

Shepherd on Meaning, Reference, and Perception

Abstract

The aim of this paper is to present an interpretation of Shepherd's account of our most fundamental cognitive powers, most especially the faculty that Shepherd calls perception, which she claims is a unity of contributions from the understanding and the senses. I find that Shepherd is what we would nowadays call a meaning holist: she holds that the meaning of any natural-kind term is constituted by its place in a system of definitions, which system specifies the causal roles of the objects its terms name. Such an account of meaning raises questions about the contact that such a system of definitions, or conceptual scheme, makes with the world. The natural place to seek answers to these questions is in Shepherd's account of perception, which I argue Shepherd takes to be our most fundamental cognitive faculty. Our cognitive lives begin with perceptions, representations of objects as the cause of those very perceptions of them. With this interpretation in hand, I draw a contrast between it and Boyle's and Lolordo's recent work on Shepherd's theory of meaning. I argue that for Shepherd truths about the causal powers of objects are analytic, and that the relevant empirical questions answered by science concern whether our conceptual scheme accurately represents the world. Finally, I provide additional support for this interpretation by showing that it comports with Shepherd's criticism of her philosophical opponents, Berkeley, Hume, and Reid.

The aim of this paper is to present an interpretation of Shepherd's account of our most fundamental cognitive powers, most especially the faculty that Shepherd calls perception, which she claims is a unity of contributions from the understanding and the senses.¹ To that end I begin with the understanding, or reason, the primary role of which is, according to Shepherd, to represent the necessary causal relations that objects stand in to each other and to us. I find that Shepherd is what we would nowadays call a meaning holist: she holds that the meaning of any natural-kind term is constituted by its place in a system of definitions, which system specifies the causal roles of the

¹ My thanks to Samantha Matherne, Manuel Fasko, Keota Fields, Sandra Lindblom, Deborah Boyle, and the anonymous referees who reviewed an earlier version of this paper for extremely helpful feedback, and to the participants of the TEMPO 2022 conference, and my Spring 2021 graduate seminar on Hume and Shepherd at SFSU for equally helpful discussions of related material. Thanks also to Antonia Lolordo and Louise Daoust for their generosity in discussing Shepherd more generally over the past few years.

objects its terms name. 'Fire' is defined as that which results from the combination of spark and kindling; 'spark', in turn, is defined as that which results from the combination of flint and steel, etc. The ways that each of these terms relate to each other via their definitions represent the ways that their objects relate to each other causally. It is the role of the understanding to formulate hypotheses about these causal relations, and to incorporate those hypotheses into the definitions of the terms at hand.

Such an account of meaning raises questions about the contact that such a system of definitions, or conceptual scheme, makes with the world. The natural place to seek answers to these questions is in Shepherd's account of perception. Shepherd takes perception to be "a sensation taken notice of by the mind". The sensation is a sensible quality contributed by the organs of sense, and the mind takes notice of that sensible quality by formulating a hypothesis about its external cause. While that description makes it sound as if a perception involves numerically-distinct contributions from, first, the senses, and then the understanding, I argue that Shepherd actually takes such perception itself to be our most fundamental cognitive faculty. Our cognitive lives begin with representations of objects as the cause of our perceptions of them. Since, as I argue, one's conceptual scheme is therefore primarily directed as forming such object-directed representations, it is directed at and answerable to the world from the very start.

With this interpretation in hand, I draw a contrast between it and Boyle's and Lolordo's recent work on Shepherd's theory of meaning, which casts Shepherd as a progenitor a Kripke, i.e. as holding that our natural-kind terms refer to the essences of objects, and through scientific practice we come to discover *a posteriori* necessary truths about these. By contrast, I argue that for Shepherd truths about the causal powers of objects are analytic, and that the relevant empirical questions answered by science concern whether our conceptual scheme accurately represents the world, or as Shepherd puts it, whether the objects represented by our definitions are real.

Finally, I provide additional support for this interpretation by showing that it comports with Shepherd's criticism of her philosophical opponents, Berkeley, Hume, and Reid. As Shepherd sees it, in portraying cognition as beginning with sensible qualities rather than perception, Berkeley and Hume make an illicit theoretical move, which quickly leads to their idealisms. Shepherd understands Reid as recognizing the untenability of idealism, but missing the foundational error, and so projecting sensible qualities themselves out onto external objects, rather than casting external objects as the *causes* of those sensible qualities.

The Meaning of Natural-Kind Terms

Shepherd's account of mental representation is intimately tied to her account of the causal relation, both because objects' causal powers are the primary objects of our mental representations, and because the mind itself and its representative powers are part of the causal structure of the world. Shepherd articulates and defends her account of the causal relation in *An Essay upon the Relation of Cause and Effect (ERCE)*. Here is Shepherd's definition of 'cause'.

A Cause, therefore, is such an action of an object, as shall enable it, in conjunction with another, to form a new nature, capable of exhibiting qualities varying from those of either the objects unconjoined. This is really to be a producer of new being.—This is a generation, or *creation*, of qualities. *ERCE* 63

As Shepherd sees it, cause and effect is the relation whereby two objects combine to bring into existence some third object. The two objects combined are the causes. The new object is the effect.

An Effect is the produced quality exhibited to the senses, as the essential property of natures [causes] so conjoined. *ERCE* 63

Just as causes are those objects that combine to create a new object, effects are complementarily those objects that result from that combination. Notice that in both passages Shepherd refers to the creation of new natures and qualities. It is important to note that, for Shepherd, an object necessarily has all and only the qualities that it does.

But an object is nothing else (in relation to *us*.) than a mass of peculiar qualities; and when observations inform us, that any known mass is produced by similar circumstances, on various occasions; such mass or object must necessarily contain all its qualities, and be equal to exhibit all its effects in hitherto untried events. (*ERCE* 53-4)

“An object must necessarily contain all its qualities”, so the production of any new quality (an effect) amounts to the production of a new object.² Effects are these new objects; causes are the objects that combine to create them. Notice the final clause in the quoted sentence: an object is must contain all its qualities, and “be equal to exhibit all its effects”. The qualities of an object are

² Fantl 2016 and Fasko unpublished explicitly argue that Shepherd takes objects to be *reducible* to bundles of qualities; and Landy 2020a, Landy 2020b, Rickless forthcoming, and Boyle forthcoming, implicitly endorse that thesis as well. Bolton 2010, Lolordo 2020, and Landy unpublished each present their own alternative interpretations. For current purposes I will assume only the weaker claim that objects are necessarily connected to their qualities.

themselves results of the causal combinations that produce them, and in turn, serve as causes of other such objects. The qualities of an object are specifically causal properties. Therefore, objects are *essentially* capable of combining to form new objects and are equally essentially the products of previous combinations (*EPEU* 281-2).³

As Shepherd sees it, these causal powers are represented by our use of words for these objects. The *meaning* of natural-kind terms includes information about the causal powers that we take objects of that kind to have.⁴

Therefore fire, in order to have a right to the sign of the word fire, for an expression of its attributes, in order to be a “*like cause*,” must of necessity burn as much as it must be red, otherwise the red object were not fire; and *could not have been produced by those causes that elicit that element*. *ERCE* 54

An object is correctly denoted by ‘fire’ only insofar as the object has *all* the causal powers implicitly attributed to that kind of object. For example, an object is a fire only if it is caused by the combination of, say, a spark and some kindling, and is in its turn the cause of burning, and sensations of heat and certain colors. Again,

It becomes therefore part of the definition of fire to burn certain bodies, to melt others; of bread to nourish the human body; of snow to be cold, and white; and these qualities they must have, in order to compose that entire *enumeration of qualities*, for which appropriate names have been formed, and to the exhibition of which similar and efficient causes have been in action. *ERCE* 55

The word ‘fire’ contains as part of its definition that it is applicable only to those objects that burn some bodies, melts others, etc. Similarly, what we mean by the word ‘bread’ includes that which comes from wheat and nourishes the body; what we mean by ‘snow’ is that which is cold and white and falls from the sky, etc. Of course, in defining ‘fire’ as that which arises from the combination of a spark and some kindling, we likewise implicitly give partial definitions of ‘spark’ and ‘kindling’ as those objects that combine to create fire. And, of course, fire can be used to cook bread or to melt

³ For more on Shepherd on causation, objects, and natural kinds, see LoLordo, “Mary Shepherd on Causation, Induction, and Natural Kinds”.

