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#### **ORIGINAL RESEARCH**



# McDowell's overlooked argument for disjunctivism - realism, self-consciousness, and knowledge

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#### Abstract

McDowell's defence of disjunctivism is often portrayed as starting from a controversial epistemological access-internalism, which he fails to support in his writings. This paper critiques such interpretations and presents an alternative reading of McDowell's argument in favour of disjunctivism. Taking outset in McDowell's early debate with Michael Dummett, it is shown why disjunctivism is a consequence of McDowell's realism combined with his acceptance of the Fregean claim that Sense determines reference. It is argued that even within the modest approach to meaning theories which McDowell favour, disjunctivism is a necessary requirement for a defence of realism. This approach means that, rather than starting from controversial epistemological convictions, McDowell's disjunctivism motivates the adoption of access-internalism, as it enables truth-ensuring experiential support for our thoughts. Hence, while I deny that disjunctivism follows from premises about the nature of knowledge, I agree with McDowell that the landscape of our debate about knowledge may be irrevocably altered once we accept disjunctivism.

**Keywords** John McDowell  $\cdot$  Disjunctivism  $\cdot$  Realism  $\cdot$  Sense  $\cdot$  Michael Dummett  $\cdot$  Knowledge

When the relationship between knowledge and consciousness is discussed, the focus is typically on the role of consciousness in the constitution of knowledge. Moreover, the debate often focusses on a very specific feature of consciousness, its capacity to make its intentional objects accessible to the reflection of self-conscious thinkers. The rough idea is that if we can establish that certain important features that separates knowledge from mere true belief must be accessible to consciousness, then we can

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31 Page 2 of 18 Synthese (2024) 204:31

learn about the extent of our knowledge from assumptions about consciousness, and vice versa. We might start with a certain conception of consciousness where very little is accessible and then become sceptics. Alternatively, we may be committed to avoiding scepticism, and see this as a way of defending the claim that a great deal can be accessible to consciousness. McDowell is often interpreted as proposing such a knowledge-argument in his defences of disjunctivism (See for example: Brogaard, 2011; Neta, 2008; Pritchard, 2008). On such an interpretation, McDowell's defence of a disjunctive account of perception starts from the presumption that we have knowledge about mind-independent reality. He then intends to use this premise to establish how our consciousness involves unmediated perceptual access to the external world. In this paper, I propose an alternative reading of McDowell's main defence of disjunctivism. This defence starts from our theories of content, rather than from theories of knowledge. The starting presumption of this alternative argument is that our self-conscious theories of content should operate on a presumption in favour of realism, and thus aspire to describe our thinking as referring to the mind-independent reality. Disjunctivism is then claimed as necessary in order to attain this aspiration.

While the attribution of a knowledge-argument to McDowell is widespread, there are two problems with this interpretation of McDowell's defence of disjunctivism. The first, and most substantial, is that if McDowell was indeed engaged in this debate, he would have to provide some form of defence of the initial antecedent upon which this whole argument rests. Recall, it all began from the epistemological presumption that at least some important features which separate knowledge from mere true belief must be accessible to consciousness. In other words, McDowell would have to defend, rather than simply presume, some form of access-internalism.

McDowell, however, provides very little in the way of such a defence. He endorses the position that the difference between knowledge and mere true belief is a matter of the reasons upon which our beliefs are based (McDowell, 1998f, p. 339). Moreover, he not only claims that our reasons must be consciously accessible; our reasons must be self-consciously accessible as having the status of reasons. Reasons, for McDowell (1994, p. 54), are inherently something that reasoners can self-consciously reason with. Thus, according to McDowell, what knowledge we possess is dependent on the layout of what is self-consciously accessible to us as having a rational bearing on our judgements. This strong form of access-internalism is highly controversial in epistemological circles to say the least. Furthermore, McDowell (2009b, p. 236, 2009a, p. 281) even thinks canonical forms of perceptual knowledge must be grounded in infallible support. In combination with his reasons-internalism, this means that knowledge must be supported by reasons internally accessible as factive reasons. Given the widespread acceptance of variants of reliabilism and other forms of fallibilism in the epistemological community, if McDowell followed the suggested argumentative path, his arguments would have little traction until he provided support for these exceedingly strong initial premises.

<sup>&</sup>lt;sup>1</sup> See also the entry on arguments for epistemological disjunctivism at Stanford encyclopedia of philosophy: https://plato.stanford.edu/entries/perception-disjunctive/#EpisArgu.



Synthese (2024) 204:31 Page 3 of 18 31

The second problem with this interpretative approach is that McDowell explicitly disavows any specific interest in the question of knowledge. His genuine interest is with the deeper anxiety that arises:

"as an inchoate felt threat that a way of thinking we find ourselves falling into leaves minds simply out of touch with the rest of reality, not just questionably capable of getting to know about it. A problem about crediting ourselves with knowledge is just one shape, and not the most fundamental, in which this anxiety can make itself felt" (McDowell, 1994, pp. xiii–xiv).

This occupation with our minds being in touch with reality is echoed even in McDowell's earlier discussions of disjunctivism, where he is worried about a theory which "portrays the domain of our subjectivity— our cognitive world— in such a way that, considered from its own point of view, that world has to be conceived as letting in no light from the outside" (McDowell, 1998 g, p. 251). Of course, there are other texts in which McDowell explicitly raises the question of knowledge. However, his approach in these is simply to remove obstacles to his internalist approach to knowledge, rather than to present a positive defence of why we should adopt his strong demand that knowledge requires beliefs based on self-consciously accessible factive reasons (McDowell, 1998c, f).

In the following, I want to present an interpretation of McDowell's thought which, rather than asking about the role of conscious access in relation to knowledge, asks about the role of conscious access in relation to our self-consciousness of our own thinking as referring to a mind-independent reality. The question of how this relates to knowledge then becomes secondary, just like the quote above claims.

