



To Believe, or Not to Believe – That is Not the (Only) Question: The Hybrid View of Privacy

Lauritz Munch¹  · Jakob Mainz¹

Received: 3 January 2022 / Accepted: 14 January 2023
© The Author(s), under exclusive licence to Springer Nature B.V. 2023

Abstract

In this paper, we defend what we call the ‘Hybrid View’ of privacy. According to this view, an individual has privacy if, and only if, no one else forms an epistemically warranted belief about the individual’s personal matters, nor perceives them. We contrast the Hybrid View with what seems to be the most common view of what it means to access someone’s personal matters, namely the Belief-Based View. We offer a range of examples that demonstrate why the Hybrid View is more plausible than the Belief-Based View. Finally, we show how the Hybrid View generates a more plausible fit between the concept of privacy, and the concept of a (morally objectionable) violation of privacy.

Keywords Privacy · The Right to Privacy · Perception · Belief · Justification

1 Introduction

For at least five decades, philosophers and legal scholars have struggled to define the notion of ‘privacy’ and the, perhaps, related notion of a ‘moral right to privacy’.¹ However, there is still no clear convergence on how these notions should be defined. Broadly speaking, the privacy literature is divided between theories that hold that

¹The ‘modern’ discussion of privacy is often said to begin with (Warren & Brandeis 1890). For more recent discussion and overview, especially of the philosophical literature, see (Thomson 1975); (Marmor 2015); (Nissenbaum 2009); (Solove 2010). Throughout the paper, we are exclusively concerned with ‘informational privacy’.

✉ Lauritz Munch
lauritzmunch@gmail.com

Jakob Mainz
jakob-mainz@hotmail.com

¹ Aarhus University, Aarhus, Denmark

privacy should be defined in terms of control, and those that hold that it should be defined in terms of access. Control theorists argue, roughly, that an individual has privacy to the extent that she can *control* the access to her personal information.² Access theorists on the other hand argue, again roughly, that an individual has privacy to the extent that others do not actually access her personal information.³

In the ongoing debate between control theorists and access theorists, surprisingly little has been said about what it means to access someone else's personal information. In this paper, we try to clarify that. Spelling out what it means to access someone else's personal information can naturally be seen as a way of fleshing out the access theory, because it shows what an access theorist must say about which actions people can perform to diminish other's privacy. Interestingly, however, spelling out what it means to access someone else's personal information is also of crucial relevance for some control theorists. The reason is that on some control theories, A's privacy is a function of the control they have over B's *access* to A's personal information.⁴ Thus, spelling out what it means to access someone's personal information will also have wide-reaching implications for the views of some control theorists.⁵ Generally, however, we will bracket the access versus control debate given our interest in fleshing out the notion of 'access'. Access-theorists can thus read our paper as an account of what privacy *is*, whereas control theorists can read our paper as an account of one of the ingredients in a full 'control over access'-view, to wit, the access-part (and thus discount that we, for presentational purposes, write as if a version of the access account is correct).

In the literature, there is one dominant view of what it means to access someone else's personal matters. We shall call this view the 'Belief-Based View' of privacy:

² See for instance (Van Den Haag 1971); (Parker 1974); (Gross 1971); (Fried 1968); (Beardsley 1971); (Inness 1992); (Menges 2021).

³ See for instance (Thomson 1975); (Macnish 2018); (Gavison 1980); (Allen 1988).

⁴ It is an open question how much control A must have here to enjoy privacy on such a view, given that control might seem to admit of degrees. One recent proposal by Menges (2021) says that A has control over access to information either when it is true that (1) information doesn't flow or, (2) if information flows, A is the proper source of this flow. We thank a reviewer for asking us to clarify this.

⁵ As an example, consider this quote from the prominent control theorist Beate RöSSLer: "If privacy in general means being able to control 'access' to one's own personhood, then – as we saw earlier – this must in one respect be understood and interpreted as control over what other people can *know* about oneself." (Rössler 2005: 111). RöSSLer is a good example of a control theorist whose view will be affected by our argument, because she holds that informational privacy is a matter of having control over the access to personal information. She believes that what it means to access some information *p* about someone else is to know that *p*. As we shall argue, this is not fully adequate. Although less clear, Marmor (2015: 4), another control theorist, also seems to think that privacy is about having control over the ways in which others come to *know* things about us. See (Mainz and Uhrenfeldt 2021a) for a helpful overview of control views.

The Belief-Based View Individual A has privacy regarding (a relevant)⁶ proposition p and with respect to individual B iff B lacks epistemically warranted belief that p.⁷

Accordingly, the Belief-Based View holds that someone having a warranted belief about your personal matter(s) is both a necessary and sufficient condition for you losing privacy. On this general view, it is unspecified what exactly counts as a warranted belief. David Matheson's so-called Broad Ignorance Theory (BIT) is an instance of the Belief-Based View that focuses exclusively on *knowledge*. According to Matheson, an individual A has informational privacy relative to another individual B and to a personal fact p about A if and only if B does not know p.⁸ To wit, the lack of *knowledge* of someone else's personal matters is both a necessary and sufficient condition for that individual to have privacy. Matheson's BIT is an instance of the Belief-Based View because knowledge is plausibly one type of warranted belief. Recently, prominent theorists have criticized Matheson's BIT for focusing exclusively on knowledge. They claim that weaker types of warranted beliefs can also constitute privacy diminishment, and that the degree to which privacy is diminished depends in part on the strength of the epistemic state.⁹ Nevertheless, they all subscribe to some version of the Belief-Based View, just as Matheson does.¹⁰

⁶ We use 'relevant' as a place-holder to capture the point that not all matters seem relevantly 'private' or even 'personal' (as some would take privacy to be about). We set this important question aside here but see (Manson and O'Neill 2007).

