspectives one has, and has just had’ (p.15). While one is awake, this temporal point of view conditions and structures one’s specific conscious episodes. Specific experiences of perception, cognition and action ‘seem to fall within the experienced present’, or within a longer, synthesised present, and so ‘need to be specified, in part, in terms of relevant asymmetries in the subject’s psychological orientation to time’ (p.13).

This is a promising account of the distinctive experiential character of wakeful consciousness in several related respects. First, when you wake up, and so ‘surface’ (p.2) to the state of wakeful consciousness, you do seem to surface to experience of certain intervals of time and what occurs within them as present, to awareness of the immediate past and immediate future as lying on either side of the boundaries of those intervals, and to awareness of longer, temporally ordered intervals and what occurs within them. Secondly, like the state of wakeful consciousness, this form of temporal awareness lasts for as long as you are awake. Thirdly, just as wakeful consciousness seems to be a state within which specific conscious episodes occur, rather than being constituted by any specific conscious episode, so specific conscious episodes occur within your temporal point of view, in that they are conditioned and structured by your tensed orientation to the past and future.

The idea that the state of wakeful consciousness consists in such a temporal point of view also makes room for a promising account of this state’s explanatory role. I suggested above that this explanatory role lies, in part, in the way in which the state conditions specific experiences of perception, cognition, emotion, motivation and goal-directed activity that occur within it. On Soteriou’s account, this can be understood in terms of the way in which such specific experiences are conditioned and structured by a temporal point of view. For example, the point of view in question involves ‘an *agential* perspective on one’s future—the sort of perspective on one’s future one has in virtue of engaging in goal-directed intentional action’ (p.15), such that this point of view makes possible ‘various acts, activities and actions’ (p.16).

I will focus criticism around the ‘epistemic achievement’ constituted by the temporal point of view (p.15).⁴ Even if this point of view is a structural condition within which specific

⁴ Soteriou says that this point of view constitutes an epistemic achievement insofar as it requires a successful synthesis of experienced presents. I will emphasise, in addition, a sense in which awareness of the experienced present constitutes an epistemic achievement. If you doubt that this constitutes an epistemic achievement on the grounds that the experienced present is ‘specious’ (James 1950/1890), focus instead on the awareness of greater intervals which requires successful synthesis.

experiences occur, it is itself a specific, distinctive epistemic achievement. I will explain three reasons for worrying that, although the temporal point of view may be an especially significant aspect of wakeful consciousness, an account of the state of wakeful consciousness in terms of such a specific, distinctive epistemic achievement misconstrues this state's character and explanatory role.

The temporal point of view is characterised by awareness *of* something distinctive: the experienced and lived presents. One's tensed orientation to the past and future consists in taking them to lie on either side of the boundaries of a temporal interval which is experienced as present, and the temporal point of view is a conscious state—an aspect of our psychology involving 'occurrence in the stream of consciousness'—only insofar as it involves this experience of the present (Soteriou, p.11). Soteriou argues that experience of the present is not to be understood in terms of the 'intentional temporal content of perceptual experience' or of 'inner sense' (p.13). Nonetheless, it is experience *of* the present as an interval bearing certain relations to the past and future. Equally, the synthesis of experienced presents 'provides one with awareness of a wider temporal span' (p.15). So if the distinctive character of wakeful consciousness is the distinctive character of our temporal point of view, wakeful consciousness is distinctive in virtue of having a certain distinctive class of objects—experienced and lived presents.

In section I, I adopted the working hypothesis that awareness of waking up is immediate in the following sense: when you experience waking up, and in that way come to believe that you are awake, this is not aptly reconstructed as a conclusion justified or informed by an implicit premise that your experience or awareness has certain distinctive contents or apparent objects; when you experience waking up, your awareness of being awake is not based on such a sign of being awake. If this hypothesis is correct, it is unclear how Soteriou's account of wakeful consciousness could capture the experience of waking up, as he intends it to do. On this account, the state of wakeful consciousness is distinctive in virtue of the awareness of the present which it entails. So on the face of it, to experience waking up—that is, to experience the onset of the distinctive state of wakeful consciousness—should be to experience the onset of awareness of the present. Accordingly, when you experience waking up, awareness of the present should serve as a sign of being awake; the fact that consciousness puts you in contact with the present should be your basis for taking yourself to be awake.

To clarify, the objection is not that, on the account of wakeful consciousness as a temporal point of view, awareness of the present should be a *sure* sign that you are awake, where a sure sign constitutes indubitable evidence. For example, if dreaming is 'the illusion of a point of view' (Soteriou, p.17), you might note that you seem to be in conscious contact with the present, and so seem to be awake, but doubt on Cartesian grounds whether this is the real thing or a dream. Instead the objection is that on this account, when you experience waking up, the fact that you are in conscious contact with the present should be your basis for taking yourself to be awake; in that sense, awareness of the present should serve as a sign of being awake. If my working hypothesis is correct, this is not how you become aware that you are awake when you experience waking up; therefore identifying the state of wakeful consciousness with a temporal point of view misses an important aspect of that state's character—the aspect whose onset figures in the experience of waking up.

