Book Review


Ray Jackendoff’s new book has been called ‘startling and insightful’ by Steven Pinker, and rightly so. Jackendoff and Pinker are probably the best two scholars of language and mind currently inhabiting the planet, and whenever a book by one of them appears, it can be expected to bring powerful insights and illuminating syntheses to the field. Jackendoff’s book delivers, and then some. Written in an informal style otherwise uncharacteristic of Jackendoff, but lively and entertaining, the book is essentially a brief presentation of Jackendoff’s life’s work (give or take a few subjects), bringing together his ideas and hypotheses on: language, words, and meaning (Part One); consciousness and perception (Part Two); reference and truth (Part Three); rationality and intuition (Part Four). Beginning with deceptively simple examples, the book progresses towards a comprehensive account of some of the most important issues in the study of language, mind and meaning.

In Part One, Jackendoff expounds his views on language, words and meaning. Jackendoff is well-known for his Chomskyan, mentalistic approach to language and meaning (which is much more controversial when it comes to the latter), and, as he explains early on in the book, he views language as a mental system, an aspect of the mind that allows us to express our thoughts. Jackendoff deals with the claims that language is essentially a social entity in the following way: “[A] language [...] only exists in a society because it exists in the heads of speakers [...]” (10). So, something like the English language or the Croatian language is an idealization over the mental grammars of English or Croatian speakers. Speakers of a language almost never have exactly the same system in their heads (if for no other reason, then because their respective vocabularies differ), but for them to be able to understand each other it suffices that these systems are sufficiently similar. Sociolinguists might object that some generalizations are best expressed (or only expressible) by reference to language construed as a social entity, existing in its own right, but, as Jackendoff points out, we still have to explain how individual members of a community are able to learn and use this system, which brings us back to the mental perspective as more fundamental.

The theme of competing, partially connected yet mutually irreducible perspectives permeates the book, the main contrast being that between
the *ordinary* and the *cognitive* perspective. The ordinary perspective is the everyday perspective that is responsible, amongst other things, for our common-sense ontology, which includes language as an autonomous entity existing out there in the world. The cognitive perspective, from which the investigations of the book are carried out, tries to account for the workings of the mind that are responsible for our experience of the world and our behavior. Jackendoff stresses that all perspectives, amongst them also the neural perspective and the physicalist perspective, contribute to our understanding of the world (this claim then expresses his ‘perspectival perspective’) and that it is sometimes beneficial or necessary to shift among perspectives, but he also often shows how the problems and paradoxes that appear in the ordinary perspective (from which many philosophers conduct their inquiries) can be resolved if we switch to the cognitive perspective.

Entwined with the issue of the nature of language is the issue of what a word is. Jackendoff points out that “words are part of the system in people’s heads that they use to build messages” (24), and also that what counts as the same word depends on what system it is in. Jackendoff doesn’t repeat here his definition of the word as a long-term memory association of phonological, syntactic, and semantic features, that can be found in his *Foundations of Language* (Oxford University Press, 2002), nor does he discuss more extensively the nature of the lexicon and of rules of grammar (in *FoL* he treated the latter as a specific form of lexical item, namely one devoid of phonology and containing variables, thereby bridging the gap between “elements of combination” and “principles of combination” for a language). As stated, Jackendoff’s goal in this book is to give a brief and informal overview of his main ideas concerning language and mind, so readers looking for a more extensive and formalized treatment of certain issues should consult some of his other many books (but those being rather complex and technical, this book can also serve as a great introduction to the themes elaborated there).

Some familiar philosophical doubts might be raised with regard to the view of language expressed in the book, namely the Wittgensteinian(-Kripkean) sceptical issue of whether we could ever determine exactly which rule people are following. Jackendoff doesn’t address this issue, and I suspect he doesn’t have much patience for it either — justifiably so, in my opinion. It seems to me that these kinds of sceptical doubts have received much more attention than they deserve, and that it is much better policy to try to frame explanatory and testable hypotheses than to tie oneself in knots over problems that can in all likelihood never be resolved. On the other hand, Wittgenstein (from the *Investigations*) does appear in many places in the book, and his insights are sometimes even accepted, which is somewhat surprising, given how alien his behaviorist-interactionist account of meaning (if I may put it so) is to Jackendoff’s own mentalistic approach.

