

most important of which are the two-volume *Theory of Communicative Action* (1981, social theory) and *Between Facts and Norms* (1992, legal and political theory). Discourse theory is rooted in an intersubjective view of language and selfhood and a dialogical reformulation of Kantian ethics with strong commitment to the cognitive developmental psychology of Jean PIAGET (1896–1980) and Lawrence Kohlberg (1927–1987).

Newer Streams in Critical Theory. Dissatisfaction among some critical theorists with various aspects of Habermas's work have ensured that the tradition continues into a third generation, which has crystallized around Axel Honneth, whose pathbreaking social theory of recognition seeks to return critical theory to a more Hegelian, anthropological, and psychoanalytical grounding. Honneth became director of the Institute for Social Research in Frankfurt in 2001.

Another stream of critical theory oriented toward the normative problems of transnational and global politics can be discerned. Here the work of Rainer Forst, centered around the notions of a right to justification, orders of justification, and justificatory power, is most prominent. Leaving aside the clear oversimplification of the idea of discrete "generations," critical theory is a house with many rooms, and critical theorists do not hesitate to make use of resources from any of their forebears and from any discipline that proves useful for the task of social theorizing with an emancipatory intent.

SEE ALSO CLASS STRUGGLE; SOCIAL SCIENCE, PHILOSOPHY OF; SOCIAL THOUGHT, CATHOLIC.

BIBLIOGRAPHY

- Adorno, Theodor, and Max Horkheimer. *Dialectic of Enlightenment*. Translated by John Cumming. New York: Continuum, 1972.
- Forst, Rainer. *The Right to Justification: Elements of a Constructivist Theory of Justice*. Translated by Jeffrey Flynn. New York: Columbia University Press, 2012.
- Habermas, Jürgen. *The Theory of Communicative Action*. 2 vols. Translated by Thomas McCarthy. Boston: Beacon, 1984–1987.
- Habermas, Jürgen. *Between Facts and Norms: Contributions to a Discourse Theory of Law and Democracy*. Translated by William Rehg. Cambridge, MA: MIT Press, 1996.
- Honneth, Axel. *The Struggle for Recognition: The Moral Grammar of Social Conflicts*. Translated by Joel Anderson. Cambridge, UK: Polity, 1995.
- Horkheimer, Max. "Traditional and Critical Theory" (1937). In *Critical Theory: Selected Essays*. Translated by Matthew J. O'Connell et al., 188–243. New York: Herder and Herder, 1972.
- Wiggershaus, Rolf. *The Frankfurt School: Its History, Theories,*

and Political Significance. Translated by Michael Robertson. Cambridge, MA: MIT Press, 1994.

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CRITICAL THINKING

Critical thinking is (1) a set of intellectual virtues, practices, and skills related to the analysis and evaluation of claims and arguments; and (2) the systematic study of such.

Analyzing for Clarity. The analytic aspect of critical thinking aims at clarity and is a necessary prerequisite to evaluation. Before one can rightly evaluate a claim, one has to get clear on what the claim is. This requires close attention to diction, grammar, and context, as well as application of standard interpretive principles such as the principle of charity. Likewise, before one can properly evaluate an argument, one has to get clear on how it is structured, that is, on how its constituent claims relate to one another. This also requires close attention to language and context, with particular attention to premise and conclusion indicators, words or phrases that signal that the following clause is intended either as a reason for another claim (e.g., "because," "since," "for the reason that," etc.) or as a claim for which reasons are being offered (e.g., "therefore," "consequently," "hence," etc.). A common way of facilitating the analysis of claims and arguments is to translate them into an appropriate symbolic notion (e.g., first-order predicate logic). Care should be taken, however, because some of the expressive power of natural language is lost in the conversion to symbolic notation, and this can subtly alter the semantics.

Evaluating Claims. The evaluative aspect of critical thinking requires separate treatment for claims and arguments. With respect to claims, the primary evaluative concepts are truth and acceptability. The former is determined by whether the world is as a claim says that it is, whereas the latter is person-relative and is determined by how well a claim coheres with a person's set of beliefs. A claim is acceptable to person *S* just in case *S* would regard it as more likely true than not. The importance of truth consists in the fact that only true beliefs provide a reliable basis for decision-making and action. Hence, avoiding false beliefs and securing true ones (or at least ones of sufficient VERISIMILITUDE to be reliable in the contexts in which one might act upon them) are fundamental goals of critical thinking. Sifting

truth from ERROR, however, requires evidence. Various types of evidence (EMPIRICAL, intuitive, and testimonial) may be distinguished, but evidence in general is simply anything that sheds light on the truth or FALSITY of a claim.

