acquaintance with these objects, see Bertrand Russell, *The Problems of Philosophy* (London: Williams and Norgate, 1912), Ch. 5. Criticism of the notion of knowledge by acquaintance, which Russell develops in *The Problems of Philosophy*, is found in H. L. A. Hart, "Is There Knowledge by Acquaintance?" in *PAS*, Supp. 23 (1949): 69–90; also see the essays by G. E. Hughes and J. N. Findlay on the same topic in the same volume, 91–128, and Wilfrid Sellars, *Science, Perception, and Reality* (London, 1963), pp. 127–196. Additional criticisms of the view that sensing is a form of knowing occur in H. A. Prichard, "The Sense-Datum Fallacy," in *PAS*, Supp. 17 (1938): 1–18; Wilfrid Sellars, "Physical Realism," in *Philosophy and Phenomenological Research* 15 (1954–1955): 13–32; and Gilbert Ryle, *The Concept of Mind* (London: Hutchinson, 1949), Ch. 7.

The notion of unconscious inference is presented in Bertrand Russell, *The Problems of Philosophy*, Ch. 13, and a defense of this notion in Gilbert Harman, "How Belief Is Based on Inference," in *Journal of Philosophy* 61 (1964): 353–359. For the criteria of direct sensory awareness, see Bertrand Russell, "On Verification," in *PAS* 38 (1937–1938): 1–20. Russell's *Analysis of Mind* (London: Macmillan, 1921), Ch. 12, states the view that beliefs are introspectable mental occurrences. For criticism of this view, see Gilbert Ryle, *The Concept of Mind*, Chs. 2 and 5. The view that we can introspectively differentiate knowledge from mere belief is found in H. A. Prichard, *Knowledge and Perception* (Oxford, 1950), p. 88. Prichard is criticized on this point by Norman Malcolm in his *Knowledge and Certainty* (Englewood Cliffs, NJ: Prentice-Hall, 1963), p. 58.

For the contemporary reaction to Cartesianism, see Gilbert Ryle, *The Concept of Mind*, and Ludwig Wittgenstein, *Philosophical Investigations* (Oxford: Blackwell, 1953). An earlier reaction against the Cartesian account of intuitive knowledge is C. S. Peirce's *Collected Papers* (Cambridge, MA: Harvard University Press, 1933–1958), Vol. V, pp. 135–189. For the linguistic account of intuitive knowledge of the truth of propositions, see Wilfrid Sellars, *Science, Perception, and Reality*, pp. 164–170. The view that intuitive knowledge of a priori truths is founded upon a nonpropositional knowledge of universals or essences is found in Bertrand Russell, *Problems of Philosophy*, Ch. 10; Brand Blanshard, *Reason and Analysis* (La Salle, IL: Open Court, 1962), Chs. 6, 9, 10; and Edmund Husserl, *Ideas* (New York: Macmillan, 1931). For critical discussion of this view and of the linguistic account of a priori knowledge, see Arthur Pap, *Semantics and Necessary Truth* (New Haven, CT: Yale University Press, 1958).

OTHER RECOMMENDED TITLES

BonJour, Laurence. *In Defense of Pure Reason*. New York: Cambridge University Press, 1998.

Casullo, Albert. *A Priori Justification*. New York: Oxford University Press, 2003.

DePaul, Michael, and William Ramsey, eds. *Proceedings of the Notre Dame Intuition Conference*. Totowa, NJ: Rowman & Littlefield, 1997.

Weatherson, Brian. "What Good Are Counterexamples?" *Philosophical Studies* 115 (2003): 1–31.

Richard Rorty (1967)
Bibliography updated by Benjamin Fiedor (2005)

INTUITION [ADDENDUM]

In the history of philosophy "intuition" has been used primarily as a term for an intellectual, or rational, episode intimately tied to a priori knowledge. The term has sometimes been used in a broader way to include certain sensory episodes (appearances) and certain introspective episodes (e.g., inner awareness of the passage of time). In contemporary philosophy this broader use has fallen out of fashion (except among Kantians), and the narrower use prevails.

An intuition in this sense is simply a certain kind of seeming: For one to have an intuition that *P* is just for it to seem to one that *P*. This kind of seeming is intellectual, not sensory or introspective, in the following sense: Typically, if it is possible for someone to have the intuition that *P*, then it is possible for someone to have the intuition that *P* in the absence of any particular sensory or introspective experiences relevant to the truth or falsity of the proposition that *P*. For this reason, intuitions are counted as "data of reason" not "data of experience." In this connection, intuitions are sometimes called "a priori intuitions" or "rational intuitions."

Intuition must be distinguished from belief: Belief is not a seeming; intuition is. For example, I have an intuition—it still seems to me—that the naive set-abstraction axiom from set theory is true despite the fact that I do not believe that it is true (because I know of the set-theoretical paradoxes). There is a rather similar phenomenon in sense perception. In the Müller-Lyer illusion, it still seems to me that one of the two arrows is longer than the other, despite the fact that I do not believe that one of the two arrows is longer (because I have measured them). In each case, the seeming persists in spite of the countervailing belief. Similar considerations show that intuitions must likewise be distinguished from guesses, hunches, and common sense.