⁴ Shepherd tends to use the idioms of mental representation and a linguistic representation interchangeably, e.g. moving back and forth between discussing names and definitions and the perceptions that correspond to these.

snow, and so both the causal powers of all these objects, and the definitions of the words that designate them, are inter-related. The full definition of ‘fire’ will make use of the words ‘spark’, ‘kindling’, ‘bread’, and ‘snow’, and vice versa, so each of these words is inter-defined. That is, Shepherd appears to be committed to a version of *meaning holism*: the meaning of any word depends on its place in a system of interrelated meanings.⁵

Of course, thus far, all of these are claims about the *meaning* of the term ‘fire’, and it likely occurs to a contemporary reader to wonder how Shepherd thinks of their *referents*. That is, while we might *mean* by ‘fire’ that which is caused by the combination of spark and kindling, and that which causes burning, etc., whatever meets such a description in *our* world, might well have different causal properties in a different possible world. Fire, that which burns in our world, might not have had that power in another world. Meanings serve to fix a referent for a term in our world, but once that referent is fixed, that term refers to that referent in all possible worlds in which it exists, even ones in which it has different causal powers. So, isn’t Shepherd simply mistaken to claim that, “fire [...] must of necessity burn”? Isn’t this to run together a claim about the meaning of the term ‘fire’ with a claim about the object to which that claim refers?

To answer this question, we will need to make use of the full apparatus of Shepherd’s account of mental representation, specifically her account of perception, to which we will soon turn. In the meantime, we can notice now just how tricky an answer to this question is going to be. Recall that we saw a moment ago that an object *necessarily* has the causal powers that it does. So, whereas

⁵ Shepherd makes clear that she takes the scope of the definition of natural kind terms to be quite broad.

Thus we trace the *sensible qualities* of bread to the SECRET CONSTITUTIONS which have partly been put in action, by the sower and reaper or corn, the operations of the miller and the baker; and beyond these to the influence of the air, the sun, and the juices of the earth; which objects as they originally seem to have “come forth from the Father of man” for his use, so have they ever continued too true to their destination, not to be considered as dependant on that “God of seasons,” who has ordained the nourishment of his children to arise from “*bread, earned by the sweat of their brow.*” ERCE 119-20

What it is to be bread includes not just the proximate causes of bread, say the baker and the grain, but also all the many distal causes as well: the sower, the reaper, the miller, the baker, the air, the sun, etc. all the way back to God’s intention for us to be nourished by the fruits of our labor.

we might think of the term ‘snow’, for example, as *meaning* the cold flaky white stuff that falls from the sky, but *referring* to, say, the specific crystalline structure of what happens to meet that description in our world, these two aspects of the term ‘snow’ cannot be distinguished so easily for Shepherd. For Shepherd, the meaning of ‘fire’ will consist of specifically *causal* descriptions, and since an object *necessarily* has the causal powers that it does, what meets that description in our world, say ‘that which burns’, has those same causal powers in all possible worlds in which it exists. This is precisely because being the cause of burning is part of the very essence of that object.⁶ Thus, if the *only* way we fix reference is via a specification of causal powers, and an object necessarily has the causal powers that it does, then meaning and reference cannot come apart. So, if we specify the referent of ‘snow’ via a specification of those causal powers, then it does follow that snow, *qua* that object in this world that causes sensations of cold, necessarily causes sensations of cold in all possible worlds because what is referred to in this way is *necessarily* something with that causal power.⁷ More on this later.⁸

For the moment, the important takeaway is again that Shepherd appears to be committed to a version of *meaning holism*: the meaning of any word depends on its place in a system of interrelated meanings. Meaning holism is a familiar position in contemporary philosophy of language.⁹ However, Shepherd’s version might strike one as particularly implausible. For example, it might appear to imply that we can know the causal powers of worldly objects *a priori*, by doing nothing more than reflecting on the meanings of our terms.¹⁰ Or, to frame what amounts to the same

⁶ Cf. *ERCE* 57, *ERCE* 63, *EPEU* 281-2.

⁷ Of course, there might be other possible worlds in which snow exists, but in which there are no creatures capable of feeling sensations of cold. Still, Shepherd would say, in that world, snow has the *power* to cause sensations of cold. Cf. *ERCE* 46-7.

⁸ Perhaps the most important question left open at this point is whether Shepherd holds that we can describe objects *only* by using descriptions of their causal powers, and if so, whether we must always specify *all* their powers when doing so. Further on, I will suggest that the answer to the both questions are qualified ‘yes’s.

⁹ E.g. Brandom 1994.

¹⁰ Shepherd explicitly denies this thesis: “*a priori*, we know not what particular effect may arise as the results of any given cause” (*EPEU* 327). The precise sense in which she denies it, however, is complicated, and will come out more clearly in the next section.

concern slightly differently, that all true propositions about the causal powers of objects will turn out to be *true by definition*.¹¹ Those are serious worries of which Shepherd appears to be aware. Her response appeals to the possibility of discovering that objects in the world may not be properly designated by the words we use for them.

It follows then from the definitions given in the preceding section, and the reasonings on which they are formed, that were a body in all other respects resembling snow, to have the taste of salt and feeling of fire, it would be an extraordinary phenomenon, no doubt; and one which might for ought we know take place, but it would not be snow; and such a body could not fall from the clouds but by new causes efficient to its formation;—it would therefore, be entirely a different object, and would require a new name; and the phenomenon could offer no ground for the conclusion, that *reason* does not afford an argument, for the expectation of similar effects from similar causes. *ERCE* 69

Shepherd holds that if something white fell from the sky, but caused in us sensations of saltiness and burning, then the object would not be snow or be properly be named ‘snow’. This object would, “require a new name”. Again, objects of the natural kind snow necessarily have the causal powers of snow, so any object with different causal powers, would of necessity be a different kind object. According to Shepherd, while it is true by definition that for something to be properly called ‘snow’ it must feel cold, before touching whatever is falling from the sky to feel it, we cannot yet know that it will feel cold, and so cannot yet know that it is worthy of the name ‘snow’. What we might call our conceptual scheme represents that certain kinds of objects bear certain causal connections to one another, but it might be that the kinds of objects it represents are not the kinds of objects with which we meet in experience. The empirical aspect of our experience is not to be found in the *meanings* of our object terms, but rather in whether those object terms name anything in the world.¹²

¹¹ As we will see in a moment, by contrast with the previous way of putting the concern, Shepherd explicitly endorses this thesis.

¹² One might wonder here about precise dialectical relation between Shepherd’s necessitarian theory of the relation of cause and effect and her holistic theory of mental representation, especially in light of Shepherd’s claim that it is the former that is the foundation of her philosophical system (*ERCE* 39). I here follow Landy 2020, which argues that it is Shepherd’s rejection of Hume’s account of mental representation, and subsequent replacement of it with her own account, that forms the basis of her argument for the causal maxim and all that it entails. In that sense, then, it would be her

Again, a contemporary reader might interject here that it is only a *contingent* fact about snow that it is cold, et al., and that we come to know this fact about it only *a posteriori*. Notice, though, that formulating this thesis requires that we have a way to refer to snow independently of its causal powers. If, for example, I could refer to snow as merely ‘that stuff over there’ then it would be an open question whether that stuff over there feels cold. What I will suggest, however, is that for Shepherd the *only* way we have to fix the referents of our terms is via a description of their causal powers. ‘That thing over there’ is always shorthand for ‘that thing over there with such-and-such causal powers, including causing this perception in me’.¹³ And again, since an object necessarily has the causal powers that it does, in representing that object over there as being of a certain kind, we attribute to it certain causal powers which causal powers it would have in all possible worlds in which it exists. So, all such attributions will be necessarily true. The only question possible, then, about such an object is whether anything meeting that description in fact exists in our world.

