

to do so when confronted with conflicting arguments that appear equipollent to him. Although some scholars defend this rationalist interpretation, most think that suspension is a state in which the Pyrrhonist finds himself due to his own psychological constitution, by virtue of which he cannot avoid withholding his assent whenever conflicting arguments strike him as equipollent. This interpretation finds support especially in two passages. At *PH* I 7, Sextus remarks that the skeptical approach is called “‘suspensive’ because of the affection (*pathos*) that comes about in the inquirer after the investigation.” And at *PH* I 192, when explaining the meaning of “non-assertion” (*aphasia*) – which is another word with which Sextus refers to the state of suspension – he points out that “non-assertion is an affection of ours because of which we neither posit nor reject anything.” The term *pathos* refers to what happens to someone or something as a result of being affected by an agent in the broad sense of this term; it denotes the physical or psychological state or condition in which the affected person or thing comes to be. The Pyrrhonist is affected by seemingly equipollent arguments in such a way that he ends up, as a matter of psychological fact, in a suspensive state of mind. Suspension is therefore something that imposes itself upon the Pyrrhonist, and so something he accepts passively, in much the same way in which he accepts such affections as the feelings of hunger and thirst, and those of coldness and heat (*PH* I 13, 19). It would nonetheless be a mistake to claim that the Pyrrhonist is an anti-rationalist or that he renounces reason altogether, for he keeps using his rational faculty but without being committed to its reliability. He reports that, when exercising his natural capability of thinking (*PH* I 24) in his inquiries, he finds himself forced to suspend judgment about the truth of the claims and the soundness of the arguments under examination. His suspension is the result of the use of reason, but this use is neither doxastic nor normative because he does not believe (or disbelieve) that the requirements of rationality are true and, hence, does not claim that we should suspend judgment.

PH I 7 shows that Sextus takes suspension to be intimately connected with inquiry: suspension about whether *p* is a state of mind reached after having inspected the arguments for and against *p*. Sextus also seems to think that only the suspender of judgment can remain engaged in open-minded inquiry (*PH* I 1–3, II 11). This conception of suspension and of its connection with inquiry has exerted a decisive influence on recent discussions of both notions in analytic epistemology, even though such an influence is not always duly acknowledged.

The Sextan Pyrrhonist does not claim that truth-directed investigation is endless or that it is doomed to

failure, for making such a claim would mean that he believes that things are inapprehensible. When contrasting the Pyrrhonian outlook with that of Carneades (see CARNEADES) and Clitomachus, Sextus points out that “the skeptic expects it to be possible for some things to be apprehended” (*PH* I 226). Likewise, when explaining the skeptical phrase “All things are inapprehensible,” he remarks that he does not assert that all the non-evident matters investigated dogmatically that he has inspected are of such a nature as to be inapprehensible, but merely reports that they appear so to him owing to the equipollence of the opposites (*PH* I 200).

See also: MONTAIGNE; PYRRHONISM; SCEPTICISM (Volume 1); STOIC EPISTEMOLOGY.

Further Reading

- Annas J. and Barnes J.: *The Modes of Scepticism: Ancient Texts and Modern Interpretations* (Cambridge: Cambridge University Press, 1985).
- Annas J. and Barnes J.: *Sextus Empiricus: Outlines of Scepticism*, 2nd edn (Cambridge: Cambridge University Press, 2000).
- Bailey A.: *Sextus Empiricus and Pyrrhonian Scepticism* (Oxford: Oxford University Press, 2002).
- Barnes J.: *The Toils of Scepticism* (Cambridge: Cambridge University Press, 1990).
- Bett R.: *Sextus Empiricus: Against the Logicians* (Cambridge: Cambridge University Press, 2005).
- Machuca D.: “Is Pyrrhonian Suspension Incompatible with Doubt?” *Midwest Studies in Philosophy* 45 (2021), 27–55.
- Machuca D.: *Pyrrhonism Past and Present: Inquiry, Disagreement, Self-Knowledge, and Rationality* (Cham: Springer, 2022).
- Mates B.: *The Skeptic Way: Sextus Empiricus's Outlines of Pyrrhonism* (New York: Oxford University Press, 1996).
- Perin C.: *The Demands of Reason: An Essay on Pyrrhonian Scepticism* (Oxford: Oxford University Press, 2010).
- Striker G.: “The Ten Tropes of Aenesidemus,” in *The Skeptical Tradition*, ed. M. Burnyeat (Berkeley and Los Angeles: University of California Press, 1983), 95–115.

