File opened: January 2, 2023

Chapter 5

Experience as Sense Perception

1. Introduction

This chapter provides a brief survey of the cognitive notion of experience as a counterpoint to the propositional notion to be developed in the chapters to come. The section to follow reviews this cognitive notion in the tradition of British empiricism. Section 3 recounts how that view persisted in the writings of empiricists in the early twentieth century. The final section recalls how empiricist writing has bifurcated into the literature in philosophy of science and a largely separate literature in epistemology. In so far as the modern literature in philosophy of science takes van Fraassen's constructive empiricism as definitive, it employs a cognitive notion of experience more extreme than that of the early logical positivists and logical empiricists. The notion of experience in modern empiricism is a direct descendent of the cognitive notion employed by the British empiricists.

2 Experience in British Empiricism

The modern tradition in empiricism takes as is founding figures those philosophers who later came to be know at the British Empiricists. One of the earliest is Thomas Hobbes. He commenced Chapter 1 of his *Leviathan* (1651) by declaring that (p. 3) "Thoughts of man …they are every one a *Representation* of Apparence, of some quality, or other Accident of a body without us…" He then develops an account of sense experience as caused by external bodies and arising in a familiar inventory of the types (p. 3, his emphasis):

> The cause of Sense, is the Externall Body, or Object, which presseth the organ proper to each Sense, either immediately, as in the Tast and Touch; or mediately, as in Seeing, Hearing, and Smelling…
>
> And this *seeming*, or fancy, is that which men call Sense; and consisteth, as to the Eye, in a *Light* or *Colour figured*; To the Eare, in a *Sound*; To the Nostrill, in an

Odour; To the Tongue and Palat, in a *Savour*, And to the rest of the body, in *Heat*, *Cold*, *Hardnesss*, *Softnesse*, and such other qualities, as we discern by *Feeling*.*

He subsequently (Ch. 3, p. 8)[1] recounted the activity of thinking as the connection of thoughts into "traynes," which formed "mental discourse" It was distinguished from "discourse in words," which would align roughly with relations among propositions.

Locke's (1689) *Essay* similarly distinguished words from thoughts. He wrote in the introductory Epistle to the Reader "I know there are not Words enough in any Language, to answer all the Variety of Ideas that enter into Men's Discourses and Reasonings." In so far as logical analysis requires propositions to be expressed in words, Locke's view is that the richness of mental life outstrips logical analysis.

Hume's famous analysis of causation found nothing more in the relation of cause and effect than our habit of mind of connecting the two. He wrote in his *Enquiry* (1777, p. 75, Hume's emphasis):

> ... after a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe it will exist. This connexion, therefore, which we *feel* in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connexion.

For Hume, cause and effect are to be understood within cognitive analysis. It is a mental process connecting cognitive states representing cause and effect. The duality of cognitive and propositional analysis enters Hume's analysis in the negative. Famously, he determined that the passage from the cognitive state of cause to that of effect cannot be vindicated by logical analysis. He wrote ((1739, p. 36):

> We have said that all arguments concerning existence are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all our experimental conclusions proceed upon the supposition that the future will be conformable to the past. To endeavour, therefore, the proof of this last supposition by probable arguments, or arguments regarding existence, must

[1] "By *Consequence* or TRAYNES of Thought, I understand that succession of one Thought to another, which is called (to distinguish it from Discourse in words) *Mental Discourse*."

be evidently going in a circle, and taking that for granted, which is the very point in question.

3. Early Twentieth-Century Scientific Empiricism

The early twentieth century saw a flourishing of epistemology that paid special attention to science. One might have expected that this new tradition would break with the heavily psychological notion of experience in favor of one less dependent on the ever-troubling vagaries of individual minds. Or perhaps if "science" meant "empirical science," we might hope that a psychological treatment of experience would draw on empirical investigations in psychology as opposed to introspection and armchair theorizing. Instead, we find little empirical advance over earlier treatments of experience.

In the British Cambridge tradition, G. E. Moore introduced a term in 1909-10 that came to be used heavily: "sense-data." It was quite explicitly introduced within reflections on psychology, as the title of his paper "The Subject-Matter of Psychology" indicates. He formulated it in terms that should surprise no modern reader. The formulation began (1909-10, p. 57):

> [My question] concerns those entities, which are often called "sensations" or "sense-presentations," but which I shall call, by preference, "sense-data." By sense-data I understand a class of entities of which we are very often directly conscious, and with many of which we are extremely familiar. They include the colours, of all sorts of different shades, which I actually see when I look about me; the sounds which I actually hear; the peculiar sort of entity of which I am directly conscious when I feel the pain of a toothache, and which I call "the pain"; and many others which I need not enumerate.