⁷ One might drop the "epistemic warrant"-requirement. On such a view, one might say that A loses privacy regarding p and with respect to B if B has a vivid dream and wakes up believing that p albeit without having any justification (what we term 'warrant') for this. Few, if any, endorse such a view. By contrast, some *do* endorse a stronger view according to which a privacy loss also requires that the belief is *true*, cp. (Matheson 2007); (Kappel 2013); (Fallis 2013). By contrast, (Allen 1988: 21–22) maintains that one can lose privacy regarding falsehoods. Notice also that this formulation is supposed to be neutral on what types of beliefs that count, so we might interpret 'belief' broadly as to both include, say, dormant, occurrent and tacit belief. cf. for instance (Peels 2016). One might also drop the "belief"-requirement. On such a view, one might say that A loses privacy regarding p and with respect to B if B has propositional justification that p but does not believe that p. This seems to be the view that Fallis has in mind when he writes: "Second, there are cases where privacy seems to be diminished even though there is no belief about the fact at all. For instance, it could be that, when Cliff tells him that Norm has a tattoo on his butt, Sam cannot believe his ears." (Fallis 2013: 165). But note that if one drops the belief-requirement, the resulting view is still underinclusive and needs to be accompanied by a 'no-perception-requirement' as we lay out below. In effect, a Hybrid-View close to the one we defend in this paper will emerge – the only difference being that now the belief-requirement is missing.

⁸ (Matheson 2007: 259).

⁹ See (Kappel 2013); (Blaauw 2013); (Matheson 2007); (Munch 2021).

¹⁰ Different versions of the Belief-Based View are widely accepted in the literature, although many authors seem only to adopt the view implicitly. For instance, William Parent writes: "[p]rivacy is the condition of not having undocumented personal *knowledge* about one possessed by others." [emphasis added] (Parent 1983: 269). We can see that Parent adopts the Belief-Based View, because he thinks that having privacy is a matter of others not having undocumented *knowledge* about oneself (knowledge is uncontroversially an instance of a warranted belief). Similarly, Ruth Gavison writes: "Our interest in privacy, I argue, is related to our concern over our accessibility to others: the extent to which we are *known* to others, the extent to which others have physical access to us, and the extent to which we are the subject of others' attention." [emphasis added]. (Gavison 1980: 483). Just like Parent, Gavison essentially holds that privacy is a function of other's *knowledge* of oneself, and thus she adopts the Belief-Based View. We argue,

The reason why the Belief-Based View is false is that – in addition to someone forming epistemically warranted beliefs - there is another way in which one can lose privacy. Specifically, we argue that one can also lose privacy when others *perceive* one's personal matters, even when no beliefs are formed. So, while absence of warranted belief is a necessary condition for having privacy, it is not a sufficient condition. This leads us to defend the 'Hybrid View'. This view holds that there are two each necessary, jointly sufficient conditions for having privacy: absence of warranted belief and absence of perception. To wit, privacy amounts to the absence of warranted belief, in conjunction with the absence of perception. Consequently, if someone either forms a warranted belief about A, or perceives A's personal matters, or both, then A's privacy is diminished.¹¹

Our claim is purely conceptual, but we also demonstrate the normative importance of the Hybrid View. The Belief-Based View struggles to correctly identify (morally objectionable) privacy violations in certain cases without subscribing to the implausible view that a loss of privacy is *not* necessary for a privacy violation. We show how the Hybrid View avoids this challenge.

The paper is structured as follows. In section II, we discuss and reject the Belief-Based View by showing that absence of warranted belief is not a sufficient condition for having privacy. In section III, we explain why non-perception is a necessary condition for privacy. In section IV, we present and defend the Hybrid View. In section V, we show how the Hybrid View has attractive implications when used as a basis for conceptualizing 'privacy violations' (or privacy wrongs). Section VI concludes.

2 Why Absence of Warranted Belief is not a Sufficient Condition for Having Privacy

In this section, we argue that the Belief-Based View of privacy fails to provide all the sufficient conditions for having privacy. According to this view, absence of warranted belief is both a necessary and sufficient condition for privacy. Simply put, the Belief-Based View holds that A's level of privacy is a function of other people's warranted beliefs about A. If B, for instance, knows p about A, then A's privacy is diminished (with regards to p). Furthermore, the Belief-Based View holds that A's privacy is *not* diminished if no one has a warranted belief about A.¹² To illustrate why the Belief-Based View has intuitive appeal, consider

differently from Gavison, that it is perception, not *attention*, that is relevant to privacy (it is possible, we think, to perceive something without *attentively* doing so).

¹¹ Some of the argumentative building blocks needed to establish the Hybrid View are already present in the literature. For instance, Don Fallis argues that non-belief *may* not be sufficient for having privacy, and he mentions *en passant* that perception is sufficient for losing privacy (Fallis 2013: 165). The claim we make in this paper is stronger than the one Fallis makes: We claim that absence of warranted belief and non-perception are each necessary, jointly sufficient conditions for having privacy. Furthermore, and in contrast to Fallis, we explain how our view relates to the control vs. access debate in the privacy literature, and we explain what the normative upshots of this view are.

¹² Some theorists have argued that privacy comes in degrees, such that A's privacy is diminished relative to the number of people who have access to A's information, the number of pieces of information others have access to, and the strength of the epistemic relation that others have to the information. For instance,

Testimony. C tells B that A has a mental illness. B, who did not previously believe that A has a mental illness, subsequently and justifiably believes that A has a mental illness due to C's assertion.

The Belief-Based View maintains that A loses privacy regarding the content 'A has a mental illness', with respect to B. This is because B moves from a state where belief in this content is absent in their mind, to a state of epistemically warranted belief in this content.