But how do we determine whether our object terms name anything in the world? I.e. how do we test our conceptual scheme as a whole in the crucible of experience? In order to answer this question we must look beyond Shepherd’s account of definitions to her account of *perception*: the mental faculty by which definitions are applied to objects of experience.

account of mental representation that is most fundamental, although the causal maxim is, as we will see, a crucial aspect of that account.

¹³ For example, Shepherd defines ‘external object’ as “the object which meeting with any sense excites its action”(EPEU13), and as “the *cause of sensation in general*”(EPEU 40), both of which define objects in terms of their causal relation to us. Furthermore, Shepherd is explicit that this is the most that we can hope to accomplish by way of referring to external objects.

I shall conclude with saying, that as we never can experience the fulfilment of that part of the definition of external objects, viz. their existence after our own ceases; so although it be an inference of high probability, yet it is short of strict demonstration. [...] All we can do is to refer compound similar and various effects, to compound similar and various causes; which occasions an inference that such causes are like ourselves, plus or minus the varieties, and we finding ourselves independent of them, are led to conclude they will in like manner be independent of us. (EPEU 187-8)

All we can do by way of defining external objects is to refer to them via the effects they have on our perceptual faculties.

Shepherd's Account of Perception

Shepherd's meaning holism raises three distinct but related questions:

1. How do we represent that the world contains objects of the kinds represented by our definitions of natural-kind terms? E.g. how does one represent not just that fire burns, but also that the world contains fire?
2. How do we represent not just the natural kind fire, but also that *this particular object here* is fire?
3. Once we represent that the world contains fire, and that this object here is fire, how do we go about answering the question of whether this particular object here *is*, in fact, fire?

Shepherd's distinctive account of our representation of causation answers these questions. But in order to see how it does so, we must first examine Shepherd's account of perception.

Shepherd stipulates at the outset of *EPEU* precisely how she will use certain terms for mental items, and how her usage differs from those of her predecessors (most prominently, Berkeley, Hume, and Reid). Firstly, she uses 'sensation' as the most generic term for any mental item: "sensation [...] is a generic term, comprehending every consciousness whatever" (*EPEU* 6). As she notes, this makes her use of 'sensation' much like Hume's use of 'perception'.

All the perceptions of human mind resolve themselves into two distinct kinds, which I shall call impressions and ideas. T 1.1.1.1; SBN 1¹⁴

What Shepherd calls 'sensations' and Hume calls 'perceptions' include the most generic constituents of the human mind.¹⁵ Under this genus fall a variety of species, such as, "thought, notion, idea, feeling, and perception" (*EPEU* 7). We need not concern ourselves with the differentia of these species, since Shepherd's concern, and ours, is with *perception*, which she defines as, "a "consciousness of sensation," a sensation TAKEN NOTICE OF BY THE MIND" (*EPEU* 9). At

¹⁴ For citations from Hume's *A Treatise of Human Nature* I employ the standard convention of citing the book, chapter, section, and paragraph number from the Clarendon edition, followed by the page number from the Selby-Bigge/Nidditch edition.

¹⁵ Shepherd's terminological idiosyncrasies stand in a long tradition of confusing idiomatic changes. For example, in a footnote to the passage in which Hume stipulates his use of 'perception', 'impression', and 'idea', he notes, "Perhaps I rather restore the word, idea, to its original sense, from which Mr. *Locke* had perverted it, in making it stand for all our perceptions" (T 1.1.1.1n2; SBN 2). Shepherd notes that her use of 'perception' corresponds to Locke's. As we will note later, it importantly differs from Reid's.

first blush this definition seems to indicate that first we have some sensation and then the mind takes notice of that sensation. So, perception is, or depends on, a kind of meta-cognition, a mental state of awareness of another, independent mental state – an existing sensation – that precedes the awareness of it. Shepherd’s later account of perception in *EPEU*, however, complicates this relatively simple picture.

Now I repeat there is one sense in which it may be said that objects are perceived immediately, as existing *outwardly, by the senses*. It is this; *the conscious powers of the understanding, and the senses, are blended together in man; we are analysing them, but in nature they are united as intimately as are the prismatic colors in one uniform mass of light.* (*EPEU* 67)

Here Shepherd is clear that while sensations are the most *generic* kind of mental entity, they are not temporally, metaphysically, or epistemologically, the most *fundamental* kind of mental entity. That status belongs to *perception*. While it is possible to *analyze* perception as composed of the understanding on the one hand, and the senses on the other, these faculties are united in a single uniform faculty of perception. It is not the case that *first* we have some sensation, and *then* through a numerically distinct mental act, a perception that is a kind of awareness of that sensation. Rather, our first encounters with the world are *perceptions*, which can be analyzed into something like their *nominal* parts: those parts that result from the exercise of the senses and those parts that result from the exercise of the understanding. While we might be able to separate out the contributions of the senses, doing so is the result of an analysis of the more fundamental faculty of perception.¹⁶

¹⁶ By ‘nominal parts’ I mean aspects of perception that we can consider separately, but which are, in fact, inseparable from the perception itself. For Shepherd, this involves the faculty of abstraction.

The faculty of abstraction, is truly the origin of all science. By abstraction, is meant the consideration of any quality apart from others with which it may be usually united, in order to notice what inferences may be drawn from its nature. *EPEU* 291

Since Shepherd generally takes qualities to be causal powers, we can understand abstraction as the consideration of which aspects of an object are causally efficacious in which circumstances. (Cf. Fasko 2021: 19.) For example, the hardness of a baseball might cause the breaking of a window, and its roundness might cause it to roll down a hill, but neither of these qualities are separable from the baseball itself. With respect to perception, it is the organs of sense that cause the sensible qualities of a perception, and the understanding which causes those sensible qualities to be represented as

How does Shepherd's account of perception as consciousness of sensation fit with her later account of perception as a combination of the understanding and the senses? Perhaps the simplest answer is that the senses provide the sensation at issue (in this case a sensible quality) and the understanding provides the consciousness of that sensible quality.¹⁷ Notice that in the later passage, Shepherd refers to "the *conscious* powers of the understanding." One might wonder what the understanding does to make the sensible quality conscious. Shepherd answers that question later in the same passage:

This being the case, they [the senses and understanding] are acting in concert when any object affects the senses. Therefore the understanding knowing the simplicity of mental sensation, it follows, that the varieties of the causes, (which create varieties in the effects,) are instantly perceived and detected, and that immediately with the conscious use of the senses; whilst also the mind as immediately mixes that idea of which the understanding is aware; viz. that these varieties, as complex objects, continue to exist unperceived and independant, when unnoticed by the senses. *EPEU* 67-8

What the understanding "adds" to sensible qualities in a perception to make them conscious is knowledge of (or at least hypothesis about) the *causes* of those sensations: "the varieties of the causes [...] are instantly perceived and detected." For one to become conscious of a sensation is to think of that sensation as being caused by some external object.¹⁸ Shepherd repeats this claim later in *EPEU*, where she implicitly distinguishes being *conscious* of a sensation with merely contemplating one:

effects of some external object. However, the contributions of the senses and the understanding are not separable from the perception in which they occur.

¹⁷ Shepherd sometimes uses 'sensible qualities' to refer to the contributions of the senses to the perception of an object, but also sometimes uses it to designate those powers in objects that cause these sensations. I will use it in only the former way, unless explicitly noted.