This objection assumes that to experience waking up is to experience the onset of the state of wakeful consciousness. That assumption might be resisted by appeal to the distinction Soteriou draws between being awake and wakeful consciousness. He identifies being awake with being

in a state of ‘capacitation’: a state of release from the ‘fetters’ which sleep imposes on a creature’s various capacities, preventing those capacities from being exercised; to be capacitated is not to exercise those capacities, but it is to be in a state in which those capacities are ‘switched on’ or available for exercise rather than fettered (Crowther 2018).⁵ The connection between being awake and the state of wakeful consciousness, construed as a temporal point of view, is just that such capacitation is required for the ‘integrated exercise of capacities that makes possible that point of view’ (Soteriou, p. 16).

Given this distinction between being awake and wakeful consciousness, one might characterise the experience of waking up not as the onset of the state of wakeful consciousness, but as the onset of a state of capacitation. We should not then expect the experience of waking up *per se* to consist in the onset of awareness of the present, nor expect your awareness of waking up to be based on this sign of being awake. But this does not seem to be how Soteriou construes the experience of waking up. He motivates the idea that there is a distinctive experiential state of wakeful consciousness by reference to this state’s role in the experience of waking up. And I take it that the experience of waking up does in fact seem to consist in the onset of a distinctive conscious state, a state that entails activity in the stream of consciousness, rather than the mere potentiality of capacitation.

Still, I have offered no argument for this characterisation of the experience of waking up, and no doubt there are other plausible responses to the objection. For instance one might argue that temporally present intervals are not objects of awareness in the sense relevant to my working hypothesis, or one might reject that hypothesis altogether. Here one could appeal to the idea that a point of view is ‘elusive’ to introspective attention (Soteriou, p. 17), arguing that while the experience of waking up *is* based on a sign of being awake, this sign is elusive to introspection. However, the status of the temporal point of view as a distinctive epistemic achievement also raises two further, related worries which do not depend on my working hypothesis about the experience of waking up. Instead they concern, respectively, what wakeful consciousness requires and what wakeful consciousness explains.

The temporal point of view requires a quite demanding form of temporal cognition, marking out distinctions between past, present and future. This seems to be more demanding than the capacity merely to discriminate durations and rhythms. For example, even newborn infants respond systematically to variations in rhythm (Nazzi et al. 1998), and by 4-6 months they discriminate durations which differ by a ratio of 1:2 or more (Droit-Volet 2016). By contrast, it is uncertain what distinctions between past, present and future are represented by such young infants. Theresa McCormack and Christoph Hoerl (2017) argue that ‘[a] key part of what it is to represent an event as in the past is to represent it as happening at a particular time that can never be revisited’. This involves more than ‘being able to represent where in time an event is in terms of its position within an ordered repeated sequence of familiar events’. For instance, it is one thing to represent the position of tooth-brushing in an ordered bedtime routine, another to represent yesterday’s tooth-brushing as occurring at a time distinct from today’s; ‘in thinking in [the former] way, children are thinking about the status of events (completed/ not completed) rather than the location of points in time (past/future)’. McCormack and Hoerl argue that there is no empirical evidence that children under 24 months achieve the latter (pp.306-308).

⁵ Crowther himself does not distinguish the state of wakeful consciousness from being awake; he identifies both with capacitation. The idea of sleep as a ‘fetter’ is from Aristotle’s *De Somno*.

The above is not a straightforward counterexample to Soteriou's account of wakeful consciousness, for two reasons. First, McCormack and Hoerl are concerned with *concepts* of the past and future. Soteriou suggests that these concepts are not required for the kind of tensed orientation to the immediate past and immediate future that is involved in experience of the present (p.12). However, that kind of tensed orientation suffices only for an attenuated temporal point of view, not for the rich temporal point of view that Soteriou takes to be distinctive of wakeful consciousness; the latter involves awareness of a longer, synthesised present, and depends on an '*epistemic* orientation from an *agential* perspective' (p.16). To argue that infants achieve this rich temporal point of view, one would need to argue that it too is independent of the temporal concepts infants lack, and that they have whatever non-conceptual temporal awareness or more limited temporal concepts it requires. Though I cannot assess the matter in detail here, I take it there are both conceptual and empirical doubts about this argument.

