Despite the rearguard efforts of Robert Stalnaker and Max Cresswell, by the late 1990s it became widely acknowledged that sets of possible worlds are too coarsely grained to serve as propositions. It is safe to say that among those philosophers who believe in propositions, most think of them as sententially structured entities, composed out of the contents of the words and phrases in the sentences that express them. Fregeans hold that these contents are Fregean senses; Russelians hold that they are objects, properties, and relations.

Yet the 1990s also saw new challenges and approaches to structured propositions. George Bealer and Michael Jubien have independently argued (i) that it is counterintuitive to hold that we believe and assert structured complexes, and (ii) that theories of structured propositions are subject to the same problem that Paul Benacerraf raised for set-theoretic reductions of arithmetic. On one such reduction, the number 2 is identified with the set \{\{\emptyset\}\}; on another, 2 is identified with \{\emptyset, \{\emptyset\}\}, where \emptyset is the null set. Benacerraf’s problem is that there are no principled reasons for preferring one or the other reduction, or any of the infinitely many equally good alternatives, and so none of these reductions can be correct. For similar reasons, the proposition that Jones loves Smith cannot be identified with the ordered set \langle love, \langle Jones, Smith\rangle\rangle, or with \langle Jones, \langle Love, Smith\rangle\rangle, or …

These and other problems led Bealer to reject all reductions of propositions to structured objects and to hold that propositions are unstructured and irreducible. They led Jubien to reject propositions altogether in favor of a Russellian multiple-relation theory of judgment, which dispenses with propositions by analyzing “believes” and other attitude verbs as many-place predicates that relate subjects to objects, properties, and relations instead of to whole propositions. However, (i) is debatable, and (ii) can be avoided if one can provide a rationale for preferring one system of reduction. For example, Jeffrey King holds (roughly) that a structured proposition is obtained by replacing the words of a sentence with their contents while retaining the syntactic relations in the logical form of the sentence. This solves Benacerraf’s problem because the structure in propositions is identified with the syntactic structure in the logical form. The connection with syntax provides a principled reason for identifying propositions with the structured objects proposed by King.

Another approach to structured propositions is due to Jon Barwise and John Etchemendy, who use what they call “Austinian propositions,” named after the Oxford philosopher J. L. Austin, in their solution to the liar paradox. An Austinian proposition is like a structured Russellian proposition except that it contains a contextually determined situation that the proposition is about. So while the Russellian proposition that Claire is playing cards is true just in case Claire is playing cards, the Austinian proposition that Claire is playing cards is true just in case Claire is playing cards in the contextually determined situation. For every situation \(s\), there is a liar proposition \(f\) about \(s\) that claims that \(f\) is false in \(s\). In Barwise and Etchemendy’s formal development, it turns out that every such \(f\) is simply false. However, for every \(s\), there is an expanded situation \(s'\), and there is a true proposition \(p\) about \(s'\) that claims that \(f\) is false in \(s'\). The intuition that the liar proposition \(f\) is both true and false arises out of a failure to keep separate the distinct Austinian propositions \(f\) and \(p\).

A general challenge to propositions has come from Donald Davidson, who has used the so-called slingshot argument to collapse all facts into a single Great Fact, effectively robbing facts of their philosophical utility. Davidson argues that if we give up on facts, we should also give up on entities that represent facts, such as propositions. The slingshot argument can also be used directly against propositions to show that all true propositions collapse into a single Great Proposition. But as Stephen Neale has shown, the slingshot argument can be avoided as long as one holds that sentential operators like “the fact that … is identical to the fact that …” and “the proposition that … is identical to the proposition that …” satisfy certain logical constraints on inference rules involving definite descriptions. This constraint can easily be satisfied if one adopts a Russellian analysis of definite descriptions (which construes “The \(f\) is \(g\)” as “There is exactly one \(f\), and it is \(g\)”).

See also Meaning; Propositional Attitudes: Issues in Semantics.

Bibliography
PROTAGORAS OF ABDERA

Protagoras of Abdera in Thrace, most famous of the Sophists, was born not later than 490 BCE and probably died soon after 421 BCE. According to Plato, he was the first to declare himself a professional Sophist. He went from city to city in the Greek world, offering instruction in return for money, and he undertook above all to train young men in the art of politics. He was well known in Athens, where he enjoyed the friendship of Pericles—he produced a theoretical basis for Periclean democracy and was asked by Pericles to draft the constitution for the new colony of Thurii in 443 BCE. He made contributions to grammatical and rhetorical theory, and his views on religion provoked charges of impiety against him in the courts, which led to his exile from Athens at the end of his life and to the public burning of at least one of his books.

His writings were numerous and included “On Truth,” “On the Gods,” and “Antilogic” (or “Antilogies”). Later writers probably took their information about him mainly from the accounts of Plato, Aristotle, and Sextus Empiricus, but one of his works was read by Porphyry in the third century CE, and in the Hellenistic period he was regarded as sufficiently important for his statue to be set up, together with those of Plato, Aristotle, and other thinkers, in the Serapeum at Memphis in Egypt.

Since the time of Plato, Protagoras’s main doctrines have been regarded as possessing considerable philosophical interest, even by those who deny philosophical importance to the Sophists in general; but very divergent interpretations have been propounded. With no surviving works and virtually no fragments, interpretation must depend upon the assessment of the evidence of Plato, Aristotle, and Sextus Empiricus. In what follows, the view is taken that Plato in the Theaetetus correctly states the basic position of Protagoras and then proceeds to distinguish certain possible developments of this position not held by Protagoras. The basic position was independently understood in the same way by both Aristotle and Sextus Empiricus, each of whose information was not simply derived from the Theaetetus. This would be denied by some scholars.

EPISTEMOLOGY

The starting point must be the famous contention that “man is the measure of all things, of things that are that [or ‘how’] they are and of things that are not that [or ‘how’] they are not.” Theodor Gomperz maintained that “man” is to be understood collectively in the sense of “mankind as a whole” or “the human race.” But against this, the evidence of the Theaetetus 152a–b seems to show conclusively that it is individual men that Protagoras had in mind in the first instance, although, as will be seen, his theory is capable of easy extension to groups of men, and he probably made this extension himself.

According to Plato’s example in the Theaetetus, when the same wind appears cold to one person and warm to another person, then the wind is warm to the person to whom it appears warm and is cold to the person to whom it seems cold. It follows that all perceptions are true and the ordinary view is mistaken, according to which, in cases of conflict, one person is right and the other person is wrong about the quality of the wind or of anything else. This clearly was the position held by Protagoras, but it is not clear exactly how he came to this view. It is often held that his position is a kind of subjective idealism similar to that of Bishop Berkeley, according to which qualities in a thing are for the person to whom they seem, so long as they seem to him, but have no existence independent of their seeming.

Against this view, Sextus Empiricus is explicit: All qualities perceived by different persons are actually present in matter. Sextus’s introduction of matter may well be anachronistic, but his account suggests an alternative view, accepted by F. M. Cornford among others, according to which opposite qualities are copresent in objects, and in cases of conflict of perceptions between two persons, what happens is that we have a sort of selective perception—one person perceives one quality and the other its opposite, both qualities being present in the situation, waiting to be perceived, as it were, independently of any actual perceiving by a subject. This view seems to have the support of Aristotle, who always treats Protagoras’s doctrine as involving the denial of the principle of contradiction, and the view coincides with incidental pointers in Plato’s account (“the same wind”—152b; “perception, then, is always of something that is”—152c). It is true that in the “secret doctrine” attributed to Protagoras by Plato (152cf.) the independent status of sense objects is undermined, but the fact that this is presented as a secret