H.G. CALLAWAY, *Meaning without Analyticity. Essays on Logic, Language and Meaning*, Cambridge Scholars Publishing, Newcastle upon Tyne, 2008, 226 p., ISBN 9781847189752

The volume assembles thirteen essays on logic, language and meaning, and is preceded by an introduction by Paul Gochet. Most of the papers were published between 1981 and 2000 in European journals such as *Dialectica*, *Logique et Analyse*, and *Erkenntnis*. The papers stand apart, yet throughout the book an overarching view on the relation between pragmatics and semantics transpires clearly. Callaway defends a midway position between American analytical philosophy and American pragmatism. The result is a blend of Quine's scientific philosophy and Dewey's social pragmatism. In addition other thinkers such as Frege, Peirce, Davidson, Putnam, Fodor and Haack are critically discussed.

The central theme is an analysis of the notion of meaning. Callaway subscribes to Quine's rejection of the analytic-synthetic distinction, but refrains from the subsequent Quinean doctrines of the indeterminacy of translation and meaning and the inscrutability of reference. The Quinean behaviorism in linguistics is replaced by the pragmatists' approach. As a result, meaning can be identified in the social practices of a community, or in other words, semantics is grounded in pragmatics. An apparent whiff of relativism notwithstanding — meaning is relative to the social practices of a particular community — Callaway believes that his contextualism should not be equated with cultural relativism. The scientific project is a common project for all cultures, and scientific progress is seen as the major force behind linguistic and semantic change.

The first essay 'Does Language Determine our Scientific Ideas?' argues that the influence of language on science, philosophy and other fields is mediated by communicative practices. As a result of the study of the native American languages by among others, Sapir and Whorf, it has often been remarked that every language contains its own *Weltanschauung*. On this view, the semantics of a language is not separate from the scientific and metaphysical worldview of the linguistic community. This so-called Sapir-Whorf thesis is closely related to the Kuhnian view that also scientific concepts are deeply affected by a global worldview. In the paper this view is made more precise, and the sociology of belief is brought to bear in particular on scientific knowledge. Moreover, Callaway believes that the understanding of the social-cultural presuppositions of science may enable us to control these presuppositions. To this end, linguistic cooperation is explained by means of Alexrod's game-theoretic models of human cooperation. Willingness to cooperate, i.e. using simple and clear language, is construed as adopting the TIT FOR TAT strategy. More intricate

models of social hierarchies and group formation in language and science can be modelled through Alexrod's theory of (linguistic) labels. Callaway suggests that communications highly structured by labelling with regard to intellectual affiliations and institutional structures can lead to insularity and dogmatism, while a more democratic structure of communication may facilitate deeper argumentation and understanding. The final remarks are interesting and could have benefited from some further elaboration. The central question of the first essay is somehow ambiguous. Language can on the one hand determine the *use* of certain ideas within some community, and on the other hand the *meaning* of certain ideas. The crucial part of the first essay dealt explicitly with the pragmatics of scientific language. Hence, the Sapir-Whorf thesis and the Kuhnian doctrine of incommensurability were not directly addressed. In the later papers, the relation between pragmatics and semantics becomes more important.

The second essay 'Semantic Theory and Language' takes issue with generative semantics. In the mid-sixties, the Chomsky school of generative grammar fell apart, and the so-called generative semantics wing, comprising among others Katz, Postal, and Lakoff, believed that human linguistic competence is based on fixed semantic rules. Callaway argues that such semantic rules are not given or innate, but are entrenched in a system of empirical knowledge. No strict demarcation between semantic rules and matters of fact and belief can be given. This critique of generative semantics is inspired both by Chomsky, who believes that semantic rules need not be beyond infallibility, and by Quine's rejection of the analytic-synthetic distinction.

In 'Meaning and Analyticity' the analytic-synthetic distinction is under further attack. In particular, Putnam's 'trivial analyticity' is dismissed. Putnam had characterized analyticity as unrevisable linguistic obligatoriness. 'Tigers are striped' is analytic because it is obligatory to acquire the information that stereotypical tigers are striped when learning the meaning of 'tiger'. This characterization of analyticity is confronted with Putnam's four-dimensional theory of meaning and found wanting. Putnam defined meaning as a vector whose components include syntactic marker, semantic marker, a description of the additional features of the stereotype and, if any, an extension. Callaway argues that ignorance concerning the extension of concepts may lead to false positive and false negative synonymy or analyticity judgements, and pleads for a conception of meaning that is not linked to analyticity.