Secondly, Soteriou suggests that the human state of wakeful consciousness may be species-specific (p.10). Similarly, one might hold that the human adult state of wakeful consciousness is specific to non-infant humans. Given the distinction between wakeful consciousness and being awake, this would not be to deny that infants are awake, just as we are; it would be to deny only that they share our state of wakeful consciousness.

To see what might be problematic about this proposal, consider its relationship with folk attitudes to infant consciousness. Folk psychology seems to employ a notion of a state of being conscious which is associated with being awake and which applies to both infants and adults. The current proposal allows that there is such a state, in the sense that both infants and adults are in a state of having experiences while awake. But the proposal is that a more specific state, identified with a point of view that infants lack, plays the explanatory roles we should expect from a state of wakeful consciousness as opposed to states of dreaming or sleepwalking. Now while there are significant differences between infants' and adults' experiences, it plausibly matters, both intrinsically and for explanatory purposes, that infants and adults share some distinctively wakeful experiences. For instance, a shared 'emotional life specific to intersubjective relationships', involving interactions such as an infant's 'communicating in humorous ways with other persons', seems to be important for learning and development (Trevvarthen and Reddy 2007, pp.41-43). There is at least a question whether we could make sense of such intersubjectivity, on the assumption that the basic point of view which is distinctive of wakeful experiences, and which conditions those experiences in fundamental respects, is not shared between infants and adults. Assessing this question would require detailed discussion of intersubjectivity and shared experience across distinct points of view, but I take it there is some motivation here for seeking an account of wakeful consciousness which, like the relevant folk notion of being conscious, applies to both infants and adults.

Turn now to what wakeful consciousness explains. Consider again Soteriou's proposal that 'various acts, activities and actions ... are made possible by ... the sort of stable epistemic orientation that comes with this temporal point of view' (p.16). This explanation of acts, activities and actions depends on the way in which the conscious temporal point of view puts you in a position to know about the present and its relations to the past and future. As a result, it depends on the more general idea that consciousness is a source of knowledge. In other work, Soteriou (2013) argues that occurrence in the stream of consciousness plays an important role in making possible our knowledge of the present—a role that non-conscious states could not play. But presumably this specific explanation of our knowledge of the present nonetheless rests on, rather than explaining, the more general idea that consciousness is a source of knowledge.

This raises the possibility that a full account of the explanatory role of wakeful consciousness will need to address problems that have been the more traditional focus of philosophical discussions of dreaming and wakeful consciousness—problems about how the latter could be a source of knowledge, if it provides no sure sign that it is wakeful consciousness rather than dreaming. These problems are often addressed by appeal to very general connections between wakeful experiences and knowledge, connections which distinguish wakeful experiences from dreams in epistemically significant respects. This may generate a tension with any attempt to identify the state of wakeful consciousness with a specific epistemic achievement, such as the temporal point of view. For if understanding the epistemic role of wakeful consciousness requires that wakeful consciousness is already distinguished from dreaming by a more general connection with knowledge, the state of wakeful consciousness may be better captured in terms of this general connection with knowledge than in terms of such a specific epistemic achievement.

Sections III and IV briefly explore the prospects for such a general epistemic account of wakeful consciousness. I will suggest that an account along these lines may be supported by the fact that it is consistent with my working hypothesis about immediate awareness, and with our attitudes to sleepwalking and infant consciousness.

III

Philosophers appeal to a variety of conceptual or otherwise very general connections between consciousness or experience and justification or knowledge.⁶ In each case, we could ask whether the connection is best understood in terms of *wakeful* consciousness, and whether this generates a tension with identifying the state of wakeful consciousness in terms of a more specific epistemic achievement. For concreteness, I will focus on a particular strand in this literature which exploits Barry Stroud's notion of an indispensable connection between experiences and the knowledge they make possible.

According to Stroud's reading of the *First Meditation*, when Descartes says 'there are never any sure signs by means of which being awake can be distinguished from being asleep', this conclusion depends on two assumptions. First, Descartes assumes a conception of sensory experience on which all such experiences can be understood independently of their being a source of knowledge about one's perceptible environment—thus, as he later explains, 'every sensory experience I have ever thought I was having while awake I can also think of myself as sometimes having while asleep' (Descartes 1641/1984, p.53). Secondly, Descartes 'is considering only knowledge based on the senses alone'.⁷ Together these assumptions support a 'valid' argument that you do not know whether you are awake (Stroud 2009, pp.560-561).

Stroud accepts that knowing you are not dreaming is a 'reasonable requirement' for perceptual knowledge (p.562), and he argues that some knowledge must be based on the senses alone, if we are to know anything about the non-psychological world. Accordingly, in order to make such knowledge intelligible in the face of Descartes' challenge, we must reject his first assumption: our basic conception of some of the sensory experiences one has while awake,

⁶ In many cases, this falls under the broad heading of 'internalism' about justification or knowledge. See Feldman and Conee 2001 for discussion and references.