## 1 Self-consciousness and conscious access to the mind-independent world

In *Mind and World*, McDowell discusses the relationship between consciousness and external reality. However, his core approach isn't to talk about this relationship from a third-personal investigation, as would be done when for example cognitive science aims to empirically investigate consciousness (McDowell, 1998 g, p. 252n). Instead, he addresses our *theories* about the relationship between mind and world. He aims to overcome an unproductive oscillation between two distorted theories of how our thinking relates to reality (McDowell, 1994, p. xvi). He proposes a remedy by providing a different form of theory about our own experiential consciousness. This means that McDowell's primary topic isn't consciousness as such, it is rather self-consciousness as it occurs when conscious creatures start to wonder about the nature of their thinking about mind-independent reality. McDowell (1994, p. 66) aims to provide a picture of empirical consciousness which he thinks we must adopt in order to adequately theorize about our own thinking.

Looking at McDowell's thought in this light can help establish some of those premises which seem hard to motivate had his thinking initiated from a given conception of knowledge. First of all, McDowell's focus on self-consciousness becomes



31 Page 4 of 18 Synthese (2024) 204:31

unquestionable. While it may be controversial that a belief's status as knowledge is inherently tied to self-consciousness, it is trivial that our theories about our own conscious thinking are exercises of self-consciousness. Secondly, McDowell's occupation with reasons for thought becomes a matter of focus rather than a necessary requirement for knowledge. It is controversial whether knowledge must be based on consciously accessible reasons. But it is uncontroversial that a full theory of thought and consciousness must take some stance on whether conscious experiences of the world can provide reasons for judgement and belief. And this is simply the aspect of our self-conscious theories about the relation between thinking and perceptual experience that McDowell is interested in investigating. Surely, he is allowed that academic interest without providing substantial justification for it.

What then, does McDowell say about our self-conscious theories of whether and how experiences of the world provide reasons for thoughts? As is well-known, his ultimate conclusion will be that perception must provide us with factive reasons that are self-consciously accessible as having this status (McDowell, 1994). That we are talking about reasons that are self-consciously accessible as such follows from the points established above, and thus require no further defence. We are after all investigating how we theoretically understand our own experiential reasons. What is questionable is (a) why there must be such factive experiential reasons and (b) how there can be such factive experiential reasons.

We can separate McDowell's demand for factive experiential reasons into two separable elements: First, the claim that our experiential reasons must be able provide support for our empirical thoughts which is truth-ensuring. Secondly, the claim that the support experience provides must be conceptually structured if it is to figure as a reason for thought. In the following, I will exclusively engage with the first claim regarding the truth-ensuring status of our experiential reasons. As such, my arguments defend the disjunctive character of experience, rather than its conceptual structuring. Following thinkers such as Bill Brewer (2006) and Travis (2007), I take McDowell's arguments in favour of the need for conceptual reasons to be less convincing than his defence of disjunctivism. Admittedly, this claim is controversial. A series of recent articles defend McDowell's conceptualism about experience as the only way of avoiding the Myth of the Given (Ginsborg, 2011; Kalpokas, 2022)<sup>2</sup>. I was until recently convinced by such a line of argument (Gersel, 2018). Now I think that McDowell is subtly equivocating between two versions of the Myth of the Given in his treatments of the issue. However, McDowell only manages to show that one of these versions amounts to a genuine Myth, and avoiding this genuine version of the Myth doesn't require conceptualism about experiential content<sup>3</sup>. While a full discussion of this issue is beyond the scope of the present paper, I take the issue of conceptualism about perceptual reasons to be orthogonal to McDowell's argument for the truth-ensuring status of perceptual reasons. Hence, my present argument could, as far as I see, be seamlessly adopted by those who also endorse McDowell's conceptualism.

<sup>&</sup>lt;sup>3</sup> See my (Gersel, 2024) for the full treatment.



<sup>&</sup>lt;sup>2</sup> For disagreement with Ginsborg see (French, 2020).

Synthese (2024) 204:31 Page 5 of 18 31

The rest of the paper will thus focus on McDowell's claim that perceptual reasons must be truth-ensuring. He expresses this as follows: "The canonical justification for a perceptual claim is that one perceives that things are as it claims they are, and that is not a defeasible inferential base" (McDowell, 2009b, p. 236). Bearing this restricted focus in mind, McDowell's argument requires two steps. First, he must explain why our self-conscious theories must cast experiences in the role of providers of truth-ensuring reasons. Secondly, he must explain how we can make sense of experience as playing that role. McDowell has been immensely innovative and active in his attempts at completing the latter step. McDowell (1998f, 1998 g, 2009b) has in numerous articles defended a form of epistemological disjunctivism, where the rational support provided by perceptions is irreducible to a common factor shared with hallucinations. Rather, when we perceive, we have unmediated conscious access to the mind-independent world itself. Disjunctivism allows us to understand perception as providing truth-ensuring support for our empirical thinking, as it is the very aspect of reality which we judge to be as it is, which figures as our perceptual reason for thinking this way. That particular form of support could not have been provided had things not been as they are judged to be, as we in that case couldn't have perceived that aspect of reality. McDowell (1994, p. 26) phrases this form of truth-ensuring support in the terminology of factive reasons, where our perceptual reason is the very fact that makes our judgement true. However, this formulation in terms of facts depends upon McDowell's further commitment to the conceptual structuring of all reasons for thought. All we require for the present argument is that one's perceptual reason is truth-ensuring, where we can remain neutral about the metaphysical nature of the relevant truth-makers. Further variants of disjunctivism which do not have these conceptual requirements on reasons have been defended by Brewer (2011), Campbell (2002), and Travis (2004), among others.

I will not engage further in the intricate debate concerning the relative merits and costs of various forms of epistemological and/or metaphysical disjunctivism. Instead, I want to focus on the first required step in McDowell's argument: a defence of the claim that our self-conscious theories must cast experience in the role of a provider of truth-ensuring reasons. With regards to this aspect of his view, McDowell has been less forthcoming with substantial argumentation. As we have seen, he hints at various places that if we do not view experience in this way, then we cannot make sense of our thoughts as concerning the external world at all. But why is this so? What are the requirements on an adequate self-conscious theory of our capacity for thought, which bars us from taking our thinking to concern the external world, unless we take experiences to sometime provide truth-ensuring support for such thinking?

