The slow explosion of speech

N. J. Enfield


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I f you could travel back to a time around the dawn of humankind, and if you encountered a people there whose only form of language was a list of one-word interjections like Yuck, Wow, Oops, Hey!, No, and Huh?, would you say that these people were of a different species, not quite human? Would they be like today’s apes that simply don’t have it in them to fully acquire a modern human language? Or would they be the same as us only less well equipped for communication, like the eighteenth-century man who is every bit human but happens not to have been born in a world with telephones? If the latter were true, then language would be more technology than biology, more something we build than something that grows. It’s clear that the earliest humans did not possess language as we know it. The question is whether this was because language as we know it hadn’t yet been invented.

In James R. Hurford’s towering account of our species’ path from being once without language to now being emphatically with it, he proposes that just such a monophrase language of the Yuck/Wow variety was an important early human achievement. And, Hurford argues, while our earliest forms of language had no grammatical rules by which words were combined to form sentences, they were far from primitive call systems. This doesn’t mean that those well-fashioned grunts would have had meanings as complex and as specific as some advocates have argued. The archaeologist Steven Mithen (in his book The Singing Neanderthal, 2005) speculates that the holistic messages that predated language might have meant things like “Go and hunt the hare I saw five minutes ago behind the stone at the top of the hill”. These “Flintstone-type examples”, laments Hurford, “give language evolution a bad name”. Hurford is a dyed-in-the-wool linguist and insists on being well informed about what it is that we are trying to explain. “You can’t understand the evolution of grammar”, he says, “without grasping something of the real complexity of grammar.” Accordingly, large chunks of this long book take the real complexity of grammar and almost bludgeon you with it.

Hurford’s long argument builds on the idea of a deeply social foundation for language. Much of his preceding book (The Origins of Meaning, reviewed in the TLS of September 12, 2008) was concerned with laying out the requisite cognitive infrastructure for acquiring and using language, including our species’ highly developed social cognition, with its stunning capacities for mind-reading, cooperation and teamwork, whether these be used for altruistic or Machiavellian ends. But there is a nagging puzzle for those who want to highlight the social side of language in evolution. The biologist Robin Dunbar made headlines in the 1990s with his proposal that language evolved so that we could gossip. It’s a compelling thesis when you actually look at it: as our social groups grew larger and our social lives more intense, we needed an efficient way to manage our increasingly tangled web of relationships, and as it turns out this is what we mostly use language for – grooming and gossip. But even linguists who are sympathetic to the idea (Hurford included) have never been quite convinced. If language were just a way of scratching each other, they reason,
why would it need to be so fancy, with all its declensions and conjugations, morphology and syntax, inverse systems and evidentials? Without quite saying that this is what he’s doing, Hurford lays the groundwork in this new book for a solution. He shows how the complexities of grammar could historically emerge from simple patterns of language use, in a second evolutionary track that runs parallel to our biological evolution. Even the core Subject–Predicate organization of sentences “comes not from thought, but from communication”. While the social side of language matters deeply to Hurford, there are good reasons why he has given the matter of grammatical structure some 800 pages of his undivided attention. One of these reasons is that grammar, or more specifically syntax, has for more than half a century held centre-stage in the science of language and in attempts to define what makes language special. One influential view has it that the critical innovation in our species is a mental faculty just for syntax, a specialized device in the brain for putting words together in productive ways. The philosopher and linguist Noam Chomsky has argued that this innovation had nothing at all to do with communication. Its initial utility was merely as a tool of private thought, and any usefulness that syntax was to have for communication would be merely a pleasing side-effect. On this point, and quite a few others, Hurford disagrees, and in doing so he is part of what is at least a major pendulum swing, and by some accounts a real paradigm shift, in current cognitive science. It is a shift towards the view that what is really special about language is not its formal properties of combination and recursion, but its functionality in the social world. Language is our tool for doing things socially, or as Hurford likes to put it, “doing things to other people”. The puzzle is how language as a tool for action becomes language as an abstract semiotic system.

In The Origins of Meaning, Hurford made the case that once humans had evolved their unique cognitive infrastructure for social interaction, this provided the selective pressures, as well as the social motivations, for opening our mouths. Without these social motivations, people wouldn’t have bothered to go public with language in the first place, regardless of what special devices they now had in their heads, and the emergence of language would never have got going. On this account, the Yuck/Wow people at the dawn of humankind already possessed the right cognitive capacities for learning any modern language. It’s just that history hadn’t begun yet, and nobody had developed actual languages for their children to learn and speak. The one-word system was a first giant leap, for to possess words alone, says Hurford, is already to possess language, and so to have found words was to have crossed a Rubicon. Once real words are in place – even just Yuck and Wow – the long historical, cultural process of language building can begin, in a second great phase of the evolution of language. The modern niceties of grammar can then “inevitably emerge”, as Hurford puts it, in individual languages, through well-documented historical processes of language change. He reviews at length and with care the ample evidence that modern grammatical devices such as case or agreement marking often have their origins in simple stand-alone words like nouns and verbs.