⁷ In particular, he is not considering the non-sensory knowledge that God is not a deceiver which he exploits in the *Sixth Meditation*.

rather than dreaming, must treat them as a source of knowledge about the perceptible environment. This solution takes our claim to perceptual knowledge for granted, rather than vindicating it. But Stroud suggests that this solution does not beg the question against Descartes' challenge, because the epistemic conception of sensory experience is indispensable, in the sense that without it we would be unable to make intelligible not only knowledge of the non-psychological world, but also the aspects of our psychology which Descartes' argument grants—viz., that one has certain sensory experiences and corresponding beliefs purportedly about the environment (pp.566-569).

To see why one might think that an epistemic conception of experience is indispensable in that sense, consider perceptual demonstrative beliefs. On the face of it, if someone uses a perceptual demonstrative expression such as 'that piece of paper', you can know what the expression refers to, and so understand it, only by experiencing the object in question (Campbell 2002). Similarly, we can make intelligible the idea that someone understands or believes a proposition expressed by a perceptual demonstrative, only if we take her to know what it refers to through experiencing the relevant object. Johannes Roessler argues on those grounds that 'ascribing perceptual demonstrative beliefs to oneself and others commits one to thinking of experience as a source of knowledge' (2009, p.1037).

Stroud's epistemic conception focuses on propositional aspects of experience: 'perceiving that such-and-such is so', where this entails possessing relevant concepts and so capacities which we might be loath to ascribe to infants; for example, a capacity to 'recognize certain conditions as making it appropriate to judge or accept or endorse such-and-such as true', that is, 'to take certain considerations as reasons in favour of making such a judgement or believing such-and-such' (2009, p.566). But the basic structure of this way of making experience's epistemic role intelligible does not require that the indispensable connection between experience and propositional knowledge be constitutive. Roessler proposes instead that the indispensable connection is merely explanatory:

[T]he explanatory connection between experience and knowledge is primitive in the following sense. Our concepts of experiencing objects (in the various modalities) are themselves epistemic concepts, capable of providing adequate and irreducible explanations of how you know what you know when you see or hear something.⁸

Roessler 2009, pp.1032-1033

Given this way of employing Stroud's notion of indispensability, it may be indispensable that experiences are conceived partly in terms of the explanations they provide of relatively sophisticated forms of perceptual knowledge, without those experiences being conceived as unique to creatures capable of those forms of knowledge.

Of course, far more than I have said would be required in order to show that this conception is indispensable. Moreover, this is just one of many ways of interpreting and responding to Descartes' challenge, and of understanding perceptual knowledge. But the above provides one example of a broader approach. This broader approach takes the epistemic role of conscious perception to depend on a conception in which it is primitive (or otherwise a very general matter) that conscious perception explains knowledge or justified belief about the environment.

⁸ Roessler glosses 'irreducible' as follows: 'Their adequacy does not depend on an account of how experience of objects helps to meet certain entirely general conditions of knowledge, as identified by a philosophical theory—conditions such as justification or reliability' (p.1033).

The phrase ‘conscious perception’ can be used to draw two relevant contrasts with dreams: dreams are neither perception nor an aspect of wakeful consciousness. The relevant element of our conception might distinguish between the experiences Descartes has ‘while asleep’ and ‘while awake’ in terms of either contrast or both. This element of our conception does seem to involve some notion of consciousness, since it does not apply to perception in blindsight patients: blindsight does not, on the face of it, constitute a source of knowledge in the way in which conscious perception does (Roessler 2009). But the notion of consciousness which distinguishes conscious perception from blindsight might not be *wakeful* consciousness: the crucial distinction might be between dreams and some more generically ‘conscious’ form of perception—call it ‘perceptual experience’.

One reason to doubt that the distinction is drawn only in terms of this notion of perceptual experience lies in the attitude to sleepwalkers I mentioned in section I: despite having perceptual experiences and experiences of cognition, emotion, motivation and goal-directed activity, sleepwalkers are assumed not to act intentionally. This suggests that, even though they include perceptual experiences, the sleepwalker’s experiences may be understood as analogous to dreams, in that these experiences do not put the sleepwalker in a position to know what she is doing—to know that ‘I am thrusting this knife’, say.

There are of course competing explanations of our attitude to sleepwalking. For example, one might claim that sleepwalkers are assumed not to have experiences at all; they are assumed to be analogous to blindsight patients. But this suggests that, on discovering Zadra et al.’s evidence of ‘phenomenological experiences’ during somnambulism (p.288), one should revise the assumption that sleepwalkers do not act intentionally. I think that would be hard to accept.