We grant that absence of warranted belief is a necessary condition for having privacy here (we say more in defense of this view in Section IV). But, *pace* the Belief-Based View, we do not think that absence of warranted belief is a sufficient condition for having privacy. If A can lose privacy regarding p, and with respect to B, even if B lacks warranted belief that p, it follows that absence of warranted belief is not a sufficient condition for being in a state of privacy. Here is a case establishing this point:¹³

Defeat. B X-rays A's safe and observes a nude photo of A that is kept in it. However, B is drunk and knows that they have a strong track record of hallucinating when drunk. B's background evidence therefore leads B to deem what they see a hallucination with no evidential value. However, B is mistaken and in fact accurately perceives the photo contained in the safe.¹⁴

In Defeat, A intuitively loses privacy regarding the information about what she looks like naked, and with respect to B. Yet, B forms no warranted belief about what A looks like naked. Nor does B form a belief about what the safe contains. Accordingly, absence of warranted belief is not a sufficient condition for having privacy.¹⁵ And if so, the Belief-Based View is false, because it holds that the absence of warranted belief is *both* a necessary and sufficient condition for having privacy. To salvage central aspects of the Belief-Based View, one may instead endorse:

The Belief and Justification-Based View Individual A has privacy regarding (a relevant) proposition p and with respect to individual B *iff* B lacks a belief that p *and* lacks justification for believing that p.¹⁶

A's privacy may be diminished more when B *knows* p, compared to when B merely has a justified belief that p. For the sake of simplicity, we bracket this issue. See (Kappel 2013); (Fallis 2013); (Blaauw 2013).

¹³ This case is inspired by a case from (Fallis 2013: 165).

¹⁴ Here one might object that Defeat is not best described as a case where B lacks belief regarding the photo, but that B instead has *conflicting beliefs*, cf. (Byrne 2016). Notice though, that this analysis presupposes a non-standard account of belief.

¹⁵ A somewhat similar case is discussed by (Powers 1996: 378); (Inness 1992: 63); (Johnson 1989: 161): A illicitly observes B's nude photo despite knowing beforehand what it looks like. Intuitively, there is a loss of privacy (as well as a violation of privacy), but this is not explainable by belief-acquisition, since no new beliefs are gained.

¹⁶ We thank a reviewer for suggesting this view and asking that we consider it.

The Belief and Justification-Based View strongly resembles the Belief-Based View. They differ in that the Belief and Justification-Based view presents two independent ways in which privacy might be lost, that is, via the acquisition of belief *or* via the acquisition of justification. This view thus contains all the elements in the original Belief-Based View but eschews the idea that belief is what fundamentally matters to privacy.¹⁷

It seems that the Belief and Justification-Based View fares better in dealing with Defeat. This is because it can be used to retort that even though B forms no warranted belief, he might nevertheless have been justified in doing so. And acquiring justification is - according to this view - sufficient for losing privacy irrespective of whether a belief is formed as a response to the justifying evidence. This view would then be able to capture Defeat-type cases in which B had misconstrued their background evidence and therefore had (contrary to what B judged) insufficient reason to regard their justification from perceptual experience as subject to defeat.

However, even if this view is an improvement to the Belief-Based View, we don't think it succeeds. To see why, we can distinguish *doxastic* and *propositional* justification. Roughly, when we ask about whether there is doxastic justification, we ask if a belief is appropriately justified by the available evidence. When we ask if there is propositional justification, we ask if a person would have been justified in believing something given their available evidence, regardless of whether they in fact did. Since B doesn't form a belief about A in Defeat, we cannot say that there is doxastic justification. To assess whether B has propositional justification, we might have to say more about the evidence they have available. Let's imagine that B has extremely compelling, but ultimately misleading background evidence suggesting that they are hallucinating. Despite their strong track record of hallucinating when drunk, in *this* instance their perceptual apparatus does not malfunction. But intuitively, an agent *shouldn't* trust their senses if they strongly suspect that they are malfunctioning. Another way to put the same point is that B's perceptual *justification* is subject to defeat by their background evidence. In this case, then, B wouldn't even be propositionally justified in forming a belief based on their perceptual experiences. Yet, it seems intuitive that privacy is lost regardless. Accordingly, the Belief and Justification-Based View cannot say that there is a loss of privacy in Defeat. Not even the absence of B having belief *and* justification that p is sufficient for A having privacy regarding p.

¹⁷ A further attraction of the Belief and Justification-Based View is that it can identify a sense in which privacy does not seem to be fully regained if B is presented with a defeater to their justification (and thus loses justification) but retains a true belief. According to this view, this is because a true belief is still a part of B's mental economy. We thank a reviewer for pointing us to this case. However, a downside of the Belief and Justification-Based View - besides the one we spell out below - is that it implies that A loses privacy with respect to B if B, based on nothing but a vivid dream, forms a true belief about some personal proposition p about A.

3 Why Non-perception is a Necessary Condition for Having Privacy

In addition to absence of warranted belief, there is a further necessary condition for being in a state of privacy: non-perception. This necessary condition holds that A has privacy regarding *p* and with respect to B *only if* B is not in a perceptual state regarding *p*.¹⁸ The plausibility of this view hinges partly on how we flesh out the notion of ‘perception’. Intuitively, and roughly, perception is a process that is facilitated by our senses, and paradigmatically involves seeing (visual experiences), but includes our other senses as well, such as smelling, touching, etc. There is a large and advanced literature on how precisely to understand perception, and how to delineate it from closely related notions such as, say, ‘cognition’ and ‘belief’.¹⁹ Even though we can afford to sidestep most of this literature and rely on commonsensical intuitions about what constitutes perception (thus, nothing here will presuppose a controversial view on what perception is), we want to say something about how one might delineate perception from other mental states. This makes sense given our aim of motivating non-perception in the context of privacy as a supplement to non-belief and non-justification-based views.