All this is part of Hurford’s tireless defence of the claim that language’s appearance in our species was gradual and continuous. “I do not envisage a discrete evolutionary jump between no-syntax and syntax.” A gradualist stance towards the evolution of a highly complex system is hardly radical. It is central in Darwin’s famous formulation: “If it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down”. This is, however, a puzzling bone of contention in recent skirmishes within professional linguistics. In statements that could be termed reactionary in the context of modern cognitive science, Chomsky, along with colleagues such as Robert Berwick at MIT, denies that a gradualist argument for the evolution of syntax is possible at all. Chomsky doesn’t engage with Hurford’s well-butressed gradualist case, yet has pronounced the work “irrelevant” anyway. Hurford holds course, submitting in this new book that “the evolution of the modern syntactic capacity seems less amazing than many linguists over the past fifty years have taken it to be”. Yes, there is a giant chasm between our linguistic capacities and those of even our closest evolutionary cousins. And the evidence is clear that, once fuelled by the emergence of syntax and its power of infinite expressivity, at some point perhaps not that long ago, language exploded on to the scene. Hurford’s simple contention is that this explosion is actually a gradual process when you view it up close.

Alongside his established gradualist stance, with this new book Hurford also offers a recapitulationist take on language evolution. In the spirit of Haeckel’s nineteenth-century fascination with the resemblance between our embryos and our ancestors, the claim is that if you look at how language develops in the individual’s lifespan, in particular during the child’s initial acquisition of language, what you see will resemble the way language developed in the course of the evolution of our species. After all, the path children take in acquiring their first language is a proven solution to the
puzzle of how to go from having no language at all to having a complete linguistic system of great size and complexity, all in a few years. Hurford suggests that the evolutionary path was a similar solution: first comes a raft of cognitive capacities and motivations for complex social interaction; then a one-word stage; then simple combinations of these in two-word utterances; then, slowly but surely, historical development and global diversification of complex language systems as we know them today.

The story is in line with an emerging trend in evolutionary approaches to language and communication, notably represented by the psychologist and linguist Michael Tomasello. Tomasello’s theory of the evolution of human communication draws on both infant development and research on primates to link the emergence of increasingly challenging social actions – requesting, helping and sharing – with increasingly challenging grammatical structures; structures that Tomasello refers to as “simple syntax”, “serious syntax” and “fancy syntax” respectively. Without explicitly linking his story to Tomasello’s, Hurford goes the extra mile to flesh out just what these distinct levels of complexity are, under what conditions they may be found, and how they can be historically linked.

Hurford’s scope is encyclopedic. The reference list alone runs to nearly a hundred pages, and this is not mere padding. Study after study is described and summarized, and it is almost 500 pages into this behemoth that Hurford declares that he has now “finished the stage-setting” for what the book is really about. He sets a new bar in interdisciplinary work, demanding to be read, and to be read carefully, but assessing the argument is not made easy. Like Doctor Aziz in Midnight’s Children with his perforated bed sheet, Hurford has become intimately acquainted with the object of his passion not by beholding it at once, in all its glory, but by accumulating a complete vision from all the parts, glimpse by glimpse, over weeks, months and years.

My hope now is that Hurford will stand back, and produce a nice precis of pamphlet size. The problem with this subject is that it sprawls. It demands a deep knowledge of too many literatures, and makes blood rush to clever people’s heads. While Hurford demonstrates that during his long retreat he has overcome these challenges and has indeed acquired a vision of the whole, the reader is not rewarded with the feeling that has now seen this single vision too. Nowhere do we find an executive summary of the overall argument or the central claims. I had hoped that a payoff of the author’s long and arduous journey would have been to save the reader from the same, but instead one has the feeling of being dragged through his every struggle, in a recapitulation that is all trees and no woods. Members of that unwilling majority of readers who do not study arguments in all their numerous, successive, slight steps will struggle to find a message to take home. My hope now is that Hurford will stand back, and produce a nice precis of pamphlet size.

Meanwhile, scientific work on the evolution of language continues to flourish. The truth is that we will never know for sure what our earliest ancestors said, let alone could potentially say, at the cusp of our species’ emergence. But here Hurford shows that it is not folly to try. Particularly important are his careful efforts to review and explain all the ways in which human language can be simpler than we normally think, from the “home sign” systems that emerge in households of Deaf children with hearing parents, to the pidgins and creoles of suddenly formed communities such as the plantation slave populations of the New World. And even simpler than any of these stripped-back languages are the monophrase systems that Hurford suggests were a bridge from no-language-at-all to language-as-we-know-it. For Hurford, if we could go back to our days as the Yuck/Wow people, it wouldn’t be quite right to say that our constrained form of language made us less than human, nor would we simply have been lacking a certain clever idea for upgrading our means of communication. If James Hurford’s recapitulationist argument is right, the truth is somewhere in between. It is that we were like babies.

**N. J. Enfield** is Professor of Ethnolinguistics at Radboud University Nijmegen and a senior staff scientist at the Max Planck Institute for Psycholinguistics in the Netherlands. His books include The Anatomy of Meaning, 2009, and, most recently, Dynamics of Human Diversity, which was published last year.