CONSTRUCTIVISM (PHILOSOPHY OF MIND)

Synonyms

(Epistemological) antirealism/ idealism

Description

The collective term 'constructivism' (from Lat. 'construere': to construct) covers all theories of cognition, which particularly emphasise the active contribution of the subject in the process of cognicising. Thus, 'constructivism' is used to group together various epistemological views in philosophy, psychology, sociology, theory of sciences etc., which maintain that cognition or knowledge is not, or not so much, passively received, but actively built up and constructed.

Beyond this general characterization, several basic types of constructivism can be distinguished, namely, *Radical constructivism, moderate constructivism, global and regional constructivism and cultural and naturalistic constructivism.*

Radical and Moderate Constructivism

Radical constructivist views reject cognition as being sufficiently determined by the external world, independent of the mind, so that warranted or justified beliefs about the world can be achieved. However, radical constructivists usually do not deny the existence of an external world like ontological antirealists do. Rather they deny that anything definitive can be known about it, which is a view more in line with an epistemological antirealist view. Moderate constructivist views acknowledge the active role of construction in our belief-building processes, but also hold on to the possibility of cognitive relevant feedback from reality, in terms of falsification or validation. According to this view, the accurate recognition and description of objective facts and contexts is, at least in principle, possible, even though human knowledge remains conjectural and provisional.

Global and Regional Constructivism

In addition, global and regional types of constructivism can be discerned. Many philosophers or scientists are not generally constructivists, but hold constructivist views with regard to particular regions of reality or subject matters under discussion, such

as, for instance, moral or aesthetic properties, mathematical objects, natural kinds or species and, in principle, anything.

Cultural and Naturalistic Constructivism

Finally, there are cultural and naturalistic versions of constructivism. While cultural variants of constructivism maintain that cognition is mainly a socio-cultural product (see the note to T. S. Kuhn below), naturalistic variants put emphasis on the evolutionary, biological or neurological conditions and foundations of human cognition.

Brief History

Constructivism has a long history, which can be traced back to medieval *nominalism* and ancient *scepticism*. However, constructivist views have become more influential only since the 17th and 18th Century, when British empiricism, and subsequently German idealism, emerged. Particularly D. Hume and I. Kant are to be mentioned as influential precursors to and pioneers of contemporary constructivism. According to Hume, all 'ideas' held in the human mind, of any level of complexity, can be derived from simple 'impressions', i.e. mental reconstructions of sense perceptions, which we interconnect in an habitual way. Moreover, since, according to Hume, all we have are perceptions and inferences do not lead beyond perceptions, but just to these again, we cannot know whether there exists a world independent of our perceptions and what it would be like. Kant argued that the schemes of ordering which constitute human cognition (i.e. 'categories' such as substance, relation, causality etc. and the 'a priori forms of intuition', i.e. time and space) are located in the cognicising subject rather than in the external world. For that reason, empirical knowledge does not reflect the world as it is in itself, but only the way it appears to us, i.e. the 'world of appearances'.

In the recent history of philosophy, attempts made to give a new foundation to mathematics, in view of the foundational crisis of mathematics, have been labelled as 'constructivism'. For intuitionists (L. E. Brouwer, A. Heyting) and subsequent constructivists (P. Lorenzen, K. Lorenz), mathematical objects are only considered to exist if it is possible to specify an effective procedure for constructing them. In contrast, indirect proofs of existence are rejected as being inadequate.

In the second half of the 20th Century, within epistemology and the theory of science, two schools have emerged which are explicitly referred to as 'constructivism': Erlanger Constructivism and Radical Constructivism.

Erlanger Constructivism

The Erlanger school of Constructivism pursues a programme of developing a 'reasonable language'—especially a language of science—in a methodical and non-circular way. This concept was introduced by W. Kamlah and P. Lorenzen with their formative work 'Logische Propädeutik' (1967) and later continued by K. Lorenz, J. Mittelstraß and others. Some representatives confine themselves to (re-)constructing the language of science, while regarding our everyday language and lifeworld ('Lebenswelt') as being an inescapable starting point or 'prescientific a priori'. Others, however, hold our daily practice of language to be both capable of and in need of justification.