DIEGO E. MACHUCA

Lady Mary Shepherd's Epistemology

Introduction

Lady Mary Shepherd, neé Primrose (1777–1847), is a Scottish Philosopher of the modern period, active at the beginning of the nineteenth century.¹ The declared aim of her two books, *An Essay upon the Relation of Cause and Effect* (2024; 1824; ERCE, henceforth) and *Essays on the Perception of an External Universe, and Other Subjects Connected with the Doctrine*

of *Causation* (2020 [1827]; *EPEU* henceforth), is to refute Hume's "skeptical system," something she thought is dearly needed in order for our scientific practices to be justified. If *ERCE* is mostly concerned with explaining how certain principles needed both for practical and scientific life are justified, *EPEU* extends her previous work on causation, while at the same time explaining how we can build anything intellectually sound, starting from our (robust) knowledge of causation. As Boyle (2023, pp. 6–7) points out, there are other, shorter and even lesser-known works by Shepherd. In this entry, I will focus on the arguments developed in her two main books.

In the course of the refutation of Humean skepticism, *ERCE* and *EPEU* put forward an original philosophical system that explains how we have knowledge of an external world, of the self and other minds, and of a benevolent deity. In this entry, I will focus on the details of Shepherd's system that establish that we have knowledge of the existence of an external, mind-independent world. Moreover, I will explain that our knowledge of the nature of this world is limited in certain ways, but it is still quite robust.

Foundational Principles

According to Shepherd, at the foundation of our knowledge, in general, and of the external world, in particular, stand two principles: *the causation principle* and *the causal likeness principle*. Shepherd talks about these two principles primarily in *ERCE*, where she states:

1. That reason, not *fancy* and "custom," leads us to the knowledge, That everything which begins to exist must have a Cause. (*ERCE*, 2, 27; original emphasis)
2. That *reason* forces the mind to perceive, that *similar causes* must necessarily produce *similar effects*. (*ERCE*, 2, 27; original emphasis)

Although the knowledge of these two principles can be made explicit by the use of reason, we do not need reason to know and use them (despite *prima facie* evidence to the contrary). These principles are basic, foundational and, more importantly, self-evident and thus justified in other ways than by demonstration. According to Shepherd, we know these first principles, just like we know any first principles of any science, via intuition, not via reason. The distinction between intuition and reason is, of course, not entirely precise, both in Shepherd's writings and in

those of her predecessors. As Millican (2002, pp. 107–108) argues, "reason" was seen as doing double duty: it was thought to provide "us with insight – genuine understanding of things and *perception* of their nature, rather than mere thought about them. [In addition, one could emphasize] its function of providing reasons – the basis of rational inference and reasoning." The former aspect is what is usually considered to be the faculty of intuition and its perceptual character is its most exalted feature, from Descartes to Reid, and Shepherd. The latter aspect is what we usually think of as demonstration or reason, nowadays. Reasoning about such principles can help make their self-evidence clearer, in certain cases; their justification, and our being justified in believing them, does not come from this reasoning, however.² Several commentators argue that *the causal likeness principle* can be derived from *the causation principle* and this might make it seem that the latter is more foundational than the former (or even that the former is not foundational at all, in the relevant sense). LoLordo (2022, p. 11) explains that the two are epistemically on a par, "self-evident deliverances of [intuitive] reason" and that when Shepherd talks about deriving *the causal likeness principle* from *the causation principle*, "she is simply providing the sort of concurrent reason that might be helpful for someone who has fallen under the spell of Humeanism," believing that we cannot have knowledge of anything related to causation.

Our Knowledge of the External World

We do need to use reason to acquire knowledge of the external world, starting from these two principles. In *EPEU*, Shepherd explains how every neurotypical (and most neurodivergent, with the exception of what she calls "idiots," defined as people who do not have the capacity to generalize from individual instances to categories, by observing the relationships among instances, *EPEU*, Essay 7, 314–316) human being uses these two causal principles to build their knowledge of the external world. She argues that this type of knowledge comes about in the following way: neurotypical infant human beings come into this world equipped to use their latent reasoning powers to justify this knowledge. These reasoning powers are latent, in the sense that any inferences we might be drawing when we employ such general principles happen without us being aware. Shepherd contends that, as philosophers, we are able to make such unacknowledged processes explicit and the focus of our study. Her

project, in this respect, is a combination of empiricism and rationalism: she believes that our concepts are derived by interaction with the world, via sensory perception, while also thinking that it is by reason that we acquire knowledge of the external world. In this entry, I am following the way Markie and Folescu (2023) draw the distinction between rationalism and empiricism.