Had McDowell's arguments been outright epistemic, and thus concerned with how our thinking acquires the status of knowledge, then his main opponents would be the wide majority of philosophers who adopt some form of fallibilist account of the epistemic role of experience. Most dominantly, various forms of reliabilism about knowledge (Goldman, 1979). McDowell (1998c) has indeed criticized such positions, but his arguments merely take the form of showing why we need not accept reliabilism or fallibilism, given that disjunctivism enables the possibility of truthensuring reasons for thought. As if reliabilism and fallibilism where epistemological positions that everyone were loath to adopt and only accepted as a last resort. How-



31 Page 6 of 18 Synthese (2024) 204:31

ever, a great many epistemologists have no such compunctions about reliabilism. Hence, the mere possibility of avoiding reliabilism and fallibilism cannot on its own function as a positive argument in favour of disjunctivism.

If McDowell's arguments are to have persuasive edge, he must start by establishing disjunctivism and then, when that is settled, show how it would be odd to adopt reliabilism as an account of knowledge, when we do in fact have truth-ensuring support available for our empirical thought. All this leads us back to the question of what McDowell's non-epistemological argument is for demanding that our self-conscious theory must explain our conscious experiences as providers of truth-ensuring support for empirical thought. In the extended quote earlier, McDowell talks about overcoming an anxious worry about how our thinking can be out of touch with reality. However, he does very little to explain why this anxiety grips us, let alone why we should take it seriously? A great many of our worries are due overly excitable minds. Without further explanation, the realibilist cannot be faulted for thinking that this anxiety is simply another of those instances where we ought to calm down, instead of letting a fit of anxiety lead us to the adoption of a crazy theory of mind.

#### 2 The demands on a theory of meaning

To appreciate the anxiety McDowell has in mind, we need to look at what he considers requirements on an adequate theory of thought.<sup>4</sup> The anxiety, as we saw, is that without truth-ensuring support from experience, we cannot provide an adequate theory of our own thinking as concerning external reality. An informative starting place is McDowell's early exchanges with Michael Dummett regarding the constraints on an adequate theory of meaning.<sup>5</sup>

Dummett's (1991, 1993c) main claim is that we cannot ascribe meaning to our thoughts which transcends what can be manifested in use. Dummett has two central motivations for introducing this requirement. First off, he thinks that if we cannot make the meaning of our thoughts fully manifest through our use of words, then we reduce linguistic communication to unsupported hypothesizing about the minds of other speakers (Dummett, 1993a, p. 102). Following Frege, Dummett thinks this would problematically psychologize thoughts by removing them from the sphere of the objectively shareable. Secondly, and just as importantly, Dummett (1993a, p. 104) thinks that in order to avoid the Scylla of behaviourism we must account for our grasp of concepts as a form of knowledge. However, to steer clear of the Charybdis of psychologism, this knowledge must be knowledge that can be made manifest in our use of those concepts. Importantly, for it to be *knowledge* that is made manifest, it is

<sup>&</sup>lt;sup>5</sup> While Dummett (1993a, p. 97) adheres to the tenets of early analytic philosophy and takes the investigation of language to be prior to that of thought, we can, following McDowell (1998g, p. 253n) and much recent philosophy of mind, ignore this presumption and deal simultaneously with the ascription of meaning to our thoughts and our capacity to express such thoughts in language.



<sup>&</sup>lt;sup>4</sup> As McDowell is never fully explicit about the cause of the anxiety, the argument to come will be a case of contentious interpretation. However, it would be equally contentious to call the argument my own, as I cannot help but conceiving of it as something I discovered directly in McDowell's writings. I will follow my own experience of things and treat it as if it is McDowell's.

only our rational concept use that can count as manifesting our understanding (Dummett, 1993a, p. 104). Clearly, little knowledge is made manifest by the *irrational* uses we make of our concepts. Crucial for our purposes is that McDowell (1998b, p. 314, 1998a, p. 112n) accepts both of Dummett's arguments for demanding that it must be possible to make manifest the meaning of our concepts in use.

A consequence Dummett draws from this manifestation requirement is that proposed distinctions in meaning are spurious if they are utterly idle in differentially affecting rational human activity. With regards to the grasp of a predicational concept, Dummett expresses the point as follows:

"What is it to grasp the concept square, say? At the very least, it is to be able to discriminate between those things that are square and those that are not. Such an ability can be ascribed only to one who will, on occasion, treat square things differently from things that are not square" (Dummett, 1993a, p. 98).

Evans (1982, p. 89) has phrased a similar requirement with regard to the object referring concepts of our thoughts in terms of what he calls Russell's Principle. This principle states that "a subject cannot make a judgement about something unless he knows which object his judgement is about." To grasp the concepts involved in forming a judgement thus requires a manifestable capacity which amounts to some form of knowing which object one is talking about and what one is judging about that object.<sup>7</sup>

Notably, McDowell (1998a, 1998e) accepts this requirement that distinctions in the content of our thoughts must be possible to make manifest in differences within our rational human practices. His controversy with Dummett concerns a secondary requirement that Dummett (1981, p. 297, 1993b, 1993c) introduces on an adequate theory of meaning: the demand that such differences in rational human activity must be discernible to an observer external to conceptual community whose meaningful practices we are investigating. According to Dummett (1993c, p. 86), a theory of meaning isn't a theory that should merely allow us to understand our own practices, it is a theory that should enable someone fully outside our minded community to gain entrance into our way of thinking by learning the theory. Dummett (1993c, p. 93) infamously took these two requirements to undermine the possibility of a realist account of truth and meaning. Instead, Dummett thinks, we must acknowledge that we can only issue thoughts that have verification-conditions rather than realist truth-conditions, and in this way the potential referents for thought will all be minddependent. The details of Dummett's argument are of less importance. What is of current relevance is the critique McDowell provides in his defence of realism.

<sup>&</sup>lt;sup>7</sup> For Dummett's particular understanding of the more general point from Evans see: (Dummett, 1981, p. 229).



