



Book review

**Conventionalism, Y. Ben-Menahem. Cambridge University Press, Cambridge (2006).
x + 330pp., US\$80.00, Hardback, ISBN: 0521826195**

This book aims to present a historically sensitive account of conventionalism's main guises, tenets, merits, defects, proponents and critics. Ben-Menahem advances two claims above all others. First, she claims that conventionalism has time and again been misconstrued as the view that truth reduces to convention. Let us call this 'thesis A'. Second, she maintains that the ambition to extend the original scope of conventionalism gradually led to the position's demise. Let us call this 'thesis B'.

Seven chapters make up the book. The first offers a useful and lengthy summary of what is to come. The second traces the origins of conventionalism primarily to Henri Poincaré and to a lesser extent Pierre Duhem. Ben-Menahem's principal objective here is to distinguish Poincaré's geometric conventionalism from the radical view that truth is replaced by convention and the trivial view that objects can have different names. Two chief motivations for Poincaré's view are identified. First, the axioms of geometry are conventional for they are implicit definitions of whatever we take to be the basic concepts, i.e. 'line', 'point', etc. (p. 41). Second, in both its pure and applied forms geometry is seen as underdetermined by experience and logic (*ibid.*). The idea that geometry is underdetermined is taken up in chapter three which gauges the impact of the general theory of relativity on geometric conventionalism. The empiricist's announcement of the latter's death at the hands of the former, Ben-Menahem argues, is rather hasty as the relevant arguments are indecisive. Michael Friedman's appeal to unification, for example, is criticised on account of its inability to pick out particular interpretations of the spacetime metric, something that leaves the door open for conventionalism which thrives on the existence of multiple interpretations (pp. 123–127).

The two chief motivations for Poincaré's conventionalism, Ben-Menahem claims, were hijacked by subsequent philosophers to promote views that far exceeded the original arguments' mandates. As a result two fundamentally different kinds of conventionalism emerged: (1) a conventionalist account of choice between empirically equivalent (i.e. underdetermined) theories (CUT) and (2) a conventionalist account of necessary truth (CNT). The two kinds share an emphasis on our relative freedom to choose between systems, be they scientific, mathematical or logical. The similarities; however, end there, insists Ben-Menahem. Whereas, CUT challenges contingent truths, requires the presence of alternative theories and reads conventions as value-laden choices, CNT challenges necessary truths, eschews the alternative theory requirement and takes conventions to be constitutive of axioms or rules (pp. 15–16, 219–225).

The failure of the more ambitious forms of conventionalism, according to Ben-Menahem, can be witnessed in the works of Carnap, Quine and Wittgenstein. Carnap, particularly in *The Logical Syntax of Language* ([1934] 1937), puts forth a form of CNT that sees logical and mathematical truths as constituted by conventions. In chapter five, Ben-Menahem informs us that contrary to received wisdom Carnap falls short of sanctioning a ‘free-for-all’. He curbs his conventionalism to analytic/necessary truths (p. 178) and demands the consistency of the resulting formalism (pp. 202–203, 208–209). The gist of this message originates in chapter four, where Ben-Menahem argues that the demands for a set of axiom’s consistency and satisfaction ward off interpretations of the notion of implicit definition as an instrument that inescapably leads to radical conventionalism (p. 160). The last section of this chapter discusses the limits of using theories to implicitly define theoretical terms. Those expecting an in-depth analysis of this central topic in the philosophy of science will be let down as the discussion is cursory. Back in chapter five, Ben-Menahem diagnoses Carnap as being torn between the principle of tolerance, which holds that there are no morals in language choice, and the principle of verificationism, which holds that the ultimate moral is that observation alone fixes meaning. The friction eventually forces Carnap to loosen the tolerance principle’s grip on language and to withdraw his support for CNT in its original form. Carnap, Ben-Menahem assures us, never gave up the “general conventionalist thrust” but rather realised that “the extreme conventionalism of [*The Logical Syntax of Language*] proved untenable” (p. 217).

In chapter six we learn that Quine draws on the web-of-belief metaphor to (i) undermine Carnap’s CNT and (ii) advance his own CUT brand of conventionalism. The metaphor illustrates a holistic view of knowledge and confirmation that denies the existence of different kinds of truths (e.g. analytic, synthetic and necessary) and hence clashes with Carnap’s CNT (pp. 237–240). Ben-Menahem sees Quine’s espousal of the argument from the underdetermination of theory by evidence (UTE) as the culmination of his holistic view and ultimately as the motivation behind his own brand of conventionalism. UTE’s partiality to anti-realist views of theory is well known. The conventionalist merely adds, ‘acceptance of a theory is a matter of choice guided by non-epistemic criteria like simplicity’. Quine (1975) realised that it takes more than logical incompatibility and empirical equivalence to make a genuine underdetermined rival. Ersatz rivals can be produced at will by taking a given theory and consistently swapping two of its theoretical terms. This results in incompatible yet empirically equivalent theory formulations of the same theory, i.e. not genuine rivals. Are there genuine rivals to any given theory including a future empirically complete theory of the world as UTE suggests? Quine’s remark that this is “an open question” acquires gravity in Ben-Menahem’s analysis. Although she admits that Quine never abandoned UTE, Ben-Menahem professes that his doubts linger on in subsequent writings (pp. 248–249). This, she claims, indicates that UTE and by extension CUT lose their bite.