According to one promising and intuitive way of carving out what makes perception and perceptual states distinctive from other mental states, perception has a distinct functional profile.²⁰ On the specific view we shall assume, perceptual states are distinctively *stimulus-dependent*. This means that when somebody is in a perceptual state, a distinctive feature of this state is that it is caused and sustained by the ongoing presence of an external stimuli. For example, if there is a bird in front of A, and the presence of this bird, in the right way, causes A to have the visual experience of there being a bird, then A is in a perceptual state of perceiving the bird. Moreover, A ceases to be in the perceptual state of having the visual experience of a bird when they look away. Since the stimulus (the bird) is no longer within A’s visual field, A no longer has the perceptual (visual) experience, caused in the right way, of there being a bird.

Stimulus-dependence sets perceptual states apart from other mental states such as beliefs. It also sets perception apart from the property of having justification for a belief. As an example, imagine that A sees a bird in their visual field and therefore gains justification for there being a bird in front of them. A forms the belief that there is a bird in front of them. When A looks away from the bird, A may still be (and typically will be) justified in believing there is still a bird in front of them. This means that these states are not distinctively dependent upon a stimulus (the presence of the

¹⁸ One might worry that non-perception does not go far enough. Admittedly, there might be something to like about the view that whether privacy is instantiated depends on purely sub-personal processes that lies prior to perception (e.g., when our optic nerve is stimulated in certain ways, or when the nerve transmits information from the retina). We could call this view ‘non-sensation’ (as opposed to non-perception). We set these possible views aside since we do not believe that if somebody cultivated a number of free-standing but fully functioning optic nerves and placed them in a position where they were stimulated by, say, somebody’s private photos, that privacy would be lost in any meaningful sense.

¹⁹ See for instance (Phillips 2019); (Block 2014); (Tye 2006); (Raftopoulos and Müller 2006); (Schellenberg 2018); (Beck 2018).

²⁰ (Beck 2018).

bird within A's visual field) for their sustainment. The stimulus-dependent nature of perception will, as we will argue below, be helpful in clarifying if privacy turns upon perception over and above belief and justification.

It is important to state clearly that we do not take stimulus-dependence as a complete account of perception. Rather, it is meant as a partial view that should hopefully be intuitive enough and, most importantly, provides a blueprint for testing if some of that which seems distinctive about perception seems to matter for privacy. The reason why we opt for this strategy is that the nature of perception is itself a complicated and controversial question that engages philosophy as well as the empirical sciences.²¹ And given this, we want to remain maximally permissive in terms of understanding the nature of perception. Another way to put this point is that we want to claim that privacy requires the absence of *paradigmatic* forms of perception.

With that being said, we can indicate how we think about 'paradigmatic perception' in light of some choice-points that might be salient in the context of privacy. First, since the characteristic function of perception is to gain information about one's environment, perception is nicely motivated from a concern with 'informational privacy', as we take our more general focus to be here.²² In paradigmatic cases of accurate perception, the perceiving subject will gain information about their environment. But as many recognize, our perceptual faculties can also mislead (think of a case where one takes oneself to hear a child crying, but in fact there is none). Importantly, though, we are not claiming here that privacy can be lost when somebody 'perceives' something that is in fact not there (in fact, this case is better described as a form of hallucination).²³ Our concern will be accurate perception.

Kevin Macnish has recently argued that a loss of privacy requires not only that information is acquired, but that this information is being subject to semantic understanding (see Macnish 2020). Macnish uses this and other points to argue that when computers store and analyze information, privacy is not lost since computers lack semantic understanding of information. We're not entirely sure that Macnish is right, but if you agree with Macnish that losses of privacy require semantic understanding, this shouldn't prevent you from saying that privacy turns upon perception. After all, paradigmatic human perceptual states plausibly require semantic understanding (as is the case of paradigmatic human belief). This is because perceptual states, as with some other cognitive states that privacy scholars tend to care about (such as belief), are typically seen as having representational content. To illustrate this point, compare a person proficient in Russian and a person who is not, and think about their visual experience when they see Russian letters. It strikes us a quite plausible that their perceptual experiences differ. For instance, if A opens B's diary but find the language it is written in incomprehensible, we are confident in saying that A doesn't perceive what it conveys and that privacy is therefore not lost (at least not *qua* perception of

²¹ See (Siegel 2021) for an overview of the perception literature.

²² Some believe that there are distinctively non-informational senses of privacy (such as 'decisional' privacy). Nothing we say here excludes this possibility, and you need not endorse it to endorse our view.

²³ There is an interesting parallel here to those who say that one can lose privacy with regards to falsehoods, such as (Le Morvan 2015). We will set this delicate question aside and say that both proponents and opponents of the idea that privacy is veridical can accept that privacy concerns perception.

the information stored in the diary).²⁴ That is to say, he is incapable of perceiving the propositional content that the signs in virtue of being bearers of meaning may convey.

But we should allow that A perceives the signs on the pages, which is to say the proposition that there are signs written on a piece of paper. But this is also consistent with the semantic understanding-requirement as we can easily imagine that A understands that these are sign-letters. In that case, A has the visual experience with the semantic content that there are sign letters in his field of vision.

But isn't there such a thing as *non*-human perception, for instance artificial perception (when an artificial intelligence engages with information) or animal perception? And could such entities affect our privacy? Perhaps, but we are not going to deal with the thorny question of what sets apart human and non-human perception here, and neither do we have to since we merely want to claim that paradigmatic human perception (of private matters) may affect privacy. It seems intuitive enough that even if all these things should be classified as forms of perception, there must be substantive distinctions to be made within the class, perhaps along the lines of Macnish' proposal. And we are not committed to the idea that everything that might be classified as perception is relevant to privacy.²⁵

This is not to say that these questions are unimportant (to the contrary, they are both intriguing and important), but we do not need to settle them to justify a perception-component of an account of privacy. Moreover, even if we do not provide a full account of perception, our partial account based on stimulus-dependence is genuinely informative as it enables us to investigate the significance of perception in comparison with belief and justification.