As for acceptability, its importance lies in the fact that making claims (and giving arguments) is a social activity. It is a reminder to keep the audience in mind. Thus, if someone makes a claim, he thereby acquires a burden of PROOF. But if he knows that his audience will find the claim highly acceptable, then he need not defend it in that context for, in the audience's view, the burden of proof has already been met elsewhere. But if he suspects the audience will be skeptical, and if he does not want them to dismiss what he has to say, then he had better defend the claim with sufficient evidence and argument to render it acceptable to them.

Evaluating Arguments. Turning to arguments, here the primary evaluative concepts are validity, soundness, and cogency. An argument consists of a set of one or more claims (the premises) offered as reasons for believing another claim (the conclusion). Its fundamental purpose is to persuade someone that the conclusion is true by supplying evidence in the form of the premises. The component claims of an argument can be evaluated separately for truth and acceptability, but arguments emphasize logical connections between claims, and these require separate evaluation. The logical strength of a premise–conclusion relation is the degree to which the truth of the premise would render likely the truth of the conclusion. The maximal degree of logical strength is validity. An argument is said to be valid just in case there is no logically coherent scenario in which all of the premises are true and the conclusion is false. An argument is said to be sound just in case it is both valid and all the premises are in fact true. And it is said to be cogent just in case it is an apt vehicle for rational persuasion, that is, the premises are highly acceptable to the intended audience, the premises are clearly relevant to the conclusion, and the premises support the conclusion with a high degree of logical strength.

Besides defining the upper limit of logical strength, the concept of validity is important in two additional respects. First, validity (along with relevance) is useful for identifying unstated assumptions. Frequently, arguments are stated in a manner that leaves a clear logical gap between premises and conclusion. This may occur because of carelessness on the part of the arguer, or it may be deliberate, either because the arguer believes the audience can easily fill in the gap, or, less charitably, because the arguer is trying to hide a controversial premise. In any case, one can fill in such gaps by asking what minimal additional information would have to be added to the stated premises to make the argument valid

and to make the stated premises relevant to the conclusion. Second, validity allows one to distinguish between deductive and inductive arguments, which generally require separate treatment. Basically, deductive arguments purport to be valid, whereas inductive arguments do not. Hence, although challenging the validity of a deductive argument is always a fair type of criticism, charges of invalidity are beside the point when it comes to inductive arguments. The key difference is that deductive arguments aim simply to make explicit what is implicit in the premises, whereas inductive arguments aim to extend knowledge beyond what is given in the premises. The latter are, therefore, inherently risky and inconclusive. Inductive arguments come in several varieties, including categorical and statistical generalizations from samples to populations, arguments by ANALOGY, and arguments to the best EXPLANATION. Although the validity or invalidity of a deductive argument can usually be assessed by attending solely to its logical form, evaluating the cogency of an inductive argument typically requires close attention to content.

Most works on critical thinking include a lengthy discussion of argumentative fallacies. These are methods of argumentation that rationally should not be persuasive, even if sometimes people find them so. A formal FALLACY occurs when a deductive argument has a demonstrably invalid logical form (e.g., affirming the consequent). An informal fallacy occurs when an argument fails to be cogent in some other way, such as when the premises are not acceptable, are not relevant to the conclusion, or at best only weakly support the conclusion.

SEE ALSO ARGUMENTATION; INTELLECTUAL VIRTUES.

BIBLIOGRAPHY

- Govier, Trudy. *A Practical Study of Argument*. 7th ed. Belmont, CA: Wadsworth, 2010.
- Hurley, Patrick J. *A Concise Introduction to Logic*. 11th ed. Boston: Wadsworth, 2012.
- Walton, Douglas N. *Informal Logic: A Pragmatic Approach*. 2nd ed. Cambridge: Cambridge University Press, 2008.
- Weston, Anthony. *A Rulebook for Arguments*. 4th ed. Indianapolis, IN: Hackett, 2009.

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CULTURAL RELATIVISM

The term *relativism* derives from the term *relative*, which is in opposition to the term *absolute*. Cultural relativism