One might appeal instead to the idea that sleepwalkers cannot act for a reason. But that raises the question why the ‘underlying logic’ motivating a sleepwalker’s behaviour (Zadra et al. 2013, p.288) does not constitute her reason; even if we grant that it does not, this is something a competing explanation would need to explain independently of any assumptions about the general epistemic role of wakeful consciousness.

Alternatively, one might appeal to the idea that, through no fault of their own, sleepwalkers characteristically suffer from ‘impaired judgement’ (Zadra et al. 2013, p.285). Perhaps this explains why they are not held responsible, independently of any assumptions about the general epistemic role of wakeful consciousness. For instance they lack a specific capacity to reflect on what they are doing.⁹ However, acting with impaired judgement or unreflectively is consistent with acting intentionally. So if we want to take seriously the assumption that sleepwalkers do not act intentionally, there is some advantage to understanding a basically epistemic conception of conscious perceptual experience in terms of wakeful consciousness.

From the perspective of this conception, specific epistemic achievements such as the temporal point of view may be integral to the particular realisation of wakeful consciousness found in human adults, but wakeful consciousness itself is to be identified in terms of a more general epistemic role: wakeful consciousness explains perceptual knowledge or justified perceptual belief.

⁹ In Soteriou’s terms, the capacitation of unimpaired judgement might be associated with being awake, rather than with wakeful consciousness in particular.

It bears emphasis that, consistent with this epistemic conception of wakeful consciousness, someone who is wakefully conscious may experience an object of perception while other conditions do not allow her to form knowledge or justified belief about it. For example, suppose that infants lack conceptual capacities required for these epistemic achievements. That is consistent with identifying infants' wakeful consciousness in terms of the fact that experiences within it are of a kind which explains perceptual knowledge or justified belief in those with the requisite conceptual capacities. One corollary is that, identified in this way, the state of wakeful consciousness can occur in infants whether or not they are capable of the epistemic achievements in terms of which Soteriou identifies that state. So this approach to wakeful consciousness differs substantively, and perhaps extensionally, from Soteriou's.

Wakeful consciousness involves not only perceptual experience but also various non-perceptual experiences. So presumably an epistemic conception of wakeful consciousness should not be restricted to its role in explaining knowledge about perceived objects. In section IV, I will suggest that wakeful consciousness is also characterised by a distinctive role in explaining knowledge about one's experiences themselves. In addition, I will make a tentative proposal about what might ground the distinctive epistemic roles of wakeful consciousness. The epistemic conception I have described is silent on the question *why* wakeful experiences are a source of knowledge while the sleepwalker's experiences are not, but it does not follow that this epistemic difference is ungrounded.

IV

O'Shaughnessy claims that one knows about one's wakeful experiences in virtue of the 'rational agency' one exercises over them (2000, p.226). When you do something for a reason, you are in a position to know what you are doing under a description—an intentional description—which relates what you are doing rationally to that reason (cf. Anscombe 1957).¹⁰ O'Shaughnessy takes autonomous rational control over one's experiences to give wakeful consciousness 'pellucidity'—roughly, a way of making sense in terms of what you know you are doing—and he takes such knowledge to be the hallmark of the state of wakeful consciousness (p.107). For example, wakeful experiences differ from dreams in this respect (p.90).

My proposal is that wakeful consciousness is identified in terms of its role in explaining two forms of knowledge: perceptual knowledge and a distinctive form of knowledge about one's experiences which, following O'Shaughnessy, I will characterise as agential knowledge. This raises a challenge: how could these two distinct epistemic roles identify one relatively unified state of wakeful consciousness?

Since both O'Shaughnessy himself and a rich Kantian tradition connect autonomy and self-knowledge with the capacity for knowledge in general, we might hope to exploit the notion of autonomy in a unified epistemic conception which identifies wakeful consciousness in terms of its role in explaining perceptual knowledge and agential self-knowledge, but which treats both forms of knowledge together. However, my aims are unlike O'Shaughnessy's, in that he is concerned only with wakeful consciousness 'in the self-conscious' (2000, p.226), where the self-conscious are capable of acting intentionally, or for what they take to be reasons. I am

¹⁰ For other relevant discussion of this form of self-knowledge, see (e.g.) Moran 2001, O'Brien 2007, and the essays in Roessler and Eilan 2003.

aiming for a conception of wakeful consciousness with a broader application, one that captures the attitudes to infant consciousness mentioned in section II. So I want to try to understand how there could be a state of wakeful consciousness that is identified in terms of its role in explaining both perceptual knowledge and agential self-knowledge, but that is relatively unified independently of any connections between these forms of knowledge which come only with autonomy and the associated attitudes to reasons.