With these things clarified, let's focus on how a perception-based view deals with Defeat - the case that caused problems for extant views. A perception-based view handles Defeat elegantly. Even though B has defeating background evidence, and so neither forms belief in response to their perceptual experiences nor gains justification from them, it is hard to deny that B *perceives* the contents of A's safe. As long as B is looking inside the safe, she is in a perceptual state sustained by the stimulus present in his environment (the safe). So, a perception-based view can identify the intuitive diminishment of A's privacy that occurs in Defeat, while neither the Belief-Based View nor the Belief and Justification-Based View can. It is natural to infer from this that non-perception is necessary for having privacy.

So, there is one type of case that can be accommodated by the view that non-perception is necessary for having privacy. A worry may be that this view itself is subject to counterexamples. Consider:

Somnambulist. A sleepwalks into B's room and 'sees' B's naked body.²⁶

²⁴ It is also important to see that Macnish' claim doesn't settle whether privacy turns upon non-perception. This is because many different states can have semantic content (for instance, perceptual states, belief states, emotional states, intentional states) and even if we accept a semantic restriction like Macnish's, we need to investigate which contentful states that matter to privacy.

²⁵ See (Elliot and Soifer 2014) for discussion of the case of animals and privacy. Notice, furthermore, that the challenge isn't uniquely faced by our view. It seems as sensible to ask if animals or some machines have functional equivalents of beliefs that are sufficiently like paradigmatic human beliefs to affect privacy.

²⁶ We thank an anonymous reviewer for encouraging us to discuss this case.

If we think that perception diminishes privacy, does this commit us to the view that B loses privacy when A ‘sees’ B’s naked body in Somnambulist (and if ‘yes’, is this a counterexample)? This is a difficult question to answer. But importantly, the difficulty does not seem to stem from a lack of clarity on the question of whether privacy depends on perception. Rather, coming clear about how we should think about Somnambulist from the perspective of privacy is difficult, we suggest, because it is unclear whether it involves perception. One way to faithfully characterize the sleepwalker’s perceptual state, if it even is one such, is as a form of *perception without awareness* or, to use different terms, *non-conscious perception*.²⁷ The point that Somnambulist involves perception without awareness is important because it is a contested question in itself if perception without awareness should even be characterized as a form of *perception* (or something else entirely).²⁸ This, in turn, is important for the question of whether privacy requires non-perception because if it is unclear that a given type of case involves perception we can permissibly avoid committing to a specific verdict on whether privacy is affected. So, according to the view that privacy requires non-perception, we can permissibly say: ‘perhaps’ B’s privacy is diminished in Somnambulist. The answer to this question depends on whether the kind of state that A is in whilst sleepwalking is, on the best account of perception, to be regarded as a perceptual state. But it is not an objection to privacy as non-perception that we can identify hard-to-classify fringe cases of perception.

However, we want to make a positive point from these remarks as well. If we think that it is unclear if Somnambulist involves a loss of privacy – which is, to put our cards on the table, how we feel about such cases –, this might give us a positive reason to endorse the view that privacy is non-perception because our unsettledness about the ascription of privacy aligns nicely with unsettledness about the ascription of perception. In other words, the pattern of verdicts may give us some indirect evidence for thinking that privacy can partly be spelled out in terms of non-perception.

In the next section, we explain why – in addition to non-perception - absence of warranted belief is a necessary condition for having privacy, and we formulate the resulting Hybrid View of privacy.

4 Why Absence of Warranted Belief is a Necessary Condition for Having Privacy

After having argued that non-perception constitutes a necessary condition for having privacy, we now turn to the question of formulating our Hybrid View, which incorporates both absence of warranted belief and non-perception. But before we do so, we want to explain why non-perception is not in itself both necessary and sufficient for privacy, and why absence of warranted belief too is a necessary condition for having privacy. If non-perception was both necessary and sufficient for having privacy, then the resulting view would hold that A has privacy regarding *p* and with respect to B *if and only if* B is not in a perceptual state regarding *p*. For

²⁷ For more discussion, see (Dretske 2006).

²⁸ (Merkle et al. 2001).

reasons we lay out below, we think our Hybrid View should be preferred over the perception-only view.

If non-perception was both a necessary and sufficient condition, then this view would be unable to identify a loss of privacy in cases of justified belief where perceptual states are absent. To see this, consider

Inferences. B learns x and y about A. From these pieces of information, B can correctly infer z about A. Based on the inference, B forms a warranted belief that z .

.As many theorists have noted, inferences can instantiate privacy diminishments.²⁹ However, since inferences are distinctively non-perceptual, a view that holds that non-perception is both necessary and sufficient for having privacy does not allow for inferences to diminish privacy.³⁰ This seems to us to suggest a too narrow conception of what privacy is and what types of processes instantiate privacy diminishments.³¹

Let's take stock. So far, we have established that both absence of warranted belief and non-perception are necessary conditions for having privacy. Let us now formulate the resulting Hybrid View:

The Hybrid View Individual A has privacy regarding (a relevant) proposition p and with respect to individual B *iff* B lacks epistemically warranted belief that p , *and* B is not in a perceptual state regarding p .

Accordingly, both perception and warranted belief can instantiate diminishments of privacy, and 'full' privacy obtains only if there is both non-perception and absence of warranted belief. The Hybrid View holds not only that absence of warranted belief and non-perception are each necessary conditions for having privacy. It also claims that they are jointly sufficient conditions (with the caveat that if 'justification' is an independent aspect of privacy, as it might seem, then this highlights a further way in which privacy may be lost which would require a further necessary condition to the Hybrid View). If no one forms a warranted belief about A's personal matters, and no one perceives them, then A has full privacy. Now, we cannot prove that absence of warranted belief and non-perception are jointly sufficient conditions for having privacy.³² But we trust that it is intuitive enough that if no one forms a warranted belief about A, and no one perceives A's personal matters, then A indeed has privacy.³³

²⁹ See e.g. (Gavison 1980); (Rumbold and Wilson 2019); (Rubel 2011); (Manson & O'Neill 2007); (Munch 2021).