<sup>&</sup>lt;sup>6</sup> A tempting objection here is that Dummett ignores the conceptual division of labour, where our use of concepts may be parasitical on the discriminatory capacities of experts (Burge, 1979). However, we can ignore this for our purpose, given that the labour we are concerned with is the ability to respond to truth-ensuring experiential reasons and that is capacity that reasonably can only be attributed to either all ordinary human thinkers or to none of them. Out of fairness, it should be mentioned that Dummett does adequately acknowledge such division on linguistic labour elsewhere (Dummett, 1981, p. 141).

31 Page 8 of 18 Synthese (2024) 204:31

McDowell (1998e, p. 97) criticizes Dummett for adopting a perspective 'as from the outside' content in explaining the meaning of our rational practices of thought and speech. McDowell claims that from such a perspective, no meaning will be discernible in our rational practices at all, only an advanced regularity in patterns of information bearing tokens (1998a, pp. 113–114). His contrary approach is that the most our theory of meaning should provide is an account of how we make sense of ourselves as minded beings referring to a mind-independent reality. It need not provide a manual that could potentially introduce alien others into our form of mindedness. A theory of meaning for our thinking is thus not only a self-conscious project, but also, for McDowell, a project that must be approached by availing ourselves of the resources we have available from within our self-conscious perspective (McDowell, 1998b, pp. 324–327).

In several articles, McDowell (1998b, 1998a, 1998e) has argued that all we need to explain the public availability of the thoughts we express in language, is to notice how language competence enables us to directly appreciate the thought expressed by the rational use of a linguistic token. We do not initially attend to the mere linguistic token and then somehow need to decipher the thought it expresses. What language mastery enables is an ability to directly hear thoughts as expressed in language. This approach doesn't account for how someone outside our practice of minded speech could gain entry into our way of understanding the world. It is, McDowell acknowledges, a modest theory of meaning. But McDowell's (1998b, p. 131) theory is centred precisely around his denial that there is any way of explaining the meaning of the rational practices of a community solely in terms of resources available to those who are external to that concept using community. There is nothing wrong with modesty if striving for more is a fool's errand.

My impression is that much scholarship has taken this to be the end of McDowell's concerns with the manifestation of meaning in rational concept use. However, the provision of a modest theory of communal linguistic understanding only suffices to address one of the two reasons Dummett had for requiring meaning to be manifest in use. Recall, the first reason was to provide an account of linguistic understanding which needn't resort to unfounded hypothesizing about the thoughts others express by their language use. The second reason, however, was to explain our grasp meaning in terms of the possession of knowledge, in such a way that we could avoid both psychologism and behaviourism. However, if we wish to understand the collective social knowledge in which our shared grasp of meaning consists, we cannot simply explain this in terms of our ability to understand what each other are saying. Sure, if I am able to think realist thoughts about mind-independent reality and you are likewise so capable, then our possession of a shared language enables you to directly hear my realist thinking expressed in my language use. But none of this amounts to a selfconscious theory of how each of us, in our shared community, are able to think realist thoughts at all. What accounts for the shared capacity of our thought and speech to refer to a mind-independent reality?

I want to suggest that McDowell's thinking includes an argument that portrays disjunctivism as a necessary response for realists who wish to address Dummett's secondary motivation for requiring that meaning must be manifest in rational concept use.



Synthese (2024) 204:31 Page 9 of 18 31

#### 3 Realism and manifestation

When faced with Dummett's anti-realist conclusions, the typical response from realists has been to simply deny Dummett's primary premise; the premise accepted by McDowell that differences in meaning must be manifested by their differential influence on rational human activity. Causal theorists of various kinds argue that variations in causal relations to external reality can occasion differences in the meaning of our concepts that have no effect on their rational use (Kripke, 1980; Putnam, 1975). In the typical twin-earth examples, we are asked to imagine a thinker transported from earth to twin-earth. The only difference between these places is that where we on earth have water with the fundamental chemical composition H2O, twin-earth has a liquid which is identical in every aspect discernible to current thinkers, but which has the fundamental chemical compositions XYZ. Naturally, upon transportation to twin-earth, earth-thinkers will use their concept 'water' indiscriminately between H2O and XYZ. The pressing questions are whether such uses of 'water' in the attempt to refer to XYZ count as rational uses of the concept and, secondly, whether XYZ falls within the original extension of our thinkers' concept of 'water'.

Causal theories of meaning take natural kind concepts to differ in meaning between those raised on earth and twin-earth. Earthlings will have the concept water which rigidly refers to H2O, and twin-earthers the concept twater which rigidly refers to XYZ (Putnam, 1975). Crucially, the two concepts are presumed to possess fully identical roles in all rational practices. The idea of the causal theorist is that the rational use of both the concept water and twater is encapsulated in the identical practices of using the concept to refer to what is recognized roughly as the drinkable stuff that falls as rain, fills lakes and rivers, and so on. From the perspective of our rational reasoning, no difference is supposed to exist between the citizen on earth and twinearth, as neither community has reached a point of chemical knowledge where they are sensitive to the only difference between H2O and XYZ, which is their fundamental chemical composition. According to such causal theories of meaning, the Sense<sup>8</sup> of the concepts which explain their respective embedding in a rational psychology is identical. However, they still maintain the reference of the concept 'water' and 'twater' differ, with 'water' referring exclusively to H20 and 'twater' referring exclusively to XYZ. In contrast, Dummett (1981, pp. 111–151) argues that given a human thinker transposed to twin-earth would unabashedly, and indeed rationally, refer to twater with his concept 'water', the concept 'water' refers to whatever satisfies the relevant verification-conditions for being water, something which is obviously shared by both H2O and XYZ.9

What is notable about McDowell's defence of realism is that he retains Dummett's primary premise. Proposed distinctions in meaning must still, according to McDow-

<sup>&</sup>lt;sup>9</sup> For the chemically enlightened thinkers of later generations, Dummett (1981, p. 141) argues that it would be part of the Sense of the concept water that it refers to a single chemical substance with some set of these identifying properties, hence he would argue that the discovery of XYZ would occasion a conceptual revision where we realize that 'water' as a proper name failed to refer.



Note, I follow Frege in using 'Sense' as a term capturing the rational role of a concept, where this doesn't presuppose a descriptive reading of Senses. For an extended discussion of this difference, see (Evans, 1982).