¹⁸ Notice that Shepherd's thesis here is that for a sensation (the sensible quality) to be conscious, is for the subject whose state it is to be conscious of it by having a higher-order sensation (the perception) that takes that sensible quality as its object. So, Shepherd's thesis bears a certain relation to contemporary higher-order-thought (HOT) theories of consciousness. As we will see in a moment, though, Shepherd does not take the HOT to be numerically distinct from the sensible quality that it represents as caused, but rather takes this sensible quality to be a merely nominal part of the HOT itself! This kind of self-reflexive mental state had precedent in the early modern period,

The perception of external, continually existing, independant objects, is an affair of the understanding; it is a mental vision; the result of some notions previously in the mind, being mixed with each sensation as it arises, and thus enabling it to refer the sensations to certain reasonable causes, without resting merely in the contemplation of the sensations themselves ; by which it comes to pass, that names stand for these compound mixtures ; and that the organs of sense are the instruments which immediately detect the presence of those things which are external to, and independant both of the organs of sense and the mind. *EPEU* 168-9

Taking sensible qualities to be caused by external objects “is an affair of the understanding.” Shepherd adds here that taking sensible qualities to be caused by external objects constitutes a “mental vision” that is a combination of sensible qualities and understanding, “enabling it to *refer* the sensations to certain reasonable causes.”¹⁹ A sensible quality may be merely contemplated. But in perception a sensible quality becomes part of a mental vision that refers to an object insofar as that perception itself represents the sensible quality that is its nominal part as an effect of that object on the mind.²⁰ This understanding of sensible qualities as caused by objects is what conscious awareness of sensations is over and above mere contemplation. It is because the understanding is responsible for causal reasoning that it is implicated in perception along with the senses.

perhaps most infamously in Descartes. For a helpful account of a similar aspect of Reid’s understanding of perception, despite other differences with Shepherd, see Copenhaver 2007.

¹⁹ Cf. “It is not the *feeling as if we were using the eye* which gives *vision*. It is the eye as a *mechanical instrument* in relation to continually existing external objects”(EPEU 56). Visual sensible qualities do not alone constitute literal vision, but rather the eye as a mechanism that relates such sensible qualities to their objects, so mental vision is constituted by the understanding’s relating sensible qualities to their objects.

²⁰ Cf. “Dr. Reid is most unphilosophical in supposing perception to be a power of the mind independant of sensation, and that it can be contradistinguished from it; whereas, although every sensation may not be the perception of an exterior object, acting on either of the five organs of sense, yet there can be no perception of such objects without that inward act of consciousness, which, as a consciousness, is in truth a sensation of the mind”(EPEU 6-7) and “The very words, perception of a thing, state a relation between two existences”(EPEU 28).

We can now return to the question of whether conscious awareness of a sensible quality as being caused by some external object is something *added* to an otherwise non-conscious sensible quality, or whether it is from the perception *as a whole* that we derive the notions of the deliverances of the senses and those of the understanding respectively. Notice Shepherd's repeated use of the idiom of *immediacy* and *instantaneousness* in the passages above. In the first passage, the causes of perceptions are "*instantly* perceived and detected," and this occurs, "*immediately* with the conscious use of the senses," and, "the mind *immediately* mixes that idea of which the understanding is aware." In the second passage, the notion of the cause of a sensible quality is, "mixed with each sensation *as it arises*," and perceptions, "*immediately* detect the presence of those things which are external." Shepherd's insistence on immediacy supports reading perception as a primary *unity*, of which the senses and understanding are mere theoretical abstractions. Our most fundamental kind of sensation is a perception: an awareness-of-sensible-qualities-as-caused. The hyphenation here indicates that such awareness is not a conjunction or congeries of otherwise disparate sensations, e.g. first a sensible quality, then a numerically distinct awareness of it as caused, but rather as a single sensation that is a unity of what can, but need not, be analyzed into an aspect that is a sensible quality and an aspect that is an awareness of this sensible quality. We *immediately perceive* external objects via a perception, and only upon subsequent philosophical analysis do we abstract from this original perception to the notions of the contributions of the senses and understanding.

Shepherd presents her account of our mental faculties in contrast to Berkeley, Hume, and Reid, whom she argues are wrong about the nature of perception. She begins by noting the three components of perception that we have discussed: the object that causes the perception, the contribution of the senses, and the consciousness of sensible qualities as caused by the object that is contributed by the understanding.

The union of the three following things are required to form the proximate cause for that great effect, the formation and combination of those aggregates of sensible qualities usually called objects; namely, first, the unknown, unnamed circumstances in nature, which are unperceived by the senses; secondly, the organs of sense, whose qualities mix with these; and thirdly, the living, conscious powers necessary to sensation in general. *EPEU* 71-2

Shepherd declares that her predecessors' mistake is to take each of these components as numerically distinct, rather than merely nominally separable aspects of the single fundamental faculty of perception.

Final Draft. Please cite only the published version in the *Journal of Modern Philosophy*.

And they all, as I think, err in this, in considering them [“what Berkeley calls “*ideas*,” and “*sensations in the mind*””] as first formed, and then contemplated, and taken notice of afterwards. Whereas, the sensible qualities of things are only formed by being taken notice of. *EPEU* 72

Sensible qualities are formed by being taken notice of. And the taking notice of a sensible quality is a perception. And a perception is a combination of sensible qualities and reasoning about their cause. So, it is *not* that sensible qualities come first, and then a hypothesis about their cause is added to them in perception, but rather that perception comes first – a representation of a sensible-quality-as-caused-by-some-object – which perception is only subsequently treated as involving “distinct” contributions of the other faculties.

I return to the philosophical consequences of the priority of perception in Shepherd’s refutation of Berkeley, Hume, and Reid in the final section. Now we can return to the questions posed at the beginning of this section. Recall Shepherd’s holistic account of natural kind terms. Each kind term includes in its definition the causal relations that the objects to which it refers bear to other kinds of object. ‘Fire’ designates that which is caused by the combination of spark and kindling, and in turn causes burning and sensations of heat, and ‘fire’ means what it does in virtue of the role it occupies in a system of such definitions. At the end of the previous section, we wondered how a holistic conceptual scheme gains purchase on the world of objects it represents, especially in light of the fact that it appears that claims about the causal structure of that world would be *a priori* rather than *a posteriori*.

What we are now in a position to see is that it is via the *perception* of fire that a conceptual scheme containing ‘fire’ gains this purchase on the world. Because perception consists of a combination of a sensible quality – say, heat – and reference to that sensible quality’s cause – fire – a conceptual scheme containing ‘fire,’ deployed in such a perception, purports to pick out a case of fire in the world. In perceiving the sensible quality of heat *as being caused by* fire, the conceptual scheme acquires representational purport: it is not merely a conceptual “frictionless spinning in the void”.²¹ The conceptual scheme is directed at the external world as the causal explanation of our experience of that world. Because perception is our most fundamental cognitive faculty, while we can abstract the contribution of the understanding to perception to form a notion of a set of reciprocally-defined terms that do not bear a relation to the world, such a notion is *derivative* of one

²¹ McDowell 1994: 67.

that connects immediately to the world it represents. Our concept of fire is first acquired in perception: in the nominally compound, but actually unified, act of explaining the existence of a sensible quality of heat in our mind via an appeal to its external cause. Consider Shepherd's claim about the meaning of the word 'table'.

Now the truth is, that no real table is formed, no image of a table is formed, unless the whole united mass of the unknown objects in nature exterior to, and independent of the instruments of sense, (*not yet worthy of the name of "TABLE,"*) unite with the mechanical action of these, and by their means with the sentient principle, in order to *create* in such a union that object which alone can properly be termed "TABLE."

Contrast the view that Shepherd articulates here with that of someone like Hume. For Hume, the word 'table' serves as a prompt to recall certain sensible qualities arranged in a certain manner, e.g. color points in a table-shaped array. By contrast, for Shepherd, the meaning of the word 'table' specifies a table's *causal* qualities, including that a table is the kind of object that causes the kind of array of sensible qualities on which Hume focuses. The contributions of the senses alone are not sufficient for explicating the meaning of 'table', but neither, presumably are the contributions of the understanding. Representing a table requires more than merely thinking of the causal relations in which tables stand to other objects in the abstract. It requires *perceiving* a table: thinking of the table as that which causes my sensible qualities of it. Shepherd continues,

Yet *after* experience, *the* OUTWARD OBJECTS, the CONTINUALLY EXISTING PARTS of the whole causes necessary to the creation of a *table*, must be named by the name by which the whole is named; for there is no other name whereby they can be called, nor any other *ideas* by which the *memory* of them can be introduced into the mind, save by the appearance of "the faint images of those sensible qualities" which their presences originally created. *EPEU* 148-9

There is no application of the word 'table' other than to the outward objects that are the causes of the sensible qualities, "which their presences originally created." Neither the sensible qualities themselves nor the entirely general definitions of 'table' are alone sufficient to account for the meaning of the word 'table'. The meaning of that word is constituted *both* by its place in the conceptual scheme of which it is a part and by its reference to the unknown outward objects that are the causes of our sensible qualities.