The fourth essay 'Sense and Mode of Presentation' is based on part two of Callaway's book *Context for Meaning and Analysis* (Rodopi, 1993). It opens with a long description of Frege's analysis of identity statements, which ends

with the complaint that Frege's theory of senses and modes of presentation lacks a clear account of sameness and difference of meaning. In addition, Callaway points at genuine failures of Frege's subsitutivity principle. E.g., one can deduce from 'John believes that Venus is a planet' the nonsensical 'John believes that the customary sense of 'Venus' is a planet.' In the constructive part, it is argued that traditional semantics and the sense-reference distinction can be replaced by Davidsonian theory of meaning, based on referential semantics. This particular view is defended against Quine's and Davidson's inscrutability of reference argument. Callaway downplays the correspondence conception of truth in Davidson's work, and argues that reference is grounded in the actual use of a language. Reinterpretations of a language are parasitic upon the normal use, and are no genuine alternatives to the normal interpretation.

In the most central essay of the volume, 'Meaning Holism and Semantic Realism', a naturalized theory of meaning is put forward. Callaway tries to steer between the Scylla of Quine's behaviorism and the Charybdis of Fodor's representational theory of mind. Callaway starts with Fodor's distinction between narrow and broad content. Fodor's claim that meaning is narrow content, i.e. that meaning is determined by the wiring of the brain and not by the worldly environment, implies that meaning need not determine extension. The Twin-Earth puzzles illustrate the difficulty; water has the same narrow content on Earth and Twin-Earth, but its extension is H₂O on Earth and XYZ on Twin-Earth. Fodor replies that meaning does determine extension, but only relativized to context. Callaway analyzes this context-dependence. He argues that the typical Twin-Earth puzzles are misleading, because they invoke a God's eye view on the different contexts, from which the different contexts can be compared. He subsequently relates the context-dependence of meaning to Quine's meaning holism, and argues that meaning cannot be approached except in relation to an assumed context of empirical knowledge. Such a belief system cannot be an individual idiosyncratic belief system. Callaway strongly argues that there is always social uniformity with regard to the accepted beliefs within a language. The shared belief system of a community can fix the ontology, and hence meaning can determine extension unequivocally. Since this belief system is not immune to revision, Callaway's fallibilism leads to a moderate pluralism or contextualism. Scientific progress may lead to meaning change. This observation leads to a rejection of the analytic-synthetic distinction. Callaway has reconciled Quine's and Fodor's views in a remarkable way.

In 'Logic Acquisition, Usage and Semantic Realism' the meaning and use of logical connectives is scrutinized. Callaway tries to find a common ground from

which to compare intuitionism and classical logic. He takes issue with Quine's indeterminacy of translation, and the role of logical connectives in the analytical hypotheses that underlie radical translation. It is argued that learning logic is part of learning theory. While learning a language, people detect recursive procedures involved in informants' assent and dissent to truth-functional compounds. To this end, one must not interpret isolated sentences, but the systematically related sets of sentences. Callaway believes that objective differences between conceptual, in this case logical, systems can be detected from evidence available in argumentation. In this way, one can determine whether some linguistic community uses classical or intuitionistic logic. One major problem that is not addressed by Callaway is that psychological and anthropological research in recent years have made clear that determining the logical system of a community is very tricky. Since the work of Johnson-Laird, there has been an ongoing discussion in psychology on the logic underlying the deductive patterns of humans. Analogously, Cosmides and Tooby defended the controversial thesis that social strategies influence deductive patterns. One may conclude that isolating the deductive patterns that are considered sound from the overall argumentation patterns within a community involves tremendous methodological difficulties that easily lead to insurmountable controversies.

Callaway's admiration of the pragmatist tradition is most outspoken in 'Intentionality Naturalized: Continuity, Reconstruction, and Instrumentalism.' Dewey's pragmatism is exposed and praised, in particular its naturalism or scientific orientation, its moderate holism, and its emphasis on social interaction. Most importantly, Dewey's pragmatism leaves room for the normative. The central theme of the essay is the analysis of intentionality and meaning within the Deweyan framework. Many characteristics of Dewey's theory of intentionality and meaning have been defended by Callaway in the preceding essays.

The more substantial papers are interspersed with various book reviews of uneven importance. It is unclear what the review of the electronic edition of Dewey's *Collected Works* is supposed to add. The other reviews are of Quine's *Pursuit of Truth* (1990), Simon Evnine's *Donald Davidson* (1991), Ulrich Balzer's *Erkenntnis als Relationengeflecht: Kategorien bei Charles S. Peirce* (1994), Susan Haack's *Manifesto of a Passionate Moderate* (1998). The most elaborate and interesting review (co-authored by J. van Brakel) is 'No Need to Speak the Same Language?' of Bjorn Ramberg's *Donald Davidson's Philosophy of Language*.

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