31 Page 10 of 18 Synthese (2024) 204:31

ell (1998a, pp. 120–121;1998b, p. 321), make themselves manifest in differences in our rational activity. Hence, differences in meaning must accord with differences in Sense. Once again, his conservation of realism relies on a denial of Dummett's secondary assumption that such differences must be discernible to an observer external to the rational practice under investigation.

The difference between the response of McDowell and the causal theorist is encapsulated in McDowell's (1998d) theory of object-dependent senses. Like the causal meaning theorist, McDowell thinks that the reference of a concept can depend on the actual relations between the thinker and the referent. However, McDowell's maintains that this difference must also be reflected in the Sense, that is the rational role, of the concept. However, a part of our self-conception as thinkers is that some of our concepts pick out objects, not simply descriptively, but based on our experiential encounters with their referents (McDowell, 1998 g, p. 230). Hence, an earthling's and a twin-earther's concepts will according to McDowell differ not only in reference, but also in Sense<sup>11</sup>. The following table illustrates the positions in play.

Earthling and twin-earther concepts	Sense	Refence
Dummett	Same	Same
Causal theorist	Same	Different
McDowell	Different	Different

What McDowell and Dummett share is their conviction that differences in meaning must manifest themselves in differences in rational human activities. Hence, on their view, we can for obvious Fregean reasons allow that concepts with different Sense can share reference, but we cannot accept the proposal of the causal theorist which accept differences in reference despite sameness of Sense. Given that McDowell accepts that distinctions in meaning must accord with differences in rational concept use, McDowell is faced with a unique challenge in his defence of a realist theory of meaning. Unlike the causal theorist, if McDowell wishes to uphold a substantial distinction between realist and anti-realist thought, he must provide an account of the difference in our rational practices which accounts for us being thinkers of the realist type. Dummett is freed from this requirement given that he takes realist thought to be an untenable conception of meaning. The causal theorists are free to deny any connection between distinctions in meaning and differences in rational practices<sup>12</sup>.

<sup>&</sup>lt;sup>12</sup> In this paper I won't critique the causal theorist position as such, see (Gersel, 2022) for an argument as to why our rational inferential practices requires that Sense determines reference. In this paper, I will merely display how, if one rejects the causal theory of content and adopts the position that Sense must determine reference, then realism requires disjunctivism. For more direct critiques of the causal theory of perception, see for example (Campbell, 2002; Eilan, 2015; Roessler, 2011).



<sup>&</sup>lt;sup>10</sup> Here McDowell draws on Evans' (1982) reading of Frege as a proponent of object-dependent Senses.

<sup>&</sup>lt;sup>11</sup> Notice, McDowell's arguments do not hinge on anything particular about natural kind concepts. His arguments focus on perceptual judgements in general. I have solely used natural kind concepts in the exposition of the differing conceptions how Sense relates to reference because of the historical role these concepts played in introducing the causal theories of meaning. Various considerations about the conceptuality or non-conceptuality of experience might affect whether one takes natural kinds to be perceptible in the way required for them to figure in perceptual judgements. I thank an anonymous reviewer for pressing me to clarify this.

Synthese (2024) 204:31 Page 11 of 18 31

#### 4 From manifesting meaning to McDowell's anxiety

We are now in a position to discern the origins of the anxiety McDowell thinks should lead us towards disjunctivism. At its most general, the worry is that if we deny epistemological disjunctivism, then we cannot account for the difference in the rational conceptual practices of realist and anti-realist thinkers which would allow us to draw the conceptual distinction between these two modes of thought. Pre-philosophical intuitions support a conception of ourselves as realist thinkers whose thoughts refer to the occurrences of the mind-independent reality. This stands in contrast to an antirealist thinker, whose thoughts simply refer to the presence or absence of certain mind-dependent evidential conditions. However, if such a contrast is to be a viable distinction within a theory of meaning, then there must be some aspect of our rational practice of concept use which differs from that which such an anti-realist thinker would engage in. A presumption of McDowell's, which I share and won't further defend at this instance, is that the difference between these two forms of thinking must be found in differences in our rational practice of issuing perceptual judgements supported by experiential evidence. After all, if not in relation to our rationally formed perceptual judgements, where then should the relevant differences in the rational practice of these two forms of empirical thought surface.

On a non-disjunctive account of our experiential reasons, the rational influence of experience on thought can always be identical between conditions where our thoughts are true and conditions where they are false. The full causal account of why I form a given thought will naturally be different in the good perceptual case and the bad hallucinatory case. The good case will mention the causal influence of external reality on my perceptual faculties and how this leads to my present experiential state, which in turn rationally supports my thinking. The bad case will explain how features of my brain, or its manipulation by an evil scientist, cause me to be in the same experiential state as in the good case, which then rationally supports my thinking in exactly the same way. 13 The anxiety in question arises when a theorist of McDowell's persuasion tries to provide a realist theory of thought while holding on to the nondisjunctivist story above. On the non-disjunctive account of experience, the obvious differences in the states of external reality do not manifest themselves in any difference in the rational human practice of forming thoughts. From the perspective of rationally evaluating thinking, there is no difference between the envatted thinker's rational practice and the rational practice of the worldly embedded thinker who perceives external reality. Both have exactly the same reasons for forming their beliefs, namely the influence which their epistemologically identical experiential states exert on their judgements.

The anxiety in question arises because we can imagine a thinker whose thoughts refer, not to external reality, but solely to the presence or absence of the evidential experiential conditions shared by both our envatted and embedded thinker. Such a

<sup>&</sup>lt;sup>13</sup> Some common-factor theorist will deny that the bad and the good case involves type-identical experiential states. However, they remain epistemological common-factor theorists as they maintain the crucial claim that the rational import on thinking of these two types of states is identical (Burge, 2009; Schellenberg, 2011). Hence, for the purpose of their role as providers of reasons for thought, the two states are identical. For a general criticism of this gappy-approach to experiential content, see (Gersel, 2019).