Shepherd proves that we have knowledge of an external, independent, and continually existing world. She argues that sensory perception is at the basis of this knowledge, in addition to the two foundational principles already introduced. The idea is that most everyone is able to notice that they have certain perceptions which are *as of* external objects. Our knowledge that these sensory perceptions are caused by external things is twofold: first, by the causation principle, everything, even our sensory perceptions, must be caused by something. Second, neither the sensations themselves nor the individuals having such sensations are plausible total causes of the sensory perceptions in question, although they are, of course, partial causes. Shepherd believes, not uncontroversially, that the mind stays the same, while the sensations change all the time. She does mention the possibility that the mind could generate its own sensations, in a manner reminiscent of Leibniz's pre-established harmony, but thinks this is wrong. (EPEU, p. 46 n). It is easy enough to see that our sensations change; but what makes her say that the mind remains the same throughout these changes? This has to do with one main tenet of her view, namely that mind or, better yet, mentality is a power (just like matter is). Without getting into too many details, the main idea is that Shepherd understands mind to be the general capacity for sensation; in this sense, it is not the right kind of thing that can undergo changes. Although it is true that powers can be actualized in different ways – and this is what happens with our mental general capacity when it goes through the apparent sensorial changes – the power itself remains the same. LoLordo (2022, pp. 16–17) explains, in detail, how Shepherd could respond to this question.

By further observation, we realize that we classify certain of our sensory perceptions as being like or unlike others, which means that we somehow understand that the sensations we have stand in certain relations to one another. Shepherd is aware that this is all based on psychological observation; her method is solid, however, in the sense that it is actually discovering necessary a posteriori truths. LoLordo (2022, p. 12) describes them thusly: “we need experience to learn [that neurotypical human beings engage with the external world in certain ways]. But once we know [what one instance of such engagement is like], we can

infer that [neurotypical human beings perceive the world in this way] simply by applying the causal likeness principle.” We are thus built in a certain way, such that we can pair the right causes to their observed effects by using this second law of causation. Bolton (2019, p. 141) goes into details regarding how we are able to pair the right causes to their observed effects. This should not make us think that we are infallible in our knowledge: we do make mistakes in trying to determine when two things that seem similar really are alike. Shepherd indicates that we can do a number of things to make sure that two objects that seem similar really are the same: we can, for instance, try to understand “the manner of their formation, [or apply] an exact experiment” (ERCE, pp. 127–129). Sometimes we will be successful, and sometimes we won't. This, however, only shows that our knowledge has certain limits; it does not lead to skepticism.

In this manner, we acquire knowledge of an external, mind-independent world. “External,” for Shepherd, just means that the objects that are presented to us, as such, are not objects of our consciousness (EPEU, p. 52/50); new sensations – which include “any consciousness whatsoever” (EPEU, p. 34) – must be caused by the mixture of the mind with something that isn't part of the mind. In addition, Shepherd believes that the “circumstances which go to prove that there must be truly outward causes, for particular sensations, prove them to be independent causes of those sensations” (EPEU, p. 62). This does not mean that the world itself is material; it just means that it exists independently of us.

There is one more piece that is needed in order to make our knowledge of the external world as robust as possible: we should be able to supply an explanation for its continuous existence, Shepherd believes. This piece of the puzzle strengthens the notion of the independence of the causes of our sensations. In addition, continuous existence explains the perceptual regularities we notice when we look upon the world. Shepherd writes that external objects have a “*readiness to appear . . . when called for* by the use of the organs of sense” (EPEU, p. 38). The explanation, here, can be *either* that an object, for instance a lake, disappears when I am not looking at it and reappears when I turn my eyes to it again. In this case, the lake would need to create itself anew whenever I look at it again. Or, better yet, the lake exists continuously, even when I'm not looking at it, and hence it is still there for me to see it, again and again. Since nothing can begin its own existence, the lake cannot disappear and reappear whenever I close and open my eyes, respectively. Thus, Shepherd argues, the lake (and any other external object) can only exist continuously.

The Limits of Our Knowledge of the External World

Our knowledge of the external world is limited in certain ways, according to Shepherd. She works in the same tradition of epistemic humility as Locke – whom she admires – and Reid – whom she criticizes. Just like these predecessors, Shepherd believes that no matter how astute our observations and how clear our explanations are, certain issues will always remain hidden. For Shepherd, what external objects are really like is not something that we can know. She maintains that a sensation does not resemble anything that is not like a sensation (EPEU, p. 112); so, we cannot argue that we know what external objects are like from resemblance, since they are not (like) sensations. Are we thus left with nothing more than knowledge of the general fact that something external, independent, and continuous exists?