It is not hard to appreciate the force of Ben-Menahem’s arguments against radical conventionalism. It is, however, far from clear that milder forms of conventionalism like Quine’s are similarly untenable. Quine’s qualms about UTE fail to crystallise into a concrete objection and therefore hardly dent the prospects of a viable CUT. A more serious challenge cites the lack of actual cases of genuine rivals (p. 247). Alas this is neither an original objection nor one that gives heed to the standard replies. One such reply considers the historical absence of genuine rivals as virtually immaterial to the issue

whether such rivals exist. After all, it seems plausible to suggest that scientists have more incentives to find rivals with greater empirical content rather than empirically equivalent ones. Another type of reply manifests itself in algorithmic attempts to produce genuine rivals from existing theories. Even if inadequate, these replies need to be addressed. In all, the discussion on UTE is rather disappointing, not least because the author only scratches the surface of the relevant literature.

Unscrambling Wittgenstein's thoughts is never an easy task and Ben-Menahem's attempt to do so in chapter seven is certainly no exception. At times Wittgenstein conveys a thoroughgoing conventionalism with respect to necessary truths, insisting that they are nothing but grammatical connections. Yet to account for necessity, Ben-Menahem contends, conventionalism presupposes a practice of proper rule following according to which "agreed-upon rules" *explain* and *justify* why people accept "a particular inference or calculation" (p. 256). This presupposition, she argues, collides with Wittgenstein's (1953) rule-following paradox: "no course of action could be determined by a rule, because every course of action can be made to accord with the rule" (p. 201). In Ben-Menahem's iconoclastic reading of the paradox, neither rules nor applications determine each other and thus appeal to rules cannot explain or justify why it is that we follow particular applications (p. 259). For those interested in a coherent account of Wittgenstein's view this presents a dilemma: Either find a reply to the paradox or give an alternative account of his view of necessity (p. 257). To overcome the dilemma, Ben-Menahem reminds us that for Wittgenstein it is not the business of philosophy to explain or justify but only to describe. His conventionalism thus presumably escapes the paradox's clutch. The upshot, in Ben-Menahem's view, being that the paradox dashes any hopes for a radical form of conventionalism.

A broad concern with the book takes the form of a conflict between the two central theses. On the one hand, thesis A holds that conventionalists never endorsed the wholesale replacement of truth with convention. On the other, thesis B holds that those who extended the view's original scope have sent conventionalism to the morgue. If the extensions never went as far as the replacement view, the conflict would be resolved. Yet, Ben-Menahem, by her own admission, cites various philosophers who advocated such extensions, namely Edouard Le Roy (p. 224), Thomas Kuhn and Paul Feyerabend (pp. 10–11, 22, 67–68). In spite of her efforts, even the early Quine comes out as a radical conventionalist. In his 'Lectures on Carnap', Quine (1934) effectively extends Carnap's CNT to empirical truths. He does so by first endorsing the view that analytic statements are conventional and then arguing that in principle we could turn any statement into an analytic one. Ben-Menahem notes as much when she says that Quine "proceeds unceremoniously to the empirical" (p. 227). Yet, she goes on to deny that Quine's early view is conventionalist because that would contradict the way conventionalists like Carnap view their project, namely as delimiting the empirical from the non-empirical (p. 229). Nothing weds conventionalism to this distinction, least of all logical implication. Ben-Menahem may argue that radical conventionalism is indefensible but she cannot sensibly claim that conventionalism it is not.

Another unsettling aspect of the book is that the reader never gets an unequivocal statement of the author's ultimate stance. Ben-Menahem appears sympathetic to Poincaré's view. In chapter two she extols its virtues, notably the absence of 'truth by convention' locutions and the presence of actual (and non-trivial) underdetermination between different geometries. Chapter three, she declares, is "the only chapter that aims at

a qualified defence of a conventionalist argument” (p. 35), adding that geometric conventionalism has not yet been refuted (p. 36). Yet Ben-Menahem refrains from explicitly endorsing Poincaré’s view. More confusion follows from the fact that she goes to great lengths to reconcile Wittgenstein’s conventionalism with the rule-following paradox, again without a clear endorsement. Poincaré’s and Wittgenstein’s views appear to be incompatible. Is the author a geometric conventionalist or an iconoclastic one? And what of thesis B, according to which conventionalism is dead? Are we to take this as a claim about the fate of the more ambitious forms of conventionalism or of conventionalism tout court?

Ben-Menahem’s book offers a wonderfully detailed look at the history of conventionalism. Even though the analysis is at times flawed or put on the backburner, more often it is stimulating and incisive.

References

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