My tentative suggestion is that the epistemic role of wakeful consciousness, as a source of both perceptual knowledge and agential self-knowledge, may be grounded at least partly in the control of attention. Attention to perceptible objects and features makes a central contribution to perceptual knowledge (Campbell 2002; Roessler 2009). The control of attention is not an exclusively intentional phenomenon, but it is exploited in intentional action (Wu 2014), and as a result contributes to agential knowledge of the experiences and other actions so controlled.

One criticism of O'Shaughnessy's claim that one has agential knowledge of one's wakeful experiences turns on the thought that, although attention may be active, wakeful perceptual experiences themselves are 'passive' (Crowther 2018, p.253).¹¹ Against this, we can understand agential knowledge of one's experiences by reference to William James' definition of attention as a 'focalization, concentration of consciousness' (1890/1950, p.403; see also Stazicker 2011). One example James discusses under this heading is making an object in peripheral vision 'more distinct' by turning your gaze to it (p.437). This occurs partly because the spatial resolution of visual processing is highest at the fovea and lower away from the centre of the eye. High resolution enables the visual system to discriminate, and so a person to experience, features of a scene which are defined at high spatial frequencies—for instance fine patterns on a surface and the details of edges. Recent work shows that endogenously controlled covert attention, which involves no movement of the head or eye, replicates this effect (Barbot and Carrasco 2017).

In the covert case, you do not achieve this effect on visual experience by doing anything else intentional, such as turning your gaze, but James' definition nonetheless provides a way of understanding this as intentional action. The 'focalization, concentration of consciousness' is a familiar experience, and indeed James introduces his definition with a comment that 'Everyone knows what attention is' (p.403). So the 'focalization, concentration of consciousness' can serve as an intentional description under which you know what you are doing. You might use various other expressions if asked—for instance 'I'm looking at it'—but I take it that in at least some cases, this could be unpacked by reference to the familiar experience James described. This experience involves getting a better view of the attended object, and that is what you do intentionally when you look at something. In this way, intentionally controlled attention is a source of both perceptual knowledge and knowledge of the experience so controlled.¹²

¹¹ Crowther exploits this in a counterexample involving someone who has wakeful visual experiences despite doing nothing (2018, p.272). Crowther also suggests that lucid dreaming may be a counterexample to O'Shaughnessy's claim that agential knowledge of one's experiences is the hallmark of wakeful consciousness. At least as lucid dreams are typically characterised, the dreamer knows her dream experiences for what they are and exercises intentional control over them. However, Stephen LaBerge, who is responsible for much of the work on lucid dreaming, describes it as being 'awake' in one's dreams (1985, p.2). It may be that lucid dreams are unusual precisely in that they involve central aspects of wakeful consciousness occurring during sleep.

¹² Taking this visual effect to constitute attention does not imply that all attention is identical with such effects. For example, many psychologists accept that attention takes various forms (Taylor 2015). However, Wu (2014) proposes a counterexample to the identification which might seem to show the experience of increasing visual resolution does not constitute attention: adjusting an optometrist's lenses (cf. Watzl 2011 for a related

Unlike O'Shaughnessy, I do not claim that every wakeful experience is under intentional control. Rather, wakeful consciousness puts you in a position to achieve agential knowledge of your wakeful experiences because it makes such control available.¹³ Moreover, the control of attention is not exclusively an intentional phenomenon, so this form of knowledge is grounded in the exercise of a broader capacity.

Non-intentional control of attention is often sensitive to one's individual attitudes and goals, in a way which seems to make tenable the idea that exercising non-intentional control and exercising intentional control of action ground the same state of wakeful consciousness. For example, normal vision involves sequences of saccades of which you are unaware under any intentional description, but when you look at a painting, they are controlled by narrative elements of the painting in a way that depends on individual knowledge and expertise (Quiñones-Galindo and Pedreira 2011). The effect of covert attention I described above is also sensitive to one's individual goals: endogenously controlled covert attention has this effect only when the effect is useful for the task at hand (Barbot and Carrasco 2017). In infants, looking-time is used to measure individual preferences. For example, 3-month-olds show a systematic preference for faces of their own race (Liu et al. 2015).

My suggestion that control of attention grounds the epistemic role of wakeful consciousness does not imply that there is no control of attention while one is not wakefully conscious. It implies only that there is a relevant difference between the control of attention during wakeful consciousness and other states. For instance, the control of attention during somnambulism seems to take unusual forms: 'a greater or smaller part of the personality takes command and dictates the general behavior, the rest of the normal personality ... having no influence on conduct' (Podolsky 1961). There is some evidence that saccades during REM sleep reflect attention to the contents of dreams (Hong et al. 1995). If so, this form of attentional control is unlike control during wakeful consciousness precisely in that it is controlled by the contents of dreams.