A philosophical issue concerning language that Jackendoff does address is semantic externalism of the Putnamian sort. Putnam’s famous claim, pertaining to natural kind terms, is that their meaning depends (partly) on the environment (and other speakers, namely experts), whereby he means the essential nature of the referents of these terms, as discovered by science. Jackendoff accuses Putnam’s approach to meaning as “delegitimating our
ordinary way of understanding the world” (21), as having the implication that, until the advent of modern chemistry and biology, no one really knew what words like ‘tiger’ or ‘gold’ meant. Jackendoff stresses that “for as long as people have encountered gold and tigers, they have always had ordinary concepts of them, which have been perfectly adequate for most everyday interests and goals. And these ordinary concepts are what are associated with the words gold and tiger in people’s minds.” (19). Now, although I believe that externalism is indeed a misguided approach to meaning (even if it does express an important intuition that arises, as Jackendoff would say, in the ‘ordinary perspective’), my feeling is that Putnam gets somewhat short-changed here. In his “The meaning of ‘meaning’” (1975) Putnam construes his ‘normal form for the description of meaning’ as containing four factors, three of which are ‘in the head’ (syntactic markers, semantic markers and stereotypes) – his point is, however, that the fourth factor, the extension, is not determined by these mental factors, but has to be discovered by science (chemistry, biology, physics, etc.). And, although indeed implying that before chemistry discovered the composition of gold, we didn’t “really” know what ‘gold’ meant, Putnam’s goal is to avoid another (in his view) problematic implication, one that a purely mentalistic view of meaning might entail – namely, that with every new discovery about a natural entity, the meaning of the natural kind term changes (it is not “about the same thing” any more). So, these issues would seem to warrant a more extensive treatment, but since the main goal of the book is to present Jackendoff’s own views rather than to criticize others, this is only a minor flaw.

Meanings are, Jackendoff says, the thoughts expressed by language. He approaches the problem of meaning by asking what it is that meanings have to be able to do (in other places he calls such requirements the ‘boundary conditions’ on the description of meaning). Six such conditions are adduced: a meaning has to be linked to a spoken and/or written form of the language; meanings of sentences have to follow from the meanings of their parts i.e. compositionality has to hold (why this doesn’t work quite the way Frege thought is explained a bit later); translation should preserve meaning; meanings have to enable us to refer (though not in the way standard philosophical accounts assume); meanings have to support inference; meanings are hidden, i.e. unconscious. This last point is taken up in Part Two and expounded as the ‘Unconscious Meaning Hypothesis’, but before that Jackendoff has other important points to make. One is that, “although the meanings of words and sentences sometimes evoke visual imagery, they can’t all be visual images” (55) - and he explains why this is so. Another is that meaning most often cannot be described in terms of necessary and sufficient conditions, but rather exhibits graded boundaries and family resemblance characteristics (Jackendoff has been stressing this point, and developing methodology to deal with it, ever since his Semantics and Cognition [MIT Press, 1983], and it has also been a constant theme in cognitive linguistics, with which Jackendoff’s approach shares some affinities). A further point, and a crucial one, is that compositionality has to be seen as enriched – i.e. that the meanings of sentences aren’t just a function of the meanings of the words and the way they are combined, but also depend on other principles, the workings of which only sometimes manifest themselves overtly.
That the meanings of sentences sometimes include material not present in the words or the syntax can be seen by examining the following phenomena: implicature and discourse connection; ellipsis; reference transfer (“The ham sandwich in the corner wants more coffee.”); aspectual coercion (how come we understand “Joe jumped until the bell rang”, but not “Joe slept until the bell rang”, as involving repetition of the action described by the verb?). Herein Jackendoff’s approach connects well with the contextualist approaches in the philosophy of language, notably that of François Recanati, and offers further support for such views. In the final chapters of Part One, Jackendoff points out that not all concepts and thoughts are expressed (or even expressible) by language, that apes and babies have concepts and thoughts without having language, and that the language one happens to speak doesn’t radically influence the way she thinks.

Part Two opens with the statement of the Unconscious Meaning Hypothesis. It is here that the book gets less introductory, more technical and more provocative. Jackendoff hypothesises that thought and meaning are almost completely unconscious, and so that thought and consciousness “aren’t the same thing at all” (109). This thesis, while accepted by many of the most influential cognitive scientists (e.g. Pinker, George Lakoff, etc.), is still unpalatable to many philosophers (e.g. John Searle). It seems to be on the right track, though, as can be seen from the following two considerations. On the one hand, we are not aware of, and cannot explicate purely on the basis of introspection, either the rules of our language or the form of our thought. On the other hand, due to multiple realizability, we cannot simply equate these rules and this form with neural structures (even if we knew enough about the brain to attempt a reduction). So it seems necessary and justified to interpolate a level of unconscious structures and processes “between” consciousness and the brain (of course, accepting physicalism, it’s ultimately all just the brain – but we’re talking levels of description here).

This unconscious thought/meaning is organized in terms of two different yet interfaced systems: conceptual structure and spatial structure. Conceptual structure is abstract, algebraic, hierarchical and combinatorial. It is closely related to language. Spatial structure, on the other hand, encodes the shapes, motion and layout of objects in space. It is closely linked with visual perception and visual imagery, but also receives input from the haptic and proprioceptive systems. “The totality of thought and meaning”, Jackendoff states, “is an amalgam of the two.” (124), i.e. of conceptual and spatial structure, with each system being better at encoding some aspects of our understanding of the world. Jackendoff has been developing this twofold account of thought and meaning since his early works, and used it to deal (successfully, in my opinion - although some, notably Jerry Fodor, would beg to differ) with objections to a decompositional approach to meaning, which he favors and has made substantial contributions to (cf. his Semantics and Cognition, Semantic Structures [MIT Press, 1990], and other, more recent works).