31 Page 12 of 18 Synthese (2024) 204:31

thinker surely wouldn't be a realist thinker of the type McDowell takes us to be. For such a thinker there would be no fundamental distinction between a thought being provable as true and its being true, hence his thoughts would be anti-realist in the sense investigated by Dummett. In fact, Dummett (1993c) thinks we are such thinkers, though he opts for a substantially weakened form of anti-realism. As we have seen, McDowell rejects such an 'from the outside' investigation which takes it as an open question whether we are realist thinkers or not. Instead, he is investigating how a realist thinker must conceive of his own consciousness, so as to explain the realist nature of his own thinking. The only way we might, from McDowell's engaged perspective, reach an anti-realist conclusion, is if there are no avenues left for explaining the possibility of human realist thinking. McDowell's argument in favour of truthensuring experiential reasons, and the experiential disjunctivism which enables them, is precisely that unless we acknowledge this conception of the relation between mind and world, then there are no ways of supporting a realist conception of our thinking.

The anxiety inducing problem is that if we accept a non-disjunctivist account of experience, then the distinctions in meaning we wish to postulate between the thoughts of the above anti-realist thinker and ourselves, will be distinctions that cannot manifest themselves in any differences in our rational human practices. And that, according to both McDowell and Dummett, is an unacceptable theory of the meaning of human thought. By abstracting a bit, we can tie all this back to the need for truthensuring experiential support for our thinking. Take any theory of the content of our thinking you prefer. If the reasons that rationally motivate such thinking are never truth-ensuring, then some epistemological intermediary must be imposed between our entertaining of a thought and the satisfaction of its truth-conditions. <sup>14</sup> Given the postulated unavailability of truth-ensuring support for our thinking, it must exclusively be the presence or absence of this intermediary, and others like it, which determine the landscape of our rational practice of thinking. Whatever these non-truth-ensuring intermediaries are, we can imagine another type of thinker, radically unlike us, whose thoughts solely refer to the presence or absence of these intermediaries. Obviously, we wish to distinguish the content of our thinking from the content of the thoughts of this other type of thinker. However, ex hypothesi, the distinctions in meaning we wish to establish will be complete idle in our characterization of our rational practices. The distinctions in meaning will fail to manifest as a difference in any of the rational human practices that constitute our thinking, both as individuals and as a community. Hence, given Dummett's primary premise that distinctions in meaning must manifest themselves in rational practice, we cannot distinguish ourselves from such an antirealist thinker. Therefore, whenever we accept a theory where our reasons for thought are never truth-ensuring, we suffer the anxiety that our thinking may have lost its grip on reality. And this anxiety is well founded, as it is grounded in the requirements on theories about the nature of our own thinking. Hence, McDowell argues, we must, to the degree we can, remove these anxieties. Therefore, his arguments suffice if they simply show the possibility of an alternative conception of our own consciousness which does not give rise to this form of anxiousness.

<sup>&</sup>lt;sup>14</sup> Notice it need not be a metaphysical intermediary unless one takes the epistemological role to be individuated in terms of metaphysics.



Notice, the point pushed by McDowell isn't that we couldn't share any rational practices with such an anti-realist thinker. Realist thinkers may at times rationally form judgements based on the presence of intermediaries that do not entail the truth of their thoughts. All McDowell requires is that the landscape of rational practices must be able to differ somewhere between thinkers whose thoughts have different truth-conditions. And the only way they can differ in the required way, is if we are at times rationally supported in our thinking by truth-ensuring reasons. In some way, the rationality of our empirical thinking ultimately rests on the support derived from experience. Hence, we cannot, as self-conscious theorists, adopt a theory of experiential support which never allows such support to be truth-ensuring. For that type of theory would always allow for the introduction of some version of the kind of anti-realist thinker imagined above. This thinker would share our rational practices of responding to the same intermediaries, but proposedly differ in the content of his thinking. Hence, McDowell's thought does contain the resources we need to explain, why we should take seriously the anxiety he portrays. We should therefore accept that we must, as self-conscious theorists, adopt a picture of conscious experience which allows experiential reasons to provide truth-ensuring support for our thinking<sup>15</sup>. Moreover, as McDowell and others have shown, epistemological disjunctivism provides just such a theory. Whether this position in turn entails various forms of metaphysical and/or phenomenological disjunctivism is then a further question dependent on one's conception of the relation between reasons, metaphysics, and phenomenal properties.

#### 5 A digression in response to the causal theorist

Burge (2010) has developed what is perhaps the most advanced and influential causal theory of meaning. For this reason, it may be useful to see where his disagreement with McDowell is located. Contemporary developments within vision science form the key to Burge's (2010, p. xiii) account of perceptual thought content. Burge claims that experiences themselves possess content and that this content can be determined simply through the resources developed within vision science and evolutionary biology. Theorizing about experiential content has been occupied with the distality problem which tries to explain why experiential content refers to the distal physical object, rather than to the light patterns hitting the retina, a brain state, or some other proximal stimulation. Burge (2003, pp. 685–687) argues that modern vision science manages to solve this issue, such that we can, without considering human rational practices of thought and speech, determine the distal mind-independent objects as the content of experience. Burge's (2003, pp. 689–690) own theory of realist thought

<sup>&</sup>lt;sup>15</sup> Of course, one philosopher's modus ponens is another's modus tollens. Hence, nothing I have said can dissuade a disinclined reader from inferring in the opposite direction and giving up realism in order to avoid disjunctivism. I share with McDowell the conviction that realism of thought is an incredibly central aspect of our common-sense conception of the relation between empirical thought and reality. I therefore accept McDowell's strong presumption in favour of realism. I give no arguments in this paper to persuade an anti-realism inclined reader to do likewise. I owe thanks to an anonymous reviewer for reminding me of this.



31 Page 14 of 18 Synthese (2024) 204:31

is then to argue that our perceptual thinking inherits its mind-independent referents from our experiential content. What is crucial is that Burge takes subjectively indistinguishable hallucinations and perceptions to provide similar rational support for our thinking. He adamantly denies epistemological disjunctivism (Burge, 2005).