³⁰ Notice that this claim is compatible with the thought that perception played a role in obtaining some or all of the inputs of the inference. See for instance (Boghossian 2014).

³¹ On the Belief and Justification-Based View, there would be a loss of privacy even if cases where B were justified in believing z , but didn't in fact form the belief.

³² We cannot do this because we have not shown that there is no such thing as non-informational privacy as some believe (cf. Rössler 2005). But as stated before, we only address the informational component of privacy in this paper.

³³ One may wonder how the Hybrid View could be fitted into an account of privacy as control over access (as some control theorists endorse). If justification is objective (that is, *non-perspectival* because

Besides forming warranted beliefs, and besides perception, we simply cannot think of any additional processes that plausibly diminishes privacy.

5 The Concept of Privacy and the Right to Privacy

Most scholarly interest in the concept of privacy is ultimately instrumental, motivated by the important aim of understanding normative questions regarding privacy, such as the question of which types of actions constitute privacy rights violations or privacy wrongdoings more generally.³⁴ We shall not offer a full account of privacy rights here, primarily because we believe that an account of a right to privacy, aside from saying something about *privacy*, must also say something about what a *right* is, and we have nothing to add on this question here. Instead, we shall indicate how the Hybrid View constitutes an attractive starting point for providing a full account of privacy rights. Consider

Sequence. At t_1 , A X-ray's B's safe and learns all the details of its contents. Prior to t_1 , A had no warranted beliefs about the contents of B's safe. At t_2 , A has a warranted belief regarding the contents of B's safe but does not engage in any X-ray activity. At t_3 , A X-ray's B's safe again.

It seems that there is a violation of privacy (that is wrongful) at t_1 and again at t_3 . The Hybrid View is in an especially privileged position to explain in what sense these wrongs are violations of *privacy*. The reason is that if non-perception is a necessary condition for privacy, then it is possible to explain in what sense these wrongdoings *specifically* involve privacy (or, more precisely, losses thereof). To wit, perception instantiates a loss of privacy. The virtue of the Hybrid View is brought out when we compare with what the Belief-Based View must say about Sequence. The Belief-Based View cannot explain in what sense the wrongdoing at t_3 is about privacy at all because B's privacy - if all there is to privacy is warranted belief - remains unaffected at t_3 (all the relevant beliefs were formed beforehand). If the Belief-Based View was correct, then – on the plausible assumption that a loss of privacy is necessary for a privacy wrong - there would be no wrong in t_3 .³⁵

justification is independent of cognitive states), then it seems possible to exercise control over access by controlling the availability of evidence (e.g., if I do not publish my diary, and nobody acquires it in illicit ways, I could be said to be in control). If justification is perspectival, that is, it depends on the cognitive states of the individual it might seem harder to exercise control over 'access' thus construed because we can't generally control what is going on in other people's minds and other people can't generally act in accordance with our will. The most natural response here would be, we think, to concede that the relevant kind of control is indirect. We control people's beliefs and their subjectively available justification by controlling the availability of evidence. This would in turn suggest that our privacy (construed as control) is crude. But that is in fact recognized by some. Marmor (2015) for instance says that privacy, construed as control over self-presentation, is even in the best case a crude form of control.

³⁴ See for instance Adam Moore's "so what"-objection. (Moore 2008: 417).

³⁵ As before, it seems to us that when considering Sequence, a view including no-perception is also preferable over the Belief and Justification-Based View discussed in Section II. This is because, presumably, we would still want to say that there is a significant violation (and loss) of privacy even if

Cases like Sequence, where an offender repeatedly violates someone's privacy without acquiring any new warranted beliefs, are well-known in the literature.³⁶ Steven Davis has put forward a challenging critique of such cases which – if successful – shows why the Belief-Based View can handle Sequence just as well as the Hybrid View can.³⁷ Davis suggests that proponents of the Belief-Based view can say that there is a violation at t_3 by claiming that belief contents include qualifiers stating *when* something is the case. Here is how this Davis-style objection plays out in relation to Sequence. The proponents of the Belief-Based View can say that every time A perceives the content of B's safe by way of X-raying, A might update what we may call a 'positional belief' about the content of the safe. For example, at t_3 , A can acquire the new positional belief that "at t_3 , there is x in B's safe". In this sense, at every time A X-rays B's safe, a new belief could possibly be formed.³⁸ If A updates her positional belief about the content of B's safe every time she X-rays the safe, then the proponents of the Belief-Based View can say that there *is* a violation at t_3 , and that the necessary diminishment that occurs at t_3 is a diminishment consisting of A forming an updated positional belief about the content of B's safe.

We are skeptical of this response. First, it is clearly not true that every time A perceives the content of B's safe, A must necessarily be updating a positional belief about the content of B's safe. Suppose for instance that A forms a belief at t_1 about the contents of B's safe. It is easy to imagine cases where A would also be warranted in forming the belief that the contents of A's safe will be the same at t_3 . To render this plausible, we can imagine that (1) t_1 and t_3 are minutes (or seconds) apart, (2) that A knows that B is on vacation so she will not alter the content of the safe herself, and (3) that A knows that B's safe is of a great quality so it is very unlikely that someone breaks in and alters the content of the safe. In that case, at t_3 , there is no update of A's positional belief about the content of B's safe. X-raying B's safe at t_3 merely *confirms* what A already believes, namely what the content of B's safe is at t_3 . Thus, no new beliefs are formed. To the extent that we could imagine A being *surprised* when looking into the safe a few seconds later and finding that the contents are different, this shows that she – prior to looking a second time – already had beliefs about what she would find in there. Yet, we should still think there is a violation of privacy when A looks a second time and only confirms what she already justifiably believes – thus, Davis' objection does little to save the Belief-Based view.