The term was picked up by Bertrand Russell and figures prominently in his 1915 *Our Knowledge of the External World.* We can see that he had become enmeshed in the psychological problems associated with this conception of experience. His 1914 "The Relation of Sense-data to Physics" posed this problem (p. 109):

> Thus if physics is to be verifiable we are faced with the following problem: Physics exhibits sense-data as functions of physical objects, but verification is only possible if physical objects can be exhibited as functions of sense-data. We have therefore to

> solve the equations giving sense-data in terms of physical objects, so as to make them instead give physical objects in terms of sense-data.

It might, I hope, now seem curious that a responsible empiricism for physics would require the solution of a problem that would tax greatly even our latest psychology and neuroscience.

The philosophers of logical positivism and logical empiricism also enmeshed their empiricism with problems of psychology. For them, sense perception arises at the level of the individual mind. We saw in Chapter 3 that the Vienna Circle manifesto proclaimed (Hahn, Neurath, Carnap, 1929, p. 309) "…there is knowledge only from experience, which rests on what is immediately given." That the "immediately given" refers to the sense perception of individuals is made clear by the discussion that follows. The meaning of statements and concepts is to be recovered reductively from "the given" through a hierarchical "constitutive system" whose lowest level lay in individual minds:

> … the lowest layers of the constitutive system contain concepts of the experience and qualities of the individual psyche; in the layer above are physical objects; from these are constituted other minds and lastly the objects of social science. …

This conception, sketched only programmatically in the manifesto, was given a fuller treatment in Carnap's influential *Aubau*. We saw in Chapter 3 that the lowest level in Carnap's *Aufbau* construction of the world was the "autopsychological," which pertains to content of our minds.

Reichenbach's *Experience and Prediction* also included discussion of individual sense perception. His §10 "Impressions and the problem of existence" allowed that there are "immediately given facts" of individual experience, which he designated as "impressions" or "sensations." There were accepted, only provisionally, within this section as "sentences capable of absolute verification." The problem of existence arises, Reichenbach continued, when our claims make the transition from our own subjective experience to the world beyond the confines our individual minds. Then we can doubt that there are objects that exist independently of our impressions. Reichenbach recognized that doubting their existence contradicts common sense. However, he went to some pains to argue that these doubts comprise a worthy problem in philosophy. He wrote (1938, p. 92):

> It is true that the question of existence, as it is usually expressed, needs a correction; and it is precisely the task of the philosopher to clarify the question first before an answer can be given. But it is not legitimate to cut short the question by sophistical

> remarks. It has been argued by certain philosophers that a man who doubts the existence of external things ought to have his forehead knocked against a wall to convince him of the reality of the wall. I do not think this is philosophical reasoning.

Reichenbach accepted that the existence of objects beyond our experience posed a worthy problem in philosophy. He did not allow that problem to have a controlling influence on his empiricism. He gave his solution to the problem of existence (p. 111): impressions provide *probabilistic* support for the independent existence of external things.

Carl Hempel, who worked under Reichenbach in Berlin, became one of the longest-lived members of group of philosophers associated with the Vienna Circle and Reichenbach's Berlin Circle. We can see how he sought to moderate the tension between the cognitive sense of experience and the propositional notion. His analyses privileged formal logical analysis, which is most congenial to a propositional notion of experience. Thus, he sought to admit cognitive experience into his system as intersubjectively affirmable statements. He wrote in his "The Theoretician's Dilemma" (1958, his emphasis, p.42):

> … empirical science aims for a system of publicly testable statements, and that, accordingly, the observational data whose correct prediction is the hallmark of a successful theory are at least thought of as couched in terms on whose applicability in a given situation different individuals can decide, with high agreement, by means of direct observation. Statements which purport to describe readings of measuring instruments, changes in color or odor accompanying a chemical reaction, utterances made, or other kinds of overt behavior shown by a given subject under specified observable conditions-these all illustrate the use of *intersubjectively applicable* observational terms.

4. Present Day Empiricism and Epistemology

Bas van Fraassen's constructive empiricism was the most influential formulation of scientific empiricism in the late twentieth century and perhaps even the decades following. In comparison to the moderating tendency in the writings of Reichenbach and Hempel, van Fraassen's constructive empiricism was a retrogression to an extreme skepticism. We are not to assign reality to anything beyond our human observations. His account is unapologetically

anthropocentric. What is observable is determined by our human sensory capacities; and the division between the observable and unobservable would migrate if those human sensor capacities were to change. This curious skepticism proved most provocative and became the focus of an extended debate in philosophy of science in which one philosopher after another expressed dismay. Further comment is not needed here since the controversy is recounted in Chapter 4.