Despite continuous discussion, Burge repeatedly fails to appreciate that his elaborate account of experiential content fails to engage with McDowell's anxiety<sup>16</sup>. McDowell could full well accept Burge's theory of the determination of experiential content without this affecting his argument for epistemological disjunctivism, as his fundamental concern is with the nature of thought content, and not experiential content itself. There is nothing contradictory in imagining a thinker whose experiences, considered as phylogenetic representational states of his organism, represent mindindependent reality, but whose thinking is only occupied with the presence or absence of these experiential states themselves, rather than with the mind-independent world they represent. There is nothing impossible about responding to content bearing intermediaries by thinking about the occurrence of these intermediaries themselves. We can after all think about pictures, and not merely about what they depict.

Neither McDowell nor Burge take us to be such thinkers. We think about the world, and not merely about our experiences of the world. But our self-conscious theory about the nature of our thinking must explain what makes our practice of thinking different from the practice of this alternative thinker who only cares about his own experiences. On Burge's theory, this difference cannot be explained in terms of the rational practice of forming thoughts, as Burge claims that we only respond to the presence of such mind-dependent experiential intermediaries when we rationally engage in thought. Whatever rational influence an experiential state has on our thinking, this influence can be shared between cases where those empirical judgements are true and false (Burge, 2009). McDowell, following Dummett, thinks that such an explanation is unacceptable, as distinctions in meaning must be reflected by differences in the rational practice of our thinking. Thinking is fundamentally a rational activity for which we are responsible, hence its normative aspirations as cases of thought, cannot transcend what can, in some way, shape, or form, find reflection in our rational practices. This means that whenever we establish the reference of a tract of thought, our rational practices within that tract must, sometimes and somehow, be supported by truth-ensuring reasons.

The ultimate support for empirical thought is our perceptual reasons. Hence, if we are to be thinkers that refer to mind-independent reality, our experiential relation to reality must sometimes amount to a truth-ensuring reasons-giving relation between the thought supported and the mind-independent reality it concerns. Any relation which fails to be reason-giving has no impact on our rational practice, and thus cannot support the manifestation requirement on distinctions in meaning. Any relation which fails to be truth-ensuring cannot support the needed distinction between realist and anti-realist thought. Epistemological disjunctivism is the logical consequence of

<sup>&</sup>lt;sup>16</sup> Burge (2010) does not share McDowell and Dummett's conviction that Sense must determine reference, hence he would neither be moved by McDowell's argument as I portray it. However, my point here isn't to settle this debate on the nature of content, but merely to point out that this is where the debate about disjunctivism has its roots for McDowell, a point overlooked by Burge (2005).



Synthese (2024) 204:31 Page 15 of 18 31

combining these insights with the indubitable fact that we are, at times, so deceived that we cannot tell our hallucinations from our perceptions.

#### 6 From self-consciousness and back to epistemology

We have now reached the point where we can evaluate the consequences that McDowell's disjunctive theory of truth-ensuring experiential reasons has for our theory of knowledge. We acknowledged that McDowell could not support his radical views about disjunctivism and the possibility of truth-ensuring experiential reasons, simply on the ground that it allows us to avoid a realibilist theory of knowledge. Reliabilism is not so repugnant a theory that it can generate such substantial conclusions within philosophy of mind. However, once the need for truth-ensuring perceptual reasons is demonstrated from the requirements on a realist theory of meaning and, furthermore, shown to be possible upon the adoption of a disjunctive theory of experience, then acceptance of such truth-ensuring perceptual reasons may alter our aspirations within the theory of knowledge.

Taking into account that we do at times form beliefs based upon such truth-ensuring reasons, the question is whether we still feel a compunction to acknowledge that mere reliably true beliefs deserve the status of knowledge. Even McDowell will acknowledge that our perceptual judgements are sometimes based on merely reliable evidence. I may judge that you are home because I perceive your car in the driveway. Such a judgement will be reliably true if you rarely leave the house on foot. If you are indeed at home, we may for some purpose feel propelled to describe my judgement as knowledge. However, would we still feel so driven, when we compare it to my related perceptual judgement that the car is in the driveway, and acknowledge that this latter judgement is directly based on truth-ensuring experiential support. McDowell takes the question of where precisely we set the bar for knowledge to be of little interest. What he takes to be of great interest is that we employ a theory of conscious access to reality which allows us to receive the truth-ensuring experiential support that a realist theory of meaning requires.

I have argued that those who critique McDowell for attempting to derive disjunctivism from a series of controversial presumptions about the nature of knowledge are, in a sense, right. The resources required for developing such an argument are lacking in McDowells texts, as he does not sufficiently support why access-internalism and truth-ensuring reasons are a requirement for knowledge. However, these criticisms also fail, in so far as they are blind to what I take to be McDowell's actual argument in favour of the truth-ensuring nature of perceptual reasons. An argument which then generates the secondary consequences that an independently motivated epistemological disjunctivism may have for our theory of knowledge. This argument starts from McDowell's conception of the requirements on an adequate theory of meaning: his endorsement of the Fregean tenet that Sense determines reference, or in other terms, that distinctions in meaning must be manifestable in rational practices. From this outset the argument derives the need for our thinking to be rationally supported by truth-ensuring reasons. Any self-conscious theory of the nature of thought which cannot allow room for such truth-ensuring experiential reasons will occasion



31 Page 16 of 18 Synthese (2024) 204:31

the well-grounded anxiety that our theory of thought has made us lose sight of how our own thinking could concern a mind-independent reality. McDowell furthermore explains how a disjunctive account of experiential reasons allows for perception to provide such truth-ensuring rational support for our thinking. Hence, if one wishes to critically engage with McDowell's own line of argument, one needs to go all the way back to the premise he inherits from Dummett, which is that any distinction in content within our theory of meaning must manifest itself somewhere in differences in our rational human practices: the Fregean claim that Sense determines reference. A full defence of this initial premise is beyond the scope of this paper, and certainly beyond the topic of this special issue. However, it is where a fruitful engagement with McDowell's own view on the relation between consciousness and knowledge ought to start, and it is a debate that is well served by renewed interest in Michael Dummett's seminal investigation of these questions and their insightful development in the thoughts of Gareth Evans.