The passage above also brings out another important feature of Shepherd's view. Notice that Shepherd emphasizes that the name 'table' names the continually existing parts, "of the whole causes

necessary to the creation of a table,” and insists that, “there is no other name whereby they can be called, nor any other ideas by which the memory of them can be introduced to the mind.” Here Shepherd is insisting that the meaning of ‘table’ includes not just this or that contingent feature of tables, but rather *all* of the causes necessary to its creation. That is, the name table describes the *entire* causal role that we take tables to occupy, and Shepherd holds that it is only in virtue of this holistic definition that we can name tables at all.²² This point is of importance to us because it resolves a question that we had considered earlier. Can’t we refer to a table as something like, ‘whatever object caused my current sensible quality’, and leave open the question of whether it has the causal properties of a table? Aren’t questions of what causal properties belong to tables answered *a posteriori*? We can now see why Shepherd’s answer to this question is ‘no’. Shepherd holds that the only way to fix a referent of a term is via the description that constitutes its definition;²³ she also holds that these definitions describe a holistic set of causal powers. So, what is described by ‘table’ is something with *all* the causal powers of tables, and since an object necessarily has the causal powers that it does, what is described by this holistic definition must have the causal powers that it does in any possible world in which it exists. The relevant *a posteriori* question is not whether tables have such-and-such causal properties, but rather whether anything described by the definition of ‘table’ exists.

Another way to put this latter question, is to ask whether ‘table’ designates some real object, and here is Shepherd on what it means to be real:

they are real which fulfil the definitions for which their names were first formed. The being true to expectations formed of their qualities, is the very criterion of reality. *EPEU* 188²⁴

²² Recall that we saw earlier that Shepherd is explicit that the meaning of ‘bread’ includes such distal causes of bread as the creator’s intention for us to be fed by the fruits of our labor. Cf. n5.

²³ Cf. fn. 13.

²⁴ Notice that this definition of reality is not an isolated instance. Shepherd repeats it throughout *EPEU*.

[...] *real, usual, continually existing things*, which now shall be capable of fulfilling their whole definitions (*EPEU* 32)

The circumstance of objects *fulfilling their definitions, or not*, is what renders them REAL, or the contrary. [...] a *real* object is that which comprehends all the qualities for which its name stands. (*EPEU* 39)

What it means for an object to be real is to fulfil the definition for which its name is formed. Therefore, a definition cannot misdescribe its object, if that object exists. A definition can fail to correspond to any object, but insofar as its object is real, its definition must fit it. This is precisely because the *only* way we have to fix the referents of names is via a holistic description of their causal powers: “there is no other name whereby they can be called.”

While it is true that ‘fire’ has as part of its definition that it is caused by the combination of flint and steel, it also contains as part of its definition that it is the unknown outward cause of my sensible quality of heat. What this earns Shepherd is the answer to at least one of the questions posed at the beginning of this section. Our conceptual scheme purports to be about the world insofar as its constitutive definitions include in their scope that certain kinds of objects are the reasonable causes of our sensations. It also suggests an answer to another of those questions: in virtue of what does one represent not just fire in general, but also that *this particular object* is fire? Since part of the definition of ‘fire’ is that which causes not just some sensation or other, but also *this sensation of which I am currently aware in perception*, it is by deploying the concept ‘fire’ in perception that natural kind terms can be used to refer to particular objects of that kind.

I answer as before, that by *reason* the mind judges that the *causes* of those sensations in particular, which come under the definition of external objects, must needs be *out* of, and distinct from the mind, or the *cause of sensation in general*; for the notion of *outward* existence does not suit the *definition* given to *inward existence*: *Inward existence* is the *capacity for sensation in general*; *outward* existence is the exciting cause for *some sensation in particular*. EPEU 40

[...] they are *real*, if they fulfil the *whole qualities* for which their names first stood (EPEU 34)

Those notions which either alarm or console, are *real*, or the *contrary*, according to their capacity of fulfilling their definitions (EPEU 35-6)

It is when objects fulfil their whole definitions, that they are *real* (EPEU 88)

[...]for the objects in dreams and madness, appear the same in all *present* qualities, as real ones; but they will not fulfil the expectation of the future qualities their appearance is calculated to create (EPEU 115-16)

[...] the scenes are conceived of as *real*, i.e. the colouring is symptomatic as a quality of beings, which will fulfil the remainder of the qualities belonging to their definitions (EPEU 186-7)

Note that Shepherd includes being the cause of particular sensations as part of the *definition* of external objects. It is not the understanding alone that provides complete definitions of objects, but more fundamentally *perception*: the unity of understanding and the senses. It is in representing our sensations as caused (perception) that we first hypothesize that there are objects of certain kinds, with certain causal powers. It is thus part of the definition of fire that it is of a kind that includes objects with the causal powers appropriate for causing *this very sensation*. As we have seen, a sensation of fire-as-the-cause-of-this-sensation is precisely what a perception of fire is. Natural kind terms represent particular objects of those kinds because they first come to be defined in the context of perception, in which objects of particular kinds are hypothesized to be the causes of particular sensations.

A question remains: how does one learn whether this particular object here is, in fact, fire? If ‘fire’ means, in part, whatever object it is that causes this sensation of which I am aware in perception, then does it follow that whatever is the cause of this sensation is thereby fire? Can’t we be wrong about the causes of our sensations? Shepherd’s lengthy treatment of dreaming in *EPEU* indicates that we can. How is this possible?

If ‘being the cause of my sensation of heat’ were the *sole* definition of fire, then we could not be wrong about the causes of our sensations. But it is not the sole definition of fire. ‘Fire’ refers to that which causes my current sensation of heat, *and* is caused by the combination of spark and kindling, *and* causes burning, etc. ‘Fire’ is applicable only to objects meeting *all* of the parts of its definition. If what is causing my current sensation of heat is not fire, but, say, radiation, then what follows is that the concept ‘fire’ has an empty extension, so to speak: it is not applicable to anything.²⁵ Of course, something very similar to fire might still exist in the world: something that has all the causal powers of fire *other than* causing this particular sensation of heat. And we might use the sign ‘fire’ to designate that thing as well, but in doing so, we are strictly speaking redefining that term. Thus, while any true claims about the causes and effects of fire are true by definition, this leaves open the possibility that no such thing exists. Our conceptual scheme as a whole purports to

²⁵ Armed with the causal maxim that Shepherd establishes at the start *ERCE*—that no object can begin its existence uncaused—and its corollary—that like effects are always produced by like causes, and vice versa, we can determine which particular objects are causally related by an *experimentum crucis* (*ERCE* 94). Shepherd is confident that we can use this procedure to determine the causes of our sensation, even though these will be certain unknown external objects.

represent the causal relations between objects in the world as a whole, but it might not do so. It might be that we discover that we are in need of some entirely different conceptual scheme.

Thus do we find Shepherd describing the process whereby we engage in *hypothetical reasoning* about the causal powers of objects in relation to our sensations.

the unknown causes of all our perceptions, are as the unknown quantities in algebra, which yet may be measured, valued, reasoned on by their signs; and the signs of these outward objects are the sensations they can create; and they may always be spoken of, and compared together, as though they did truly exist, in these forms in which they appear to the mind.

EPEU 47-8

We use the signs of objects, sensations, in order to form a hypothetical picture, “the forms in which they appear to the mind”, of how objects relate to each other in the world, “as though they did truly exist”. These forms together constitute the conceptual scheme of interrelated definitions that I have been describing. The question that we then confront about such a conceptual scheme is whether the objects that it portrays “truly exist,” as it portrays them, “in these forms”. Or, as we earlier saw Shepherd put it, whether the objects described by such a conceptual scheme are “real,” i.e. whether the objects represented fulfill their definitions.