By identifying wakeful consciousness in terms of an epistemic role which is grounded in the control of attention, we can also understand the experience of waking up in a way that is consistent with my working hypothesis that awareness of waking up is immediate—that when you experience waking up, and in that way come to believe that you are awake, this is not aptly reconstructed as a conclusion justified or informed by an implicit premise that your experience or awareness has certain distinctive contents or apparent objects. When you experience waking up, you experience taking control of attention, and so being in a position to know, but this experience is not distinctive in virtue of your being in a position to know any distinctive contents or objects. For example, if as you wake you take intentional control of attention, what

counterexample). This can improve visible detail and does not constitute attention. One problem with such counterexamples is that they involve changes in the blurriness of vision. By contrast, when covert attention increases spatial resolution this does not produce a more focused retinal image. As a result, the associated phenomenology is quite different from the phenomenology in the counterexamples. In addition, the counterexamples lack the phenomenology of mental action.

¹³ This is consistent with there also being other ways of coming to know about your experiences—for instance with your coming to know about the contents of experience non-agentially by attending to its objects. But my proposals here are probably inconsistent with the following longstanding view (Caston 2002 traces it to Aristotle): just in virtue of what it is for an experience to be a conscious experience, someone having a conscious experience with a certain character is (non-agentially) aware of its having that character. See Stazicker 2018 for an argument that, given one promising way of understanding the phenomenology of visual experience, some visual experiences have a specific character of which their subject cannot be aware.

you know you are doing may involve a vast variety of mental and bodily actions, perceptible objects and thoughts.

One attractive feature of Soteriou's account of wakeful consciousness, in terms of a temporal point of view, is that your occupying this point of view entails that specific experiences are occurring in the stream of consciousness, but nonetheless constitutes a state which can explain the nature of those occurrences. This is because the point of view is a persisting, stable orientation to one's past and future, a state which does not consist just in the fact that certain experiences are occurring. Soteriou compares a state which consists only in the fact that certain experiences are occurring with the state of being busy:

The fact that a subject is busy doesn't explain the fact that she is actively engaged in the things that make her busy. She is not actively engaged in those things because she is busy, rather she is busy because she is so engaged.

Soteriou, p.3

I have outlined a conception of wakeful consciousness on which this state consists only in the fact that certain experiences are occurring. However, on this conception, wakeful consciousness is identified in terms of the fact that wakeful experiences explain perceptual knowledge and a distinctive form of knowledge about oneself. So wakeful experiences are identified in a way that contributes to explaining whatever the relevant states of knowledge, in turn, explain. In particular, they are identified in a way that contributes to explaining the nature of further occurrences in the stream of consciousness. For example, episodes of conscious perception are identified in a way that explains the possibility of mental and bodily activities which are intentional under descriptions involving perceived objects. If my further suggestion that the epistemic role of wakeful consciousness is grounded in the control of attention is correct, then there is also another respect in which the state of wakeful consciousness explains the nature of occurrences within the stream of consciousness, even though wakeful consciousness consists only in these occurrences: their being occurrences of the kind which constitute wakeful consciousness is grounded in the fact they are under your control.

I have argued that this way of understanding wakeful consciousness may have some advantages with respect to the experience of waking up, folk attitudes to infant consciousness, and the place of wakeful consciousness in traditional epistemological problems. However, both my proposal that wakeful consciousness might be identified in terms of its epistemic role, and my suggestion about how this role might be grounded, have been presented only in broad outline. A great deal more work would be needed in order to defend them.¹⁴

Department of Philosophy
Philosophy Building
King's College London
Strand
London WC2R 2LS

¹⁴ Thanks to Matthew Soteriou for several generous and illuminating discussions of this material, and to Guy Longworth for helpful comments on an earlier draft.