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#### References

Brewer, B. (2006). Perception and content. *European Journal of Philosophy*, 14(2), 165–181. https://doi.org/10.1111/j.1468-0378.2006.00220.x

Brewer, B. (2011). Perception and its objects. Oxford University Press. https://doi.org/10.1093/acprof: oso/9780199260256.001.0001

Brogaard, B. (2011). Primitive knowledge disjunctivism. *Philosophical Issues*, 21, 45–73. http://www.jstor.org/stable/41329417

Burge, T. (1979). Individualism and the mental. Midwest Studies in Philosophy, 4, 73–121.

Burge, T. (2003). Social anti-individualism, objective reference. *Philosophy and Phenomenological Research*, 67(3), 682–690. http://www.jstor.org/stable/20140635

Burge, T. (2005). Disjunctivism and perceptual psychology. Philosophical Topics, 33(1), 1–78. http://www.jstor.org/stable/43154709

Burge, T. (2009). Five theses on De Re States and attitudes. In J. Almog, & P. Leonardi (Eds.), *The philosophy of David Kaplan* (pp. 246–324). Oxford University Press.

Burge, T. (2010). Origins of objectivity. Oxford University Press. https://doi.org/10.1093/acprof: oso/9780199581405.001.0001

Campbell, J. (2002). Reference and consciousness. Oxford University Press. https://doi.org/10.1093/0199243816.001.0001



Synthese (2024) 204:31 Page 17 of 18 31

Dummett, M. (1981). Frege: Philosophy of language. Duckworth.

Dummett, M. (1991). The logical basis of metaphysics. Duckworth.

Dummett, M. (1993a). What do I know when I know a language? *The seas of language* (pp. 94–105). Oxford University Press.

Dummett, M. (1993b). What is a theory of meaning? (I). *The seas of language* (pp. 1–33). Oxford University Press.

Dummett, M. (1993c). What is a theory of meaning? (II). *The seas of Language* (pp. 34–93). Oxford University Press.

Eilan, N. (2015). A relational response to Newman's objection to Russell's causal theory of perception. *Theoria*, 81(1), 4–26.

Evans, G. (1982). In J. McDowell (Ed.), Varieties of refernce. Oxford University Press.

French, C. (2020). Naive realism, representationalism, and the rationalizing role of visual perception. Nous-Supplement: Philosophical Issues, 30(1), 102–119. https://doi.org/10.1111/phis.12174

Gersel, J. (2018). What is the myth of the given? In *In the light of experience: New essays on perception and reasons*. https://doi.org/10.1093/oso/9780198809630.003.0005

Gersel, J. (2019). Please mind the gappy content. *Philosophical Studies*, 176(1). https://doi.org/10.1007/s11098-017-1013-3

Gersel, J. (2022). The motivating role of truth in reasoning: A defence of object-dependent Fregean senses. *Erkenntnis*, 87(6). https://doi.org/10.1007/s10670-020-00323-3

Gersel, J. (2024). Separating McDowell's two myths of the given: Or on how to best explain the conceptuality of the space of reasons. [Manuscript submitted for publication]. Copenhagen Business School.

Ginsborg, H. (2011). Perception, generality, and reasons. In A. Reisner, & A. Steglich-Petersen (Eds.), *Reasons for belief* (pp. 131–157). Cambridge University Press.

Goldman, A. I. (1979). What is justified belief? In G. Pappas (Ed.), *Justification and Knowledge* (pp. 1–23). Springer Netherlands. https://doi.org/10.1007/978-94-009-9493-5\_1

Kalpokas, D. E. (2022). A new case of the myth of the given? *Theoria*, 88(5), 927–942. https://doi.org/10.1111/theo.12423

Kripke, S. (1980). Naming and necessity. Harvard University Press.

McDowell, J. (1994). Mind and world. Harvard University Press.

McDowell, J. (1998a). Another plea for modesty. *Meaning, knowledge, and reality* (pp. 108–131). Harvard University Press.

McDowell, J. (1998b). Anti-realism and the epistemology of understanding. *Meaning, knowledge, and reality* (pp. 314–343). Harvard University Press.

McDowell, J. (1998c). Criteria, defeasibility, and knowledge. *Meaning, knowledge, and reality* (pp. 369–394). Harvard University Press.

McDowell, J. (1998d). De re senses. *Meaning, knowledge, and reality* (pp. 214–227). Harvard University Press.

McDowell, J. (1998e). In defense of modesty. *Meaning, knowledge, and reality* (pp. 87–107). Harvard University Press.

McDowell, J. (1998f). Knowledge and the internal. *Meaning, knowledge and reality* (pp. 395–413). Harvard University Press.

McDowell, J. (1998g). Singular thought and the extent of Inner Space. *Meaning, knowledge, and reality* (pp. 229–259). Harvard University Press.

McDowell, J. (2009a). Knowledge and the internal revisited. *The Engaged Intellect* (pp. 279–287). Harvard University Press.

McDowell, J. (2009b). The disjunctive conception of experience as material for a transcendental argument. *The Engaged Intellect* (pp. 225–240). Harvard University Press.

Neta, R. (2008). In Defence of Disjunctivism. In A. Haddock, & F. MacPherson (Eds.), *Disjunctivism* (pp. 311–329). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199231546.003.0014

Pritchard, D. (2008). McDowellian neo-mooreanism. In A. Haddock, & F. MacPherson (Eds.), Disjunctivism (pp. 283–310). Oxford University Press. https://doi.org/10.1093/acprof: oso/9780199231546.003.0013

Putnam, H. (1975). The meaning of 'meaning'. In H. Putnam (Ed.), *Mind, Language and reality* (pp. 215–271). Cambridge University Press. https://doi.org/10.1017/CBO9780511625251.014

Roessler, J. (2011). Causation in commonsense realism. In J. Roessler, H. Lerman, & N. Eilan (Eds.), Perception, causation and objectivity (pp. 103–120). Oxford University Press.

Schellenberg, S. (2011). Perceptual content defended. *Noûs*, 45(4), 714–750. http://www.jstor.org/stable/41330879



31 Page 18 of 18 Synthese (2024) 204:31

Travis, C. (2004). The silence of the senses. *Mind*, 113(449), 57–94. https://doi.org/10.1093/mind/113.449.57

Travis, C. (2007). Reason's reach. European Journal of Philosophy, 15(2), 225–248. https://doi.org/10.1111/j.1468-0378.2007.00257.x

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