The conceptions of empiricism in recent epistemology and in recent philosophy of science have started to drift apart. Within recent epistemology, empiricism remains largely as the doctrine modern philosophers attribute to the British empiricists and retains the psychological notion of experience. This modern literature is too expansive to admit a cogent survey here. However, we can recover enough of it to see this last point. For example, the entry on "Empiricism" in the 2010, second edition of the *Blackwell Companion to Epistemology* begins (Dancy et al., 2010, p. 326):

> **empiricism** An epistemological movement according to which: (1) nothing around us can be known to be real unless its existence is revealed in or inferable from information we gain directly in sense experience, or in introspection, or later recall; …

"Sense experience," we soon learn is a mental state that is not assured to be a veridical representation of reality:

> We might describe an experience as one of "that rotten egg smell" or of "seeming to smell a rotten egg". However, it is typically thought, what is not revealed directly is whether the odour is actually that of a rotten egg or ever has been, or whether it even inheres in or is produced by anything that exists independently of our experience.

It is tempting to presume that everyone in this literature understands the notion of experience to be just as Hobbes sketched: it is the world impressing ideas upon our minds through our sense organs. However, the great variety of different conceptions of experience in this literature precludes this generalization; or so we are assured by the account of experience given in the *Routledge Shorter Encyclopedia of Philosophy* (Alston, 2005):

> It is difficult to give an illuminating analysis of 'experience'. Let us say that it includes any mode of consciousness in which something seems to be presented to

> the subject, as contrasted with the mental activity of thinking about things. Experience, so understood, has a variety of modes sensory, aesthetic, moral, religious and so on – but empiricists usually concentrate on sense experience, the modes of consciousness that result from the stimulation of the five senses.

That the range of versions is great is shown by the existence of extreme recharacterizations of the notion of sense experience that deviate from Hobbes' model. We saw in Chapter 2 that Berkeley's idealism inverted the relationship of objects perceived and the perceiver's idea: the latter caused the existence of the former. Mach's sensationalism dispensed entirely with the conception of a world independent from our sensations: the sensations are the world.

References

Alston, William P. (2005) "Empiricism" p. 221 in *The Shorter Routledge Encyclopedia of Philosophy*, ed. E. Craig, London: Routledge.

Dancy, Jonathan; Sosa, Ernest; Steup, Matthias, eds. (2010) *A Companion to Epistemology*. 2nd. Ed. Wiley-Blackwell.

Hahn, Hans; Neurath, Otto; Carnap, Rudolf (1929) *Wissenschaftliche Weltauffassung* [by?] *der Wiener Kreis.* Wien: Artur Wolf Verlag; translated as *The scientific conception of the world: [by?] The Vienna Circle.* In M. Neurath & R. Cohen (Eds.), *Empiricism and Sociology*. Dordrecht: Reidel, 1973, pp. 298–318.

Hempel, Carl G. (1958). "The theoretician's dilemma: a study in the logic of theory construction." Herbert Feigl, Michale Scriven, Grover maxwell, eds. *Concepts, theories, and the mind-body problem. Minnesota studies in the philosophy of science*, Volume 2 (1958), Minneapolis: University of Minnesota Press. page 37-98.

Hobbes, Thomas (1651) *Leviathan: Or the Matter, Forme and Power of a Commonwealth Ecclestiasticall and Civil*. London: Andrew Crooke.

Hume, David (1739) *A Treatise of Human Nature*. L. A. Selby-Bigge, ed. Oxford: Clarendon, 1896.

Hume, David (1777) *An Enquiry concerning the Human Understanding, and an Enquiry concerning the Principles of Morals.* L. A. Selby-Bigge, ed. Oxford: Clarendon Press, 1894.

Locke, John (1689) *An Essay Concerning Human Understanding*. Vol. 1. 1st. ed, 1689; 12th ed. London: C. Hitch., 1791.

Moore, G. E. (1909-10) "The Subject-Matter of Psychology," *Proceedings of the Aristotelian Society*, **10**, pp. 36-62

Reichenbach, Hans (1938) *Experience and Prediction*. Chicago: University of Chicago Press. First Phoenix edition, 1961.

Russell, Bertrand (1914) "The Relation of Sense-data to Physics" *Scientia* **16**, pp. 1-27; reprinted in *Mysticism and Logic*. London: George Allen & Unwin, 1917, pp. 108-31.

Russell, Bertrand (1915) *Our Knowledge of the External World.* Chicago: Open Court.