One way to put my thesis, then, is that for Shepherd, we bring hypotheses about causal powers to perception in order to test them in the crucible of experience, rather than, say, deriving these hypotheses from experience itself. Shepherd does, however, sometimes write in a way that seems to imply the opposite order. For example, in arguing that it is reason rather than custom that affords us a notion of cause and effect, she reconstructs the reasoning at work in perception as follows.

Here is a new quality, which appears to my senses: But it could not arise of itself; nor could any surrounding objects, but one (or more) affect it; therefore that one, (or more) have occasioned it, for there is nothing else to make a difference; and a *difference* could not “*begin of itself*”. *ERCE* 43-4

The point that Shepherd is making here is that, *contra* Hume, repeated experiences of co-occurrence are not necessary for us to form a hypothesis about relations between causes and effects because the causal maxim affords us a principle that allows us to determine causes from a single instance. What is important to us just now, though, is her description of how this takes place. That description suggests a picture of causal reasoning according to which we *first* encounter some new object or quality, the causal powers of which we have no representation. *Then* we engage in some experimental

reasoning about its hypothetical cause, and *finally* conclude that such-and-such and object (of an unknown kind) is the cause of that new quality. I.e. it suggests that we do not come to experience with a set of definitions that represent a hypothetical world of causes, and test it against the actual world. Rather we observe the world first, and then use reason to deduce its causal structure.

However, this appearance is belied a short while later when, Shepherd reflects on this very same process.

If then an existence now in being, *conjoined with any other*, forms thereby *a new nature*, capable of exhibiting *new qualities*, these new qualities must enter in to the definition of the objects; they become part of their natures; and when by careful experiment, or judicious observation, no new preventing circumstances are supposed to make an alteration in the conjunction of the same bodies, the *new qualities*, that are named *effects*, are expected without a doubt to arise upon every such conjunction; because, they as much belong to this *newly combined nature*, as the original qualities did to each separate nature, before their conjunction. *ERCE 47*

Suppose we have two objects that we know to have certain causal powers. The definitions of those objects will include those causal powers. So, for example, we might represent that fire causes sensations of heat, and snow sensations of cold. Now we combine those objects and discover that they have previously unknown causal powers: the fire melts the snow. Notice that what Shepherd describes as happening in this case is that, “these new qualities must enter into the definition of the objects” and that this new effect is subsequently, “expected without a doubt to arise upon every such conjunction.” What this suggests, again, is that rather than learn, of fire, that it melts snow, as Shepherd understands it, the primary role of empirical observation is to allow us to test whether the definition we already have of fire is a good one (accurate and complete). When we discover that it is not, because it does not include melting snow among the powers of fire, we must *alter that definition*. We change what we mean by ‘fire’ so that it includes melting snow, and we thereby come to a definition of fire (and snow) that comes closer to representing something that “truly exists” or “fulfills its definition”.

What of the earlier passage, then, where Shepherd describes us as first encountering a new quality, then searching for its cause, and only subsequently hypothesizing the nature of that cause? Well, I would suggest that that portrayal is an abstraction of the nominal parts of what I have described previously as a more fundamental unity. It is a just-so story. We can abstract from perception the different contributions of the senses and reason, and so portray these as sequential contributions, but really they are “united” or as she say a few pages after presenting that very

description of experience, that experience consists of a single “compound” idea (ERCE 46). Because the causal maxim is an *a priori* principle of reason, we already, so to speak, come to experience expecting every event to have a cause. And because perception itself is suffused with reason, to even so much as perceive an object, is in the same sense, already to hypothesize it as the cause of the very sensation that is our perception of it.

How, then, do we know what the essence or essential properties, of a natural kind are? And what role does experience play in discovering these? Shepherd’s answer is that we use “good sense [...] observation enables it [the mind] to judge, when an object is presented, what *causes has been used in its formation*”(ERCE 102-3). The answer that I discern in Shepherd is that we guess, and then test those guesses against experience to see if what we have hypothesized, the “reasonable causes”, are real, or truly exist. To use Shepherd’s own analysis of the situation, one finds oneself with some sensation. Armed with the causal maxim, one knows that this sensation cannot have caused itself, so one hypothesizes that it was caused by some object in the local environment. Of course, since that object too must have a cause, one forms a further hypothesis about its cause, etc. Now, while I have, following Shepherd, described that process sequentially, because the hypothesized causes are all part of the definition of the (internal and external) objects at hand, that is potentially very misleading. Rather, in first thinking of a sensation at all, I think of it as a sensation-caused-by-some-external-object. And in thinking of that external object, I think of it as an object-caused-by-some-other-object-and-causing-my-sensation-of-it. Etc. That is, to think any of these objects individually, I think form a holistic set of definitions that represent them as causally related to each other, and indirectly to all other objects. (Recall again that Shepherd includes in the definition of bread such distal causes as the creator’s intention for us to benefit from the fruits of our labor.) Such a set of definitions, however, might not be applicable to the world; its objects might not be “real,” or “fulfill their definitions,” or “truly exist”. So, I observe the world, and the appearances of causes and effects in it, to determine whether this set of definition will do, or whether I am in need of a new one. In a sense, that is the primary job of perception: to represent a particular sensation as having some particular cause, thus allowing us to put our entire holistic set of definitions into the crucible of experience.

As such, perception is our most fundamental representative faculty. In perception, we represent a sensation-as-caused-some-external-existence. We can analyze such representations into contributions of the senses, sensible qualities, and contributions of reason, becoming conscious of sensible qualities as caused, etc. The understanding’s contribution consists in part of a system of definitions that represents the world, including our minds, as having a certain causal structure. It is

in virtue of this system's including the very sensible qualities to which it is applied in perception that the system as a whole gains representational purport: that it represents not only kinds, but also objects as individuals of those kinds, and that it can either successfully or unsuccessfully be tested in the crucible of experience.

Meaning Revisited

With the substance of this interpretation now in hand, it is worth noting that others interpret Shepherd's accounts of meaning and reference, and by extension perception, differently. For example, Lolordo 2019 confronts the worries about Shepherd's claim that it is part of the *meaning* of 'snow' that it causes a feeling of cold, and offers a reply that is different from the one offered above.

Shepherd might think it's part of the concept of snow that it's cold, she does not in general think that truths about the causal powers of objects are analytic. Lolordo 2019: 10n24
Shepherd does not use the Kantian distinction between the analytic and the synthetic, but if she did, she would say that truths like fire consumes its fuel are synthetic, *a posteriori* necessities. Lolordo 2019: 11n25

One can understand wanting to avoid attributing to Shepherd the view that 'snow causes a feeling of cold' is analytic, but it is not clear how Lolordo proposes to do so, especially in light of her admission that, "it's part of the concept of snow that it's cold". That sounds like the very definition of analyticity that Kant offers: that the predicate is contained in the concept of the subject (A6-7).²⁶ This suggests that these are analytic truths after all, although it remains an open question whether the system of definitions of which they are a part applies, as a whole, to the world. Either way, Lolordo's description of how we learn what she casts as synthetic *a posteriori* necessities is precisely what we have already described.

How can I tell, for instance, whether the glass on the kitchen counter contains water or sulfuric acid? One option is just to examine it more closely. If the liquid is syrupy, it's not water. A second option is to experiment with it, to see how it behaves in different circumstances. If a slice of lemon in the glass appears unaffected, it's not sulfuric acid.

Lolordo 2019: 10

Lolordo's question is how we can tell whether the glass on the kitchen counter contains water or sulfuric acid? I would reframe that question: how can we tell whether what is in the glass meets the

²⁶ All citations from the *Critique* are to Kant 1998. I use the standard convention of citing the page numbers of the original A and B editions.

definition of ‘water’ or ‘sulfuric acid’. Either way, the procedure for answering these questions is the same: perform experiments to determine the causes and effects of what is in the glass. My disagreement with Lolordo concerns how to interpret Shepherd’s claims about the meaning of terms like ‘definition’.