Second, claiming that an update in positional beliefs *rather than perception* is what constitutes the morally relevant privacy diminishment at t_3 confuses what the morally relevant feature is. To see why, consider another sequence case: Suppose that A has stolen a pornographic picture from B that depicts B performing a sexual act. A

the perceiving subject only acquired a trivial increase in justification. Sequence-type cases establishes this because the justification from perception is not stimulus-dependent (as with belief) and is therefore already present when A x-rays the safe for the n th time. Hence, if someone wants to point to how there was a significant loss (or violation of) privacy when A x-ray's for the n th time, acquisition of justification doesn't seem like an apt explanation.

³⁶ See for instance (Powers 1996: 377–379).

³⁷ (Davis 2009: 460–461).

³⁸ Thanks to an anonymous reviewer for pointing out this objection to us. See (Davis 2009) for a version of this objection.

has looked very closely at the picture for a long time and has formed all the relevant beliefs about what B looks like naked. Now A puts the picture down on the table, face down. She updates her positional belief, so that she now believes that “at this specific time, there is a pornographic picture of B face down on the table”. Now A flips the picture so that it is now facing up, and looks at the picture again without forming any new beliefs about what B looks like naked. A updates her positional belief again. If perception did not account for the diminishment in privacy that occurs when A flips the picture and looks at it again, then it would follow that – all else being equal – it would be just as wrong for A to look at the picture facing down, as it would be for A to look at the picture facing up. In both cases, A updates her positional belief, so if nothing else indicates a difference, the two scenarios must be equally wrong. But the verdict that it is just as wrong for A to look at the picture facing down as it is for A to look at it facing up seems very counterintuitive. To explain why it is worse – all else equal – when A looks at the picture facing up, we need to appeal to the changes in perceptual states. It is much worse, it seems, when A looks at the picture facing up, because then A perceives B’s naked body depicted on the picture.

There is another move open to proponents of the Belief-Based View in response to repeated violation cases like Sequence. Proponents of the Belief-Based View can disconnect views on what privacy is from views on what constitutes a privacy violation. In other words, they can drop the assumption that a loss of privacy is necessary for a privacy wrong. Kappel writes, for instance,

the notions of privacy diminishment, privacy wrongs and privacy harms can come apart in various ways. The underlying reason for this is that the notions of privacy diminishment, privacy wrongs and privacy harms are variously subject to three forms of epistemic dependencies. Privacy diminishment are truth-dependent. In addition, privacy diminishment are state-dependent: they require certain epistemic states, such as knowledge or justified belief, to occur. *Privacy wrongs, however, are path-dependent, they depend on epistemic pathways, certain ways of trying to acquire epistemic states about sensitive facts [independent of what epistemic states obtain, red].*³⁹

On views such as Kappel’s, it could be maintained that while t_3 involves a *violation of privacy*, there is no *loss of privacy*. This move incurs a theoretical debt, however, that consists in explaining in what sense privacy violations are distinctively violations of *privacy* since the resulting analysis decouples the account of what privacy is from the related wrongdoing. Or, as we said before, it requires dropping the plausible assumption that a loss of privacy is necessary for a privacy wrong. As Björn Lundgren has recently pointed out, on any plausible account of the right to privacy, privacy must be the object of this right.⁴⁰ But if a loss of privacy is not necessary for a violation of privacy, then it is difficult to see how the right to privacy is a

³⁹ (Kappel 2013: 181). Fallis (2013) maintains that while belief might explain why violations of privacy are *bad*, belief is not necessary for a loss of privacy.

⁴⁰ (Lundgren 2020). See also (Mainz and Uhrenfeldt 2021b) and (Lundgren 2021) for discussions of the relation between the concept of privacy and the concept of the right to privacy.

right to *privacy*. Since we know of no compelling argument that explains why this decoupling is non-mysterious or non-ad hoc, we conclude that a proponent of the Belief-Based View that also wants to provide an account of privacy wrongs incurs a theoretical debt of aligning normative and descriptive intuitions about privacy that the Hybrid View does not incur.

6 Conclusion

We have argued that we ought to reject what we have called the Belief-Based View of privacy. Instead, we ought to subscribe to the Hybrid View, which is perception-based *as well as* belief-based, and we have suggested that privacy may also be justification-based. We have demonstrated why privacy couched in terms of the Hybrid View is able to accommodate both widespread conceptual and normative judgments that the Belief-Based View cannot. Access theorists should thus have ample reason to endorse the Hybrid View, whereas control theorists who incorporate an access-clause should have some reason to modify their views as well.

Acknowledgements We would like to thank Kasper Lippert-Rasmussen and Andreas Bengtson for very useful comments.

Author Contributions Both authors contributed equally to the manuscript and every part of it.

Funding Work on this article has been generously supported by a Carlsberg Foundation Young Researcher Fellowship Grant awarded to Jens Christian Bjerring (grant number CF20-0257).

Data Availability n.a. (no data were generated or analyzed)

Statements and Declarations

Competing Interests There are no competing interests to be declared.

Ethical Approval n.a.

Consent to Participate n.a.

Consent to Publish n.a.

References

- Allen, A. 1988. *Uneasy Access: privacy for women in a Free Society*. Rowman & Littlefield Publishers.
- Beardsley, E. 1971. "Privacy: Autonomy and Selective Disclosure", *NOMOS XIII: Privacy* (J. Pelmock and J. Chapman, eds.). New York: Atherton Press.
- Beck, J. 2018. "Marking the perception–cognition boundary: the Criterion of stimulus-dependence". *Australasian Journal of Philosophy* 96(2): 319–334.
- Blaauw, M. 2013. "The epistemic account of privacy". *Episteme* 10(2): 167–177.
- Block, N. 2014. "Rich conscious perception outside focal attention". *Trends in Cognitive Sciences* 18(9): 445–447.