Many philosophers identify intuitions with linguistic intuitions. But this is mistaken if by "linguistic intuition" they mean intuitions about words, for most of our intuitions simply do not have any linguistic content. Other philosophers think of intuitions as conceptual intuitions. Nothing is wrong with this if "conceptual intuition" is understood broadly enough. But there is a common construal—originating in David Hume's notion of relations of ideas and popular with logical positivists—according to which conceptual intuitions are all analytic. The problem is that countless intuitions are not analytic on the traditional construal of that term (convertibility into a logical truth by substitution of synonyms). For example, the intu-

ition that, if region r_1 is part of region r_2 and r_2 is part of region r_3, then r_1 is part of r_3. Possibility intuitions are also not analytic (e.g., in epistemology the intuition that the Gettier situations are possible). In response, some philosophers have countered that possibility intuitions are just intuitions of consistency, but this view is mistaken on several counts. For example, it is consistent to hold that region r_1 is part of r_2, r_2 is part of r_3, but that r_1 is not part of r_3, despite the fact that such a thing is not possible.

Standard practice in logic, mathematics, linguistics, and philosophy is to use intuitions as evidence. (For example, in epistemology Roderick Chisholm uses intuitions to show that traditional phenomenalism is mistaken, and Edmund Gettier uses intuitions to show that the traditional identification of knowledge with justified true belief is mistaken. In metaphysics Saul Kripke uses intuitions to show that, if water is H_2O, then it is necessary that water is H_2O. In philosophy of mind, Hilary Putnam uses intuitions to show that logical behaviorism is mistaken, and so forth.) A great many philosophers believe that use of intuitions is essential to the indicated disciplines.

Radical empiricists, who doubt that intuitions have evidential weight, usually defend their view by pointing to the fact that intuitions can be unreliable. They cite, for example, the fact that our intuitions about naive set theory are in conflict with our intuitions about classical logic. But this shows only that traditional infallibilism is mistaken, not that intuitions lack evidential weight. After all, sense perceptions have evidential weight even though they can be unreliable. (Incidentally, although various cognitive psychologists—Peter C. Wason, Philip Johnson-Laird, Eleanor Rosch, Richard E. Nisbett, D. Kahneman, A. Tversky, and others—have examined human rationality with a critical eye, their studies have not attempted to test empirically the reliability of intuitions, and it will be quite difficult to do so.)

Why should intuitions have evidential weight? A plausible answer is that intuitions have an appropriate tie to the truth: As a noncontingent fact, if a subject's cognitive conditions (intelligence, attentiveness, and so forth) were suitably close to ideal, the subject's intuitions would be sufficiently reliable to permit the subject to arrive at a mostly true theory regarding the subject matter of those intuitions. This is a consequence of an analysis of what it is to possess concepts determinately: A necessary and sufficient condition for determinately possessing one's concepts is that one's intuitions have this kind of tie to the truth; if the subject's intuitions lacked this sort of tie to the truth, that would only show that the subject did not determinately possess those concepts (or that the sub-

ject's cognitive conditions were not sufficiently good). In contemporary philosophy, many have come to accept (some form of) this moderate rationalist theory of intuitions and concept possession.

See also A Priori and A Posteriori; Belief; Chisholm, Roderick; Empiricism; Hume, David; Kripke, Saul; Philosophy of Mind; Putnam, Hilary; Truth.

Bibliography
Bealer, G. "A Priori Knowledge and the Scope of Philosophy." *Philosophical Studies* (1966), with replies by E. Sosa and W. Lycan in the same volume.
BonJour, L. "Against Naturalized Epistemology." *Midwest Studies in Philosophy* 19 (1994).
Kahneman, D., and A. Tversky. "On the Study of Statistical Intuitions." In *Judgment under Uncertainty*, edited by D. Kahneman, P. Slovic, and A. Tversky. Cambridge, U.K.: Cambridge University Press, 1982.

George Bealer (1996)

INTUITION [ADDENDUM 2]

An intuition is a noninferential awareness of something: a concept, a proposition, space or time, a physical object, our own existence, or God. While sometimes people talk of sensory intuitions of perceptual objects, by which they mean an immediate awareness of how they appear, this use of "intuition" is becoming more rare. Nowadays philosophers use the term primarily to mean a nonsensory and nonintrospective awareness of a proposition or concept. Some philosophers hold that an intuition must be of a proposition that seems necessarily, or possibly, true. But people who lack the concepts of necessity and possibility are able to have something very like what philosophers call intuitions. So a more plausible view is that a person has an intuition that P if and only if P seems true, or possibly or necessarily true, where that appearance is intellectual—that is, based on the understanding, not on perception or introspection. George Bealer thinks that intuitions are not beliefs because we can disbelieve something that still appears true. Perhaps some argument has convinced us that in a lottery with seventy-six million tickets we know before the drawing that we hold a losing ticket if the ticket is in fact a loser, but it may still seem that at that time we do not know that it will lose.

Thus, by "intuition" most philosophers mean a rational intuition—or a rational insight—that is based solely on understanding the proposition that is its object. The intu-