Boyle also endorses a view like Lolordo’s, interpreting Shepherd as anticipating Kripke’s necessary *a posteriori* propositions.²⁷ Boyle carefully distinguishes what she calls nominal or “absolute” (ERCE 157) definitions from *real* definitions. A nominal definition is merely a name for certain enumerated sensible qualities. For example, we might use the name ‘gold’ to apply to a collection of sensible qualities such as yellow, shiny, metallic taste, etc. Real definitions, by contrast, aim at representing the causal powers of their object. Gold is that which causes those sensible qualities in us and also dissolves in *aqua regia*, etc. Boyle interprets Shepherd as holding that while we can know the nominal definitions of objects *a priori*, we have to *discover* their real definitions, their causal powers, *a posteriori*. Boyle also notes Shepherd’s explicit endorsement of Locke’s use of ‘definition’ in just these ways.

Kripke formulates his account of the meanings of names and natural kind terms against the background of Russell’s account of names as definite descriptions.²⁸ Kripke objects to Russell in part on the grounds that we could discover that arbitrarily many (or even all) of our beliefs about, say, Plato are wrong. For that to be possible, the name ‘Plato’ would have to designate Plato independently of those beliefs. So, Kripke concludes that the meanings of names and natural-kinds terms are constituted entirely by their rigidly-designated referents, and not by their associated senses. ‘Water’ refers to that kind of thing over there in the lake (which, it turns out, is H₂O), regardless of what we might believe about it. Thus, we have to learn *a posteriori* that water is H₂O, even though when we do so, what we come to learn is necessarily true.

Consider the question of whether Kripke is right that a person could be wrong about arbitrarily many of her beliefs about water while successfully referring to water. If Lolordo and Boyle are right, then Shepherd holds that ‘water’ refers directly to the essence of some object, its real definition. While we can determine what the causal powers of that object are via experiments, we

²⁷ Miren Boehm has made the same comparison in correspondence, and Fields unpublished is a thorough explication of the similarities and differences between Kripke and Shepherd along these lines.

²⁸ Kripke 1980.

might turn out to have arbitrarily many false beliefs about those causal powers (especially before our experiments). I hold that Shepherd could not endorse this scenario. The key to seeing why is to see how Shepherd's holistic account of the meaning of natural kind terms interacts with a causal theory of reference. In order for meaning and reference to come apart, one would have to be able to fix the reference of 'water' using some feature of water that it might not have in some other possible world. As Shepherd sees it, though, since the essence of any object is necessarily connected to its causal powers, and the holistic meanings of our terms purport to represent the causal powers of the objects that they describe, if those terms describe anything at all, they describe that object as having the causal powers that it has in all possible worlds. We can't be wrong about whether snow is cold because 'snow' means that which is cold. So, if 'snow' describes anything in the actual world, it describes something with the causal power to produce sensations of cold. Since snow necessarily has its causal powers, if snow exists in any other possible world, it will likewise have the power to cause sensations of cold there as well. Anything that is like snow, but is not cold is not worthy of the name 'snow'. The sense of 'snow' is part of the meaning of that natural-kind term, and since reference is fixed via the application of such natural kind terms to objects in perception, 'snow' also refers to an object only insofar as that object necessarily has the causal powers attributed to it. Nothing can be snow that does not fit that definition.

I agree with Lolordo and Boyle that the referent of natural kind terms plays an important role in Shephard's account. Just as, for Kripke, we use 'water' to designate that kind of thing over there in the lake, part of the meaning of 'snow', for Shepherd, is that which is the cause of my present perception. However, because that aspect of its meaning is essentially constituted by its place in a holistic system of such definitions, whether what causes my sensation of cold is snow will also depend on whether it has the other causal powers appropriate to an object of that name. The *a posteriori* question that needs to be answered by experience and experiment is not, most fundamentally, whether my beliefs *about snow* are true, but rather, as we saw Shepherd put it earlier, whether snow is *real*, whether anything fulfils the definition of 'snow' (EPEU 188). Shepherd's claim that perception consists of contributions from both understanding and the senses is best understood by interpreting her as committed to the claim that the meaning of a natural kind term is its holistic definition, including its role in being perceived, and its referent is that object which satisfies that definition in this, and all other possible worlds.

Shepherd's Use of her Account of Perception

The present interpretation of Shepherd has profound implications for understanding her criticisms of her philosophical predecessors. For example, as Landy 2020 points out, if we conceive of perception as the original fundamental faculty, then Hume's opening gambit in the *Treatise*—his claim that our minds consist of just impressions and ideas, or as Shepherd would put it, sensible qualities and contemplations of sensible qualities—is a nonstarter. If impressions and ideas are themselves theoretical abstractions from the more fundamental faculty of perception, then Hume owes us an argument showing that we must artificially limit our philosophical resources to just these two aspects of it. Landy illuminates the problem by highlighting the different treatments of the meaning of the world 'table' that Hume and Shepherd offer. Here is Hume:

The table in front of me is alone sufficient by its view to give me the idea of extension. This idea, then, is borrow'd from, and represents some impression, which this moment appears to the senses. But my senses convey to me only the impressions of colour'd points, dispos'd in a certain manner. If the eye is sensible of any thing farther, I desire it may be pointed out to me. But if it be impossible to show any thing farther, we may conclude with certainty, that *the idea of extension is nothing but a copy of these colour'd points, and of the manner of their appearance.* (T 1.2.3.4; SBN 34, emphasis added)

Our complex idea of a spatial complex comes to represent the spatial complex that it does by being a collection of simple ideas of colored points arranged in a way that exactly resembles the arrangements of the spatial complex being represented.²⁹ We represent the relation that some simple impressions stand in relative to one another by arranging simple ideas of each of these impressions into the same relation. We represent *a* as being next to *b* by placing an idea of *a* next to an idea of *b* in phenomenological space. The idea of a spatial complex is nothing more than a spatial complex of ideas. Contrast that with Shepherd's treatment of the same representation:

Now the truth is, that no real table is formed, no image of a table is formed, unless the whole united mass of the unknown objects in nature exterior to, and independant of the instruments of sense, (not *yet worthy of the name of* 'TABLE,') unite with the mechanical action of these, and by their means with the sentient principle, in order to *create* such an union that object which alone can properly be termed 'TABLE.' Yet *after* experience, *the* outward

²⁹ Cf. For the ongoing discussion of Hume's theory of mental representation, cf. Cohon and Owen 1997, Garrett 2006, Schafer 2015, Landy 2018, and Cottrell 2018.

Final Draft. Please cite only the published version in the *Journal of Modern Philosophy*.

OBJECTS, the CONTINUALLY EXISTING PARTS of the whole causes necessary to the creation of a *table*, must be named by the name by which the whole is named; for there is no other name whereby they can be called, nor any other *ideas* by which the *memory* of them can be introduced into the mind, save by the appearance of ‘the faint images of those sensible qualities’ which their presence originally created. (*EPEU* 148–49)

Shepherd’s account of the representation of a table begins by drawing a distinction between *what* we see – a table – and what we see *of* what we see, say, the facing surface of the top of the table. While ‘the faint images of [the] sensible qualities’ of the table in some sense represent just the sensible qualities that correspond to the seen parts of the table – say a rectangular patch of brown – what our idea *of the table* represents, is precisely that such sensible qualities are the result of our perspectival encounter with *a table*, which comprises many other possible and actual sensible qualities united by the idea of the table as their common cause. ‘Table’ is the name of a complete object, not just the name of certain of the sensible qualities that such an object excites in the mind of someone perceiving it.³⁰

Hume constructs the idea of a table from just sensible qualities. From Shepherd’s point of view, this is a deliberately impoverished approach, which Shepherd rejects for the very reason that Hume himself embraces. Shepherd and Hume agree that one cannot construct the notion of the table as a continually existing locus of causal powers from sensible qualities alone. Hume concludes that we have no idea of such a table. Shepherd concludes that we must have representative resources over and above those afforded by the table’s sensible qualities alone.

Shepherd makes a similar series of points arguing against first Berkeley and then Reid.³¹

³⁰ Although, as we have seen with respect to nominal definition, in more conciliatory moments, Shepherd does admit that we *can* use names to refer to sensible qualities alone, so long as we are careful not be confused into drawing illicit philosophical confusion in doing so.