So, what is it that’s conscious? Two things, according to Jackendoff. On the one hand, there are the content features of experience, its qualia – these are given primarily by verbal imagery: they are phonological in character. So most of what populates our consciousness is the sounds of language, ei-
ther coming from the outside or generated internally (in addition to verbal imagery, there’s also visual, auditory and other kinds of imagery). This is responsible for our common impression of thinking “in” a language. But this impression is misleading: we think in terms of conceptual and spatial structure, which are not available to consciousness, but we become aware of the thought/meaning because verbal and visual imagery afford a ‘handle’ on it. Language is not thought, therefore, but enhances it: the phonological handles give us the means to retrieve and manipulate thoughts in a way that isn’t otherwise possible.

The other aspect of consciousness are the character tags, or valuation features or feels. These are simple binary distinctions, such as +/- meaningful, +/- external, +/- familiar, +/- affective, +/- self-controlled, etc., metacognitive and multimodal in nature, that are attached to particular percepts or images. Their role is to inform us of the character of our experience – namely, whether we are hearing/seeing something that we can recognize as meaningful or not, familiar or not, whether it’s coming from the outside or being generated internally (an image), etc. These valuation features are based on checking for a link: e.g. we experience a sound as meaningful if the auditory image it generates evokes a link to a piece of conceptual structure; we experience it as coming from the outside if there is a link between the auditory image and auditory input; we experience it as having an emotional impact if there is a link between the auditory image and the emotional system, etc. Valuation features are not foolproof – in dreaming and hallucinations the link-checking monitor is generating false valuation features, presumably because it’s turned off (in the case of dreaming) or malfunctioning (in the case of hallucinations). Jackendoff bases his theory of theory of mind on these valuation features, but this theme is developed in his Language, Consciousness, Culture (MIT Press, 2007).

In the course of his treatment of consciousness and its relation to thought, Jackendoff criticizes some other influential theories of consciousness, such as higher-order thought theories and global workspace theories. It seems to me that he is right in most of what he says, and that his theory of consciousness, presented initially in his Consciousness and the Computational Mind (MIT Press, 1987), and also termed ‘the intermediate level theory’ (because it claims that what is conscious belongs to the intermediate level of perception, sensation being too ‘shallow’ and cognition being too ‘deep’), deserves to receive much more attention in the mainstream philosophy of mind than has hitherto been the case.

Part Three of the book deals with reference and truth. Again avoiding the ordinary perspective, which informs most philosophizing about these issues and construes reference and truth as relations between a linguistic expression and something in the world, Jackendoff opts for the cognitive perspective. From this perspective, the question is what happens in the minds of speakers and hearers when they refer and when they judge a sentence to be true. For a linguistic expression to refer is for it to be linked to a reference file in the mind, which contains a token feature (this encodes our keeping track of an individual) and everything else one knows about the individual, couched in terms of conceptual and spatial structure (this idea of mental files is currently also being developed by Recanati, and is, under
the name of dossiers, present in Larson and Segal’s *Knowledge of Meaning* [MIT Press, 1995] – but some other assumptions about meaning distinguish Jackendoff sharply from these scholars). Jackendoff claims that linguistic expressions “refer to the things that we conceptualize as being in the world” (160), and proceeds by offering a sketch of cognitive metaphysics, namely of the sorts of entities that “people’s minds populate the world with” (166). Amongst the kinds of ‘things’ that we refer to, and therefore understand the world as containing, are actions, types, sounds, places, amounts, etc. A particularly interesting point is that we also have reference files for, and understand the world as containing, sentences and thoughts. This allows us to refer to them, and talk about them. All of this offers a refreshing take on issues that are being dealt with extensively in the philosophical literature on the matter, the freshness being due largely to the taking into account of a larger set of data than is usually considered, and to the avoidance of focusing on standard examples (reference to objects) that often obscure the bigger picture.

When it comes to truth, Jackendoff claims that we judge a sentence to be true if there is a (good enough) match between its meaning and the relevant conceptual and spatial structures already present in the mind. This process of matching, which proceeds unconsciously, yields a character tag ‘assent’, ‘dissent’ or ‘neutral’ that appears in experience. This again seems like a promising line of inquiry into truth, one that can connect easily to cognitive science and neuroscience, whereas the standard philosophical approaches, particularly the correspondence theory, stemming from the ordinary perspective, seem to be pretty much worn out.

In Part Four, Jackendoff takes on the issues of rationality and intuition. He claims, and offers convincing arguments to this effect, that rational thought is only possible against the vast background of intuitive thinking. In effect, what we experience as rational thinking consists of thoughts linked to language – “rationality is intuition enhanced by language” (243). Jackendoff concludes with some comments on science, the arts and the perspectival perspective.

*A User’s Guide to Thought and Meaning* offers, as already stated, both important insights and an attempt at the big picture, but it also suggests many further lines of inquiry – exactly what good scientific writing is supposed to do. If you are a proponent of some of the standard views in the philosophy of language and mind being challenged in the book, read it and prepare to be converted – or at least prepare to be forced to reconsider some of your favorite dogmas.

JOŠKO ŽANIĆ

*Department of Linguistics*

*University of Zadar*