- Boghossian, P. 2014. "What is inference?". *Philosophical Studies* 169(1): 1–18.
- Byrne, A. 2016. "The epistemic significance of experience". *Philosophical Studies* 173: 947–967.
- Davis, S. 2009. "Is there a right to privacy?". *Pacific Philosophical Quarterly* 90: 450–475.
- Dretske, F. 2006. "Perception without Awareness". In *Perceptual experience*, eds. T. S. Gendler, and J. Hawthorne, 147–180. Oxford: Oxford University Press.
- Fallis, D. 2013. "Privacy and the lack of knowledge". *Episteme* 10(2): 153–166.
- Fried, C. 1968. "Privacy". *Yale Law Journal* 77: 482.
- Gavison, R. 1980. "Privacy and the limits of the Law". *Yale Law Journal* 89(3): 421–471.
- Gross, H. 1971. "Privacy and Autonomy", *NOMOS XIII: Privacy* (J. Pennock and J. Chapman, eds.). New York: Atherton Press.
- Inness, J. 1992. *Privacy, intimacy, and isolation*. Oxford: Oxford University Press.
- Johnson, J. L. 1989. "Privacy and the judgment of others". *Journal of Value Inquiry* 23: 157–168.
- Kappel, K. 2013. "Epistemological dimensions of informational privacy". *Episteme* 10(2): 179–192.
- Le Morvan, Pierre. 2015. "Privacy, Secrecy, Fact, and Falsehood". *Journal of Philosophical Research* 40: 313–336.
- Lundgren, B. 2020. "A dilemma for privacy as control". *Journal of Ethics* 20: 165–175.
- Lundgren, B. 2021. "Confusion and the role of Intuitions in the debate on the conception of the right to privacy." *Res Publica*, online first.
- Macnish, K. 2018. "Government Surveillance and why defining privacy matters in a Post-Snowden World". *Journal of Applied Philosophy* 35: 417–432.
- Macnish, Kevin. 2020. "Mass Surveillance: A Private Affair?". *Moral Philosophy and Politics* 7(1): 9–27.
- Mainz, J., and R. Uhrenfeldt. 2021a. "Too much Info: data surveillance and reasons to Favor the Control Account of the right to privacy". *Res Publica* 27: 287–302.
- Mainz, J., and R. Uhrenfeldt. 2021b. "Privacy rights, and why negative control is not a dead end: a reply to Munch and Lundgren." *Res Publica*, online first.
- Manson, N., and O. O'Neill. 2007. *Rethinking informed consent in Bioethics*. Cambridge: Cambridge University Press.
- Marmor, A. 2015. "What is the right to privacy?". *Philosophy & Public Affairs* 43: 3–26.
- Matheson, D. 2007. "Unknowableness and informational privacy". *Journal of Philosophical Research* 32: 251–267.
- Menges, L. 2021. "A defense of privacy as control". *Journal of Ethics* 25(3): 385–402.
- Merikle, Philip M., John D. Daniel Smilek, and Eastwood. 2001. "Perception without awareness: perspectives from cognitive psychology". *Cognition* 79(1–2): 115–134.
- Moore, A. 2008. "Defining Privacy". *Journal of Social Philosophy*, 39(3).
- Munch, L. A. 2021. "Privacy rights and 'naked' statistical evidence". *Philosophical Studies* 178: 3777–3795.
- Nissenbaum, H. 2009. *Privacy in Context: Technology, Policy, and the Integrity of Social Life*. Stanford University Press.
- Parker, R. 1974. "A definition of privacy". *Rutgers Law Review* 27: 275.
- Parent, W. 1983. "Privacy, morality". *Philosophy & Public Affairs* 12(4): 269–288.
- Phillips, B. 2019. "The shifting Border between Perception and Cognition". *Noûs* 53: 316–346.
- Powers, M. 1996. "A cognitive Access definition of privacy.", *Law and Philosophy*, 15.
- Raftopoulos, A., and V. C. Müller. 2006. "The phenomenal content of experience". *Mind & Language* 21: 187–219.
- Rik Peels. 2016. *Responsible belief: a theory in Ethics and Epistemology*. Oxford University Press.
- Rubel, A. 2011. "The Particularized Judgment account of privacy". *Res Publica* 17: 275.
- Rumbold, B., and J. Wilson. 2019. "Privacy rights and public information". *Journal of Political Philosophy* 27: 3–25.
- Rössler, B. 2005. *The value of privacy*. Wiley.
- Schellenberg, S. 2018. *The Unity of Perception: content, consciousness, evidence*. Oxford: Oxford University Press.
- Siegel, Susanna. 2021. "The Contents of Perception", *The Stanford Encyclopedia of Philosophy*, <https://plato.stanford.edu/archives/fall2021/entries/perception-contents>
- Soifer, Eldon, and David Elliott. 2014. "Nonstandard observers and the nature of privacy". *Social Theory and Practice* 40(2): 185–206.
- Solove, D. 2010. *Understanding privacy*. Cambridge, MA: Harvard University Press.
- Thomson, J. J. 1975. "The right to privacy". *Philosophy & Public Affairs* 4: 295–314.

- Tye, M. 2006. "Nonconceptual content, richness, and fineness of grain. In *Perceptual experience*, eds. T. Gendler, and J. Hawthorne, 504–530. Oxford: Oxford University Press.
- Van Den Haag, E. 1971. "On Privacy", *NOMOS XIII: Privacy*, eds. J. Pennock and J. Chapman. New York: Atherton Press.
- Warren, Samuel D., and D. Louis, and Brandeis. 1890. "The right to privacy". *Harvard Law Review* 4(5): 193–220.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.