No, we can and do know a bit more about the external world. What Shepherd wants us to understand is that this knowledge is very much dependent on us and on the kind of beings that we are.³ Although her view has a Kantian flavor, as Bolton (2019) and LoLordo (2020) point out, Shepherd does not engage with Kant's views, whom we have evidence that she read, in translation. We don't have access to what the external world is actually like, but we do have an inter-subjective understanding of what the external world looks like, *according to human beings*. The objects of knowledge, which are the sensations, perceptions, and ideas a human mind has are different from an idealist's objects of sense, in that they always connect with their actually existing external causes. Shepherd makes this clear when she writes that her view, in contrast to Berkeley, for instance, is: "*that an object perceived by the mind*" is a compound being, consisting of a certain collection of sensible qualities, "mixed with an *idea* the result of *reasoning*" of such qualities being formed by a "continually existing outward and independent set of as various and appropriate causes;" therefore that there must be "*an outward object*," existing as a "cause to excite the inward feeling" (EPEU, p. 112).

But if we can only access this combination of mind and external objects whenever we claim knowledge of the external world, how can we be certain that the way we perceive the world does indeed match the way the world is like? Shepherd's answer is mathematical in its precision: she believes that our sensations are "algebraic signs by which we can compute and know the proportions" in which the external objects, their causes, actually stand (EPEU, p. 137). The fact that there are certain relations in which our sensations stand with one another indicates, according to Shepherd, that "the external causes of our sensations

must exist among themselves in the same proportions as do the internal varieties of sensations, their effects" (EPEU, p. 129). So, while it is true that our sensations do not give us knowledge of what exactly their causes are like, they allow us to discover a lot about the relationships among these causes.

This, then, is what our knowledge of the world looks like: we know that there are certain external, independent, continuous objects that are causing us to have sensations of them. These objects stand in certain relationships to each other, just as our many sensations do. We can infer this by realizing that there is a one-to-one mapping not only of our sensations and the objects causing them, but also of the relations among our sensations and these external objects. We do not know what the qualities of these objects are, in themselves; we don't know what the objects are in themselves, either. We do know, however, what the external world looks like *according to human beings*, since it is *our sensations* mixed with the unperceived qualities of the world that give us the external objects we all feel and interact with.

Conclusion

Shepherd argues that we, as human beings, have knowledge of an external, independent, and continuous world. This knowledge is derived by using our reasoning powers – something that neurotypical and most neurodivergent people have, according to her – starting from certain foundational principles of causation, which we know intuitively. The knowledge we have does not illuminate the intrinsic, true nature of the external world, since we cannot step out of our sensory perceptions and "see" what the world is like, unadulterated by our sensations. However, based on the fact that we can understand that our sensations stand in certain relationships among themselves, we can truthfully infer that the same types of relationships exist among the unperceived external objects themselves. This, in turn, allows us to group and categorize what we take to be external objects in ways that very probably correspond to how they really exist in the external world. As such, Shepherd's philosophical system allows us to construct robust scientific practices to know anything that is possible, given our own limited natures.

See also: EMPIRICISM; LOCKE; RATIONALISM; REID.

Notes

- 1 It is an established practice, by now, for Shepherd to be added to the canon as an early modern philosopher,

- belonging to the Scottish school of philosophy, alongside Hume, Smith, Reid, and Stewart, as explained in Boyle (2017) and Boyle (2023).
- 2 I argue for this interpretation of Shepherd's understanding of the two causal principles in Folescu (2022). LoLordo (2022, pp. 7–8) thinks that this interpretation is evidence-based and has certain advantages, primarily that it helps with getting Shepherd's view out of a vicious circle, first discussed in Bolton (2010), Bolton (2019), and Fantl (2016). Landy (2023, p. 15) takes issue with this interpretation, instead attributing to Shepherd the view that "intuition, perception and observation, and by extension demonstration and reason, are not distinct." I argued that intuitive reasoning and demonstrative reasoning are distinct, as demonstrative reasoning relies on things already proved by the use of intuitive reasoning. However, intuition and demonstration are definitely two branches of the same tree, namely reason (or reasoning), according to Shepherd. Additionally, it must be stressed that the causal maxim doesn't require any kind of evidence: my original claim was that one can offer, *at most*, an indirect proof in support of the causation principle, but such proof isn't required (as Landy (2023, p. 15) seems to think that my interpretation implies).
 - 3 See Fasko (2022, p. 475) for a very interesting explanation of Shepherd's understanding of the *imago-dei*-thesis, according to which we are like God at least in that human beings and God "both have a mind and can accumulate knowledge via the sensations the mind gives rise to." This, in turn, would mean that the type of knowledge we can acquire is not of the worst kind.