Now the names for the qualities, may indifferently be applied to the causes, or external objects, or to the effects the inward perceptions; or to both together, as compound beings. It is in the latter sense they are always popularly applied, and on account of which circumstance there has been so much confusion in the minds of philosophers upon the subject. *EPEU* 61

³¹ In fairness to Reid, he also takes perception to be the most fundamental representational faculty, although he means something different by ‘perception’ than Shepherd does. Whereas Shepherd

Final Draft. Please cite only the published version in the *Journal of Modern Philosophy*.

Berkeley never affixed the names of objects to any thing, but the combined sensible qualities which the organs of sense helped to form; omitting the idea of their constant ability, to return upon the sense when called for, and of outwardness being equally a regular attendant upon their appearance, and a capacity in nature necessary to their existence in relation to us, and to our own in relation to them; which circumstances are included in their names. *EPEU* 68

While one might be able to offer a nominal definition of ‘table’ as applying to a mere collection of sensible qualities, the real definition of ‘table’ *includes in it* a conception of the table as that which causes those sensible qualities. The definition of ‘table’ applies to the object of *perception*, not just the contribution of the senses, and so any philosophical account that begins with the latter has already made a series of implicit illicit theoretical moves to arrive at that starting point.

His method of incomplete definition, and naming only the combined sensible qualities the effects of things, when all men name them as united with the perceptions of the understanding, and the observations of experience, is the reason why his philosophy seems at once plausible, contradictory, and unanswerable. *EPEU* 69

Berkeley’s philosophical system substitutes nominal definitions for real ones. Shepherd calls for an *argument* that the contributions of the senses to that perception can be separated from it despite perception’s being our most fundamental representative mental faculty.

Shepherd aims to shift the burden of proof. Hume and Berkeley *begin* by limiting our legitimate cognitive faculties to sensible qualities (and certain of their behaviors) and draw radical conclusions from this starting point. Shepherd’s account of perception calls into question that beginning. If our thinking begins with perception, which is a combination of the senses and reason, then by what right do Hume and Berkeley limit the scope of our representative powers to a merely nominal aspect of that faculty?

Reid, it turns out, makes a similar mistake, as Shepherd sees it. He accepts Berkeley’s and Hume’s restrictions on our representational powers, denies their idealisms, and ends up with the world as itself consisting of sensible qualities, rather than the cause of sensible qualities in our minds.

Whilst Dr. Reid, when he asserted, that the primary qualities are conceived by clear ideas of them as they exist when unperceived, and unlike any sensation they yield, was not aware that

appears to take perception to require an epistemic contribution from the understanding, Reid takes it to be a more direct result of the mind’s encounter with an object. Cf. Copenhaver 2007: 615.

Final Draft. Please cite only the published version in the *Journal of Modern Philosophy*.

he explained these conceptions of unperceived qualities, by other qualities which still require the senses, in order to their formation; and therefore such as could only exist in a sentient being. Thus he explained "hardness," as "a firm cohesion of parts;" "figure" as "the relation of parts to each other;"—"visible figure," as "the relation of parts in respect to the eye;" "sound" by "the vibrations of the air," &c. &c.—as though these things, after being perceived, could be planted as they appear to the inward sense and consciousness of the soul, outwardly again, as independent modes of existence, and objects of contemplation; as though the very system he is arguing against does not suppose cohesion, parts, vibrations, figure, &c. &c. &c. to be perceptions, which are inward; because all perception is conscious, and all consciousness is inward and sentient; thus assuming as his premises the very idea which is in question; and which premises involve the difficulty his argument is raised to answer. *EPEU* 70-1

Hume and Berkeley confine our representational powers to awareness of sensible qualities (and their dynamics) and conclude that all that we can represent using those powers are further sensible qualities. As Shepherd sees it, Reid accepts the mistaken premise about sensible qualities, but recognizes that we can represent external existence nonetheless, and therefore concludes that external existence must itself consist of sensible qualities. But his assumption that we can represent external objects begs the question against Hume and Berkeley. Reid needs to reject some premise of their argument in order to undermine their conclusions. This is precisely what Shepherd takes herself to have done.³² She rejects the theory of mental representation on which their idealisms are founded. Our most fundamental representational faculty is perception, which is more than merely the deliverances of the senses, and so our most fundamental representational faculty already includes in it the power to represent that-which-causes-sensible-qualities.

References

Bolton, Martha Brandt. 2010. "Causality and Causal Induction: the Necessitarian Theory of Lady Mary Shepherd." In *Causation in Modern Philosophy*, edited by Keith Allen and Tom Stoneham, 242–61. London: Routledge.

Boyle, Deborah. *Mary Shepherd: A Guide*. Forthcoming.

³² Cf. Bolton 2010, Landy 2020, Folescu forthcoming, Rickless forthcoming.

Final Draft. Please cite only the published version in the *Journal of Modern Philosophy*.

Cohon, Rachel and Owen, David. 1997. 'Hume on Representation, Reason, and Motivation', *Manuscripto* 20, 3: 47-76.

Cottrell, Jonathan. "Hume on Mental Representation and Intentionality." *Philosophy Compass* 13, 7: 1–12. DOI: <https://doi.org/10.1111/phc3.12505>.

Copenhaver, Rebecca. "Reid on Consciousness." *The Philosophical Quarterly* 75 229: 613-34.

Fantl, Jeremy. 2016. "Mary Shepherd on Causal Necessity." *Metaphysica* 17 1: 87-108.

Fasko, Manuel. unpublished. "A Powerful Metaphysics? A case for Mary Shepherd's proto-dispositionalism."

Fields, Keota. Unpublished manuscript. "Mary Shepherd on Necessary A Posteriori Truth."

Folescu, M. Forthcoming. "Mary Shepherd on the Role of Proofs in Our Knowledge of First Principles." *Nous*.

Garrett, Don. 2006. 'Hume's Naturalistic Theory of Representation', *Synthese* 152, 3: 301-19.

Hume, David. 1974. *A Treatise of Human Nature*. Edited by L. A. Selby-Bigge. New York: Oxford University Press.

Hume, David. 2000. *A Treatise of Human Nature*. Edited by David Fate Norton and Mary J. Norton. New York: Oxford University Press.

Kant, Immanuel. 1998. *Critique of Pure Reason*. Translated by Paul Guyer and Allen W. Wood. Cambridge: Cambridge University Press.

Kripke, S. (1980). *Naming and Necessity*. Cambridge, MA: Harvard University Press.

Landy, David. Unpublished. "Is Shepherd a Bundle Theorist?"

Landy, David. 2020a. ""A Defense of Shepherd's Account of Cause and Effect as Synchronous." *Journal of Modern Philosophy* 2 1: 1-15

Landy, David. 2020b. "Shepherd on Hume's Argument for the Possibility of Uncaused Existence." *Journal of Modern Philosophy*, 2, 1: 1 – 14.

Final Draft. Please cite only the published version in the *Journal of Modern Philosophy*.

- Landy, David. 2018. "Recent Scholarship on Hume's Theory of Mental Representation," *European Journal of Philosophy* 26 1: 333-47.
- Lolordo, Antonia. 2019. "Mary Shepherd on Causation, Induction, and Natural Kinds." *Philosopher's Imprint* 19 52: 1-14.
- Lolordo, Antonia. 2020. *Mary Shepherd's Essay on the Perception of an External Universe*. Oxford: Oxford University Press.
- Rickless, Samuel. Forthcoming. "Shepherd's Argument for the Causal Maxim."
- Rosenberg, Jay F. 1994. *Beyond Formalism: Naming and Necessity for Human Beings*. Philadelphia: Temple University Press.
- Schafer, Karl. 2015. "Hume's Unified Theory of Mental Representation," *European Journal of Philosophy*, 23, 4: 978-1005.
- Shepherd, Mary. 1824. *An Essay upon the Relation of Cause and Effect*. London: T. Hookham.
- Shepherd, Mary. 1827. *Essays on the Perceptions of an External Universe*. London: John Hatchard and Son.
- Wilson, Jessica. Forthcoming. "On Mary Shepherd's *Essay upon the Relation of Cause and Effect*." In *Neglected Classics of Philosophy*. Ed. Eric Schliesser. Oxford University Press.