Radical Constructivism

Radical Constructivism can be characterized as a global and naturalistic version of constructivism. Its most well known representatives (H. Maturana, F. Varela, H. v. Förster, E. v. Glasersfeld) reject *direct realistic* as well as *representational* views of cognition and support that stance with philosophical arguments as well as with evolutionary, neuroscientific and biological findings. The resulting antirealistic attitude leads radical constructivists to a merely *instrumentalist* view of cognicising, according to which our everyday as well as our scientific cognition does not reveal what the external world is like (so that we would 'know that'), but what is *viable,* i.e. 'fitting' to our experience, and benefits our survival in some way (so that we have 'know-how'). Representatives of Radical Constructivism within neurosciences (G. Roth et al.) do not regard reality as a construction of the 'I', but rather the individual 'I' as an evolutionary useful, even though illusionary, construction of the brain.

Discussion and Impact of Constructivism

While Radical Constructivism has numerous followers among biologists, psychologists, sociologists and educationalists it has few supporters among philosophers and is regarded as controversial by them. Radical Constructivism requires a consequent departure from any kind of (e.g. critical or scientific) realism, which we usually take

for granted in our everyday life and often also in the practice of science. This departure, however, is not easy to maintain, since radical constructivists cannot easily do without statements about how things really are, for instance, when they argue for an antirealistic view of cognition against the realists. Hence, they should not rely on findings of the empirical sciences, for if these findings should give support to Radical Constructivism, they would require a realistic interpretation. Apart from that, it is not easy to see which kind of philosophical arguments in fact support Radical Constructivism successfully. Thus, constructivist views of cognition, whether radical or moderate, global or regional, cultural or naturalistic, seem to be primarily motivated by an alleged lack of plausibility on the part of realistic alternatives. This eventually leads to the question of whether constructivist views of cognition can offer an overall more plausible explanation of our experience than alternative theories. This issue, however, may vary drastically across different subject areas and remains an ongoing discussion.

Constructivist considerations play an important role in the philosophy of religion and in religious studies. The formation and development of religious traditions owe themselves to complex processes of socio-cultural construction (as well as criticism), which are explored and re-constructed by the history, psychology and sociology of religion and other sub-disciplines of religious studies. In principle, constructivist considerations may serve to criticize as well as to justify religious beliefs and practices. In the context of functional explanations, for instance, religious beliefs and practices were seen to be a product of socio-economic conditions (K. Marx), infantile illusions or projections (S. Freud) or society-stabilizing mechanisms (E. Durkheim). However, defenders of religion can also rely on constructivist considerations. When it comes to the problem of diverging or competing truth claims among different religious traditions, to name only one example, religious pluralists (J. Hick, P. Knitter et al.) argue that religious beliefs and concepts can be understood in terms of an experience of a transcendent and ultimate reality, in itself incomprehensible, which is perceived and conceptualized differently within various religious traditions. However, the above mentioned explanations, as well as many other explanations of religious phenomena, often have very little support from empirical data.

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Representationalism is the view that one´s perceptions are ideas or sense data that in some way represent external objects.

Direct realism is the view that physical objects are in fact directly or immediately perceived without any sort of justificatory inference from sensory experience.

Viable is a belief or theory which 'is fitting' to our common experience. According to radical constructivists different beliefs or theory can be equally fitting to our experience.

Instrumentalism is the view that science is a useful instrument in understanding our experiences; it shifts the basis of evaluation away from whether our hypotheses and

theories accurately describe any objective reality towards an antirealistic analysis of whether the results and evaluation fit with the observed phenomena.

Nominalism is the doctrine that general terms, so called universals, do not represent objectively existing entities or facts, but are only names applied to individual physical particulars. Alone these exist objectively.

Ancient skepticism designates the school of Pyrrho (c. 365 to 270 B.C.) that stressed the uncertainty of our beliefs in order to oppose dogmatism. Pyrrhonian skepticism flourished from Aenesidemus' revival (1st century B.C.) to Sextus Empiricus (2nd century A.C.)