Bibliography

- Bolton M. B.: "Causality and Causal Induction: The Necessitarian Theory of Lady Mary Shepherd," in *Causation and Modern Philosophy*, ed. K. Allen and T. Stoneham (Florence, KY: Routledge, 2010), 242–61.
- Bolton M. B.: "Lady Mary Shepherd and David Hume on Cause and Effect," in *Feminist History of Philosophy: The Recovery and Evaluation of Women's Philosophical Thought*, ed. E. O'Neill and M. P. Lascano (Switzerland: Springer Nature, 2019), 129–52.
- Boyle D.: "Expanding the Canon of Scottish Philosophy: The Case for Adding Lady Mary Shepherd," *Journal of Scottish Philosophy* 15(3) (2017), 275–93.
- Boyle D.: *Mary Shepherd: A Guide* (Oxford: Oxford University Press, 2023).
- Fantl J.: "Mary Shepherd on Causal Necessity," *Metaphysica* 17(1) (2016), 87–108.
- Fasko M.: "'God Said 'Let Us Make Man in Our Image After Our Likeness'" – Mary Shepherd, the *imago-dei*-thesis, and the Human Mind," *British Journal for the History of Philosophy* 31(3) (2022), 469–90.
- Folescu M.: "Mary Shepherd on the Role of Proofs in Our Knowledge of First Principles," *Noûs* 56 (2022), 473–93.
- Landy D.: "Shepherd on Reason," *British Journal for the History of Philosophy*. Online first (2023), 1–21.

- LoLordo A.: "Introduction to Mary Shepherd's *Essays on the Perception of an External Universe*," in *Essays on the Perception of an External Universe*, ed. A. LoLordo (Oxford: Oxford University Press, 2020), 1–24.
- LoLordo A.: *Mary Shepherd. Cambridge Elements on Women in the History of Philosophy* (Cambridge: Cambridge University Press, 2022).
- Markie P. and Folescu M.: "Rationalism vs. Empiricism," in *The Stanford Encyclopedia of Philosophy*, ed. E. N. Zalta and U. Nodelman (2023). <https://plato.stanford.edu/archives/spr2023/entries/rationalism-empiricism/>.
- Millican P.: "Hume's Sceptical Doubts Concerning Induction," in *Reading Hume on Human Understanding: Essays on the First Enquiry* chapter 4, ed. P. Millican (Oxford: Oxford University Press, 2002), 104–53.
- Shepherd M.: *An Essay Upon the Relation of Cause and Effect Controverting the Doctrine of Mr. Hume Concerning the Nature of that Relation; with Observations upon the Opinions of Dr. Brown and Mr. Lawrence Connected with the Same Subject* (London: T. Hookham, 1824). Abbreviated as ERCE.
- Shepherd M.: *Essays on the Perception of an External Universe and other Subjects Connected with the Doctrine of Causation*, ed. A. LoLordo (Oxford: Oxford University Press, 2020). (Original work published in 1827). Abbreviated as EPEU.

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Simplicity

Philosophers and scientists have often held that the simplicity or parsimony of a theory is one reason, all else being equal, to view it as true. This goes beyond the unproblematic idea that simpler theories are easier to work with and have greater aesthetic appeal.

One theory is more parsimonious than another when it postulates fewer entities, processes, changes or explanatory principles; the simplicity of a theory depends on more or less the same considerations, though it is not obvious that parsimony and simplicity come to the same thing. It is plausible to demand clarification of what makes one theory simpler or more parsimonious than another before the justification of these methodological maxims can be addressed.

If we set this descriptive problem to one side, the major normative problem is as follows: What reason is there to think that simplicity is a sign of truth? Why should we accept a simpler theory instead of its more complex rivals? Newton and Leibniz thought that the answer was to be found in a substantive fact about nature. In *Principia*, Newton laid down as his first Rule of Reasoning in Philosophy that "nature does nothing in vain . . . for Nature is pleased with simplicity and affects not the pomp of superfluous causes". Leibniz hypothesized that the actual world obeys simple laws because God's taste for simplicity influenced his decision about which world to actualize.