

could not come from nothing. He even contemplates the possibility of this world being only one of a number of worlds, each existing along with the others.

Crescas is unusual also in accepting the existence of the infinite, a concept that many Aristotelians think suggests an absurdity, and the discovery of which is taken by Aristotelians to indicate an impossibility in the argument. The concept of infinity allows Crescas to envisage an infinite space in which a vast variety of worlds could exist.

Still, the qualms about infinity that his predecessors held had allowed them to argue for the necessity of a first cause, since otherwise the series of causes and effects would continue infinitely. Crescas's attack on Aristotle led him to propose a range of ideas and arguments that were to play a major part in the acceptance of new ways of thinking not only in philosophy but also in science.

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CRITERIOLOGY

"Science of criteria" or "criteriology" is a term, originally neoscholastic, for a theory of knowledge in which judgments are warranted or justified simply by conforming to certain criteria for correct judgment. These criteria are general principles that specify what sorts of considerations ultimately confer warrant on some judgments and that tend (tacitly) to guide self-reflective persons in checking and correcting their judgments. The epistemologist's task is to formulate these principles by reflecting on the considerations present and absent in various judgments we intuitively think of as warranted and unwarranted.

Different criteria may deal with different subject matters, degrees, and sources of warrant (e.g., in perception, memory, inference). Ultimately, there must be warranting considerations other than inferability from other warranted judgments. These must be internally accessible through introspection or reflection without relying on further warranted judgments. They will not be considerations such as whether nature designed us to be reliable judges but ones such as whether we ostensibly see or recall something or intuitively grasp or clearly and distinctly conceive something.

Many epistemologists argue that critical considerations need not guarantee truth or confer certainty, and whatever warrant they confer may be defeated. For instance, if one ostensibly sees something red, one is *prima facie* or defeasibly warranted in judging that one actually sees something red. The judgment might not be warranted when, despite ostensibly seeing something red, one has evidence that the illumination makes everything look red. We need additional principles specifying what considerations defeat warrant.

However, if criterial considerations do not guarantee truth, what makes a set of principles genuinely warranting? Putative common contingent features such as their overall reliability rest warrant on something beyond mere conformity to these principles and may allow for alternative principles. Criteriologists (e.g., Pollock 1974, 1986) often appeal to controversial, nonscholastic, views about concepts and truth influenced by Ludwig Wittgenstein. Criteria are internalized norms (rules) about when to make and correct judgments ascribing a concept. They characterize what persons must, in order to have a particular concept, tacitly know how to do in their judging and reasoning and be tacitly guided by. Criteria individuate our concepts and thus are necessarily correct. Although warranted judgments need not be true, we have no idea of their truth completely divorced from what undefeated criterial considerations warrant. Critics often respond: Surely this norm conformity must have a purpose beyond itself, like accurately representing the world?

See also Epistemology; Wittgenstein, Ludwig Josef Johann.

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CRITICAL PHILOSOPHY

See *Kant, Immanuel; Neo-Kantiansim*

CRITICAL REALISM

Critical Realism is the title of a book by Roy W. Sellars published in 1916. The name was adopted by a group of philosophers who shared many of his views on the theory of knowledge. *Essays in Critical Realism: A Cooperative Study of the Problem of Knowledge* by Durant Drake, A. O. Lovejoy, J. B. Pratt, A. K. Rogers, George Santayana, C. A. Strong, and Sellars was published in 1920.

BACKGROUND

Much of the epistemological debate since the seventeenth century stems from the matter-mind dualism of René Descartes, who argued that what we know first and most surely is not a physical world but the existence of our own minds, and of John Locke, who argued that we are immediately acquainted only with our own ideas. Starting from these assumptions, how can one know a physical world external to the mind, if, indeed, such a world exists at all? Critical Realism is a chapter in this long debate. Some philosophers, finding it impossible to bridge the gap from a mental world to a material reality that transcends it, turned to some form of subjectivism or idealism; at the beginning of the twentieth century the dominant philosophy in Britain was the Neo-Hegelian idealism of F. H. Bradley and Bernard Bosanquet, and in America it was the voluntarism of Josiah Royce, the personalism of George H. Howison and Borden Parker Bowne, or the pragmatism of William James. But idealism, uncongenial to common sense and to ordinary interpretations of

physical science, was followed by a reaction. Scientific knowledge seemed to support philosophical realism rather than idealism.

Shortly before the emergence of Critical Realism a group of philosophers, calling their view the New Realism, argued that even if it is true that whenever something is being perceived, it is an object for a mind, it does not follow that it has no existence except by being perceived. Hence, the idealist commits a fallacy if he concludes that the whole world is nothing but ideas from the truism that when something is known, it is an object for a mind. The American new realists, then—and here they could claim the support of such important British thinkers as G. E. Moore and Bertrand Russell—maintained that elements in perception can at the same time be elements in the physical world. Things do not cause ideas in us, as Locke would have said, so that we first know only ideas and then try to infer from them the nature of the real world which is never directly perceived. Rather, knowing is more akin to selecting, or throwing a light upon, aspects or parts of a world already there to be selected or illuminated by the light of consciousness.

THE CRITICAL REALIST POSITION

The critical realist agrees with the new realist in holding that there is an objective physical world; their disagreement is chiefly on the question of the relation of the datum of knowledge to its object. Physical things, or parts of them, cannot be directly presented to us in perception. Considering the great variety of what is perceived—the double image, the partially submerged bent stick, the toe that is felt after the leg has been amputated—under various conditions by both normal persons and those who are, for example, inebriated or color-blind, are we to say that the real world actually contains all that is disclosed in all these circumstances? And is there no such thing as error? The trouble is that the "direct" realist, by identifying the immediate data of knowledge with elements of the physical world, is trying to account for the universe with an insufficient number of categories or kinds of entities. The knower, whether he is conceived as an organism and a part of nature or as a mind, does not "take in" the physical world. According to Santayana, the datum is an essence, a Platonic universal, which has an identity by being just the character it is, whether it characterizes one or many things in nature or characterizes no existent whatsoever. The datum, the immediately intuited evidence of reality, cannot be numerically identical with any part of that reality.