The study of human language is, in large part, an empirical enterprise. So it is no surprise that philosophers of language are becoming increasingly interested in experimental data and the methods used to obtain those data. This has led to rapid growth in the literature on experimental philosophy of language, out of which two broad research programmes can be distinguished. The positive programme involves the collection and use of experimental data to help formulate and support various semantic and pragmatic hypotheses. The negative programme involves the collection and use of experimental data to undermine the more traditional armchair methodologies for theorising about language and, in particular, reference. In mainstream philosophy of language, the negative programme has attracted more attention than the positive.

*Advances in Experimental Philosophy of Language* (henceforth *Advances*) collects together eight new papers, along with a brief introduction. While all of the individual papers are high quality contributions to the field, as a collection they accomplish something more interesting. Together, they indicate that the literature in experimental philosophy of language is undergoing a shift in focus away from the negative programme and towards the positive programme.

For example, Michael Devitt’s previous work in the area has principally engaged with the negative programme. In his contribution to *Advances*, he draws out his case that theories of reference should be experimentally tested using elicited production, and proceeds to outline his own attempt (with Wesley Buckwalter and Kate Devitt) to perform such tests. Devitt takes these attempts to be unsuccessful—due to difficulties in determining whether participants were using certain words with their ordinary meanings or in ‘implicit scare quotes’—, so he closes by urging that ‘[w]e need experiments to control for this worry’ (p. 55).

Similarly, Daniel Cohnitz has previously focused largely on the negative programme. And, in his contribution to *Advances*, he likewise uses his earlier work to motivate a foray into the positive programme. In contrast to Devitt, however, Cohnitz does not conduct any experiments of his own. Rather, he provides examples of eye-tracking experiments from the psycholinguistic literature that, he claims, avoid certain methodological problems that he associates with surveys of intuitions—viz. that surveys fail to indicate both whether participants are reporting semantic interpretations or ‘lay-theories of reference’ (p. 100), and whether participants are reporting speaker reference or semantic reference. Cohnitz urges philosophers of language to use such techniques to obtain the ‘raw data’ (p. 104) relevant to theories of reference.
Sören Häggqvist and Åsa Wikforss critically discuss the negative programme with regard to
the reference of proper names, before turning to natural kind terms. They argue that Putnam’s and
Kripke’s thought experiments do not suffice to establish a Millian account of natural kind terms,
urging that empirical evidence is required. They then discuss experimental data from the literature, as
well as data from the history of science, arguing that the data in fact suggest a cluster theory for
natural kind terms.

Other contributions to Advances build upon the relevant author’s previous work in the
positive programme. Ángel Pinillos discusses experiments concerning natural kind terms that he,
Shaun Nichols and Ron Mallon have reported elsewhere, and then extends the experiments to cover
proper names. In particular, Pinillos presents new experimental data that, he claims, supports the view
that proper names are ambiguous between a descriptivist reading and a causal-historical reading.

Mark Phelan examines transparent ascriptions, sentences such as ‘I believe that your keys are
in the car’. Transparent ascriptions are often used to report a psychological state, but in other contexts
are used to convey something about the world—such as when I utter the above ascription while you
are looking for your keys. Phelan considers two explanations of this context-shiftiness, one that
appeals to Gricean mechanisms and the other, the direct expression view, according to which ‘I
believe that’ and cognate expressions serve, in some contexts, only as a hedge. (In such a context, an
assertion of ‘I believe that your keys are in the car’ is true if, and only if, your keys are in the car.)
Phelan reports new experimental data from three experiments that favour the direct expression view
over the Gricean view.

Even the more critical papers in Advances display a certain sympathy for the positive
programme. Consider Genoveva Martí’s contribution, which is critical of experimental work on
general and natural kind terms. Martí focuses on one of the studies discussed by Häggqvist and
Wikforss, and the study by Nichols, Pinillos and Mallon discussed in Pinillos’s paper; she denies that
either study presents a problem for Kripke’s causal-historical picture of reference. However, Martí
clearly accepts (p. 167) that the studies plausibly present the kind of data that can underpin semantic
theorising.

Similarly, Max Deutsch defends his earlier view that, contrary to what most participants in
the debate think (and, in particular, what Devitt thinks), Kripke’s famous arguments in Naming and
Necessity do not rely on intuitions. He closes, however, by admitting that some experimental work
does ‘shed light on issues in first-order philosophy of language’ (p. 25)—just not experimental work
that ‘involves surveying intuitions’.

It is only Edouard Machery’s contribution that does not engage with the positive programme.
First, Machery outlines his (and others’) earlier data for demographic variation in folk semantic
intuitions and considers the response that the folk are confused about the concept of reference. He
provides a ‘Rylean’ argument that, if the folk are indeed confused, then it is unclear why theorists
should accept that proper names refer and predicates have extensions.
There is one respect in which Advances disappoints: despite ample opportunity, there is no engagement between the papers. Here are three examples. First, Devitt says that he has ‘no idea’ how eye-tracking and other psycholinguistic studies could be used to test theories of reference (p. 58n21), while Cohnitz provides two in depth examples. The reader is left wondering whether Devitt would be happy with Cohnitz’s examples, or whether he sees deeper, underlying worries.

Second, Martí discusses two studies in the literature, arguing that they are compatible with a Kripkean causal-historical picture of reference. However, one of those studies is used by Häggqvist and Wikforss to tentatively support a cluster theory of reference, and the other is taken by Pinillos to support an ambiguity theory. Without engagement between the papers, it is neither clear whether the authors disagree with each other nor what, if they do disagree, the key points of tension are.

Third, Deutsch criticises the common assumption that the standard methodology in the philosophy of language involves using intuitions as evidence, highlighting Devitt as a main offender. Yet Devitt baldly states that the standard methodology ‘simply tests theories of reference against philosophers’ referential intuitions’ (p. 31), and other contributions largely assume the same. The reader would benefit from a critical discussion of Deutsch’s contribution somewhere in the collection.

Overall, Advances is a welcome addition to an already thriving literature. As the papers largely build upon work published elsewhere, it is perhaps not the best option as an introduction to the literature nor as the basis of a graduate class. Regardless, anyone with a research interest in experimental philosophy of language should read it—if only to see how theorists are increasingly thinking about the importance of the positive programme in experimental philosophy of language.

MARK PINDER

University of Reading