References

- Anscombe, G.E.M. 1957: *Intention*. Oxford: Blackwell.
- Aristotle, 1991: *The Complete Works of Aristotle*, ed. J. Barnes. Princeton: Princeton University Press.
- Barbot A., & Carrasco M. 2017: 'Attention modifies spatial resolution according to task demands'. *Psychological Science*, 28(3): 285-296.
- Broughton, R., Billings, R., Cartwright, R., Doucette, D., Edmeads, J., Edwardh, M., Ervin, F., Orchard, B., Hill, R. & Turrell, G. 1994: 'Homicidal somnambulism: A case report'. *Sleep*, 17(3): 253–264.
- Campbell, J. 2002: *Reference and Consciousness*. Oxford: Clarendon Press.
- Caston, V. 2002: 'Aristotle on consciousness'. *Mind*, 111(444): 751–815.
- Crowther, T. 2018: 'Experience, dreaming and the phenomenology of wakeful consciousness'. In F. Dorsch & F. Macpherson (eds.), *Phenomenal Presence*. Oxford, OUP.
- Descartes, R. 1984: *The Philosophical Writings of Descartes*, ed. and trans. J. Cottingham, R. Stoothoff and D. Murdoch, Volume 2. Cambridge: Cambridge University Press.
- Droit-Volet, S. 2016: 'Development of time'. *Current Opinion in Behavioral Sciences*, 8: 102–109.
- Feldman, R. & Conee, E. 2001: 'Internalism defended'. *American Philosophical Quarterly* 38(1): 1-18.
- Hobson, J.A. 1988: *The Dreaming Brain*. New York: Basic Books.
- Hong, C. Gillin, C. Dow, B., Wu, J. & Buchsbaum, M. 1995. 'Localized and Lateralized Cerebral Glucose Metabolism Associated With Eye Movements During REM Sleep and Wakefulness: A Positron Emission Tomography (PET) Study'. *Sleep*, 18(7): 570-580.
- James, W. 1890/1950: *The Principles of Psychology*, Volume One. New York: Dover Publications.
- LaBerge, S. 1985: *Lucid Dreaming*. Los Angeles: Jeremy P. Tarcher.
- Liu, S., Xiao, N., Quinn, P., Zhu, D., Ge, L., Pascalis, O. & Lee, K. 2015: 'Asian infants show preference for own-race but not other-race female faces: the role of infant caregiving arrangements'. *Frontiers in Psychology* 6, 593 1-8.
- McCormack, T. & Hoerl, C. 2017: 'The development of temporal concepts: Learning to locate events in time'. *Timing & Time Perception*, 5: 297–327.
- Moran, R. 2001. *Authority and Estrangement: An essay on self-knowledge*. Princeton, NJ: Princeton University Press.

- Nagel, T. 1974: 'What is it like to be a bat?'. *Philosophical Review*, 83: 435–456.
- Nazzi, T., Bertoncini, J., & Mehler, J. 1998: 'Language discrimination by newborns: Towards an understanding of the role of rhythm'. *Journal of Experimental Psychology: Human Perception and Performance*, 24: 756–766.
- O'Brien, L. 2007: *Self-Knowing Agents*. Oxford: OUP.
- O'Shaughnessy, B. 2000: *Consciousness and the World*. Oxford: OUP.
- Podolsky, E. 1961: 'Somnambulistic homicide'. *Medicine, Science and the Law* 1(3): 260-265.
- Quiñan Quiroga, R. & Pedreira, C. 2011. 'How do we see art: an eye-tracker study'. *Frontiers in Human Neuroscience*, 5(98): 1-9.
- Revonsuo, A. 2006: *Inner Presence: Consciousness as a Biological Phenomenon*. Cambridge, MA: The MIT Press.
- Revonsuo, A. & Salmivalli, C. 1995: 'A content analysis of bizarre elements in dreams'. *Dreaming*, 5(3): 169-187.
- Roessler, J. 2009: 'Perceptual experience and perceptual knowledge'. *Mind*, 118(472): 1013-1041.
- Roessler, J. & Eilan, N. 2003: *Agency and Self-Awareness*. Oxford: OUP.
- Soteriou, M. 2013: *The Mind's Construction: The Ontology of Mind and Mental Action*. Oxford: Oxford University Press.
- Stazicker, J. 2011: 'Attention, visual consciousness and indeterminacy'. *Mind & Language*, 26(2): 156–184.
- Stazicker, J. 2018: 'The visual presence of determinable properties'. In F. Dorsch & F. Macpherson (eds.), *Phenomenal Presence*. Oxford, OUP.
- Stroud, B. 2009: 'Scepticism and the senses'. *European Journal of Philosophy*, 17(4): 559–570.
- Taylor, J.H. 2015: 'Against unifying accounts of attention'. *Erkenntnis* 80(1): 39-54.
- Trevarthen, C. & Reddy, V. 2007: 'Consciousness in infants'. In M. Velmans (ed.), *The Blackwell Companion to Consciousness*. Oxford: Blackwell.
- Watzl, S. 2011: 'Attention as structuring of the stream of consciousness'. In C. Mole, D. Smithies and W. Wu (eds.), *Attention: Philosophical and Psychological Essays*. Oxford: OUP.
- Windt, J.M. 2013: 'Reporting dream experience: Why (not) to be skeptical about dream reports'. *Frontiers in Human Neuroscience*, 7, doi:10.3389/fnhum.2013.00708.

Wu, W. 2014: *Attention*. New York: Routledge.

Zadra, A., Desautels, A., Petit, D., Montplaisir, J. 2013: 'Somnambulism: clinical aspects and pathophysiological hypotheses'. *The Lancet Neurology*, 12: 285-94.