

## BREAKING THE MYTH OF UNIVERSAL GRAMMAR (AGAIN)

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EVANS, Vyvyan (2014): *The Language Myth: Why Language Is Not an Instinct*. Cambridge et al.: Cambridge University Press, 304 pp.

Vyvyan Evans (Bangor University, UK) is the author of several books on cognitive linguistics (hence CL), including a CL textbook (Evans — Green, 2006), an introduction into the Theory of Lexical Concepts and Cognitive Models (Evans, 2009), and a study on approaches to the concept of time in CL frameworks (Evans, 2013). Evans' latest publication is a work of popular science entitled *The Language Myth: Why Language Is Not an Instinct*. As the title (which is a pun on the title of Steven Pinker's (1994) pop-science bestseller, *The Language Instinct: How Mind Creates Language*) suggests, the book focuses the debunking of various “myths” associated with the Chomskyan approach to language.<sup>1</sup> However, it deals not only with Pinker's view of language as an instinct, but with the whole theoretical paradigm, to which Pinker belongs.

Evans avoids labelling this paradigm as Universal Grammar (UG), presumably because the term has a very long history, going back many centuries before Chomsky (who definitely does not use the term the traditional way, contrary to what he has claimed<sup>2</sup>). Evans chooses a novel label instead: language-as-instinct thesis.<sup>3</sup>

The debate on the UG and related topics has been under way for some 40 years now, while many texts<sup>4</sup> criticizing the Chomskyan standpoint from various perspectives have been published. Basically, what Evans does in this publication is that he gathers the counter-argumentation presented earlier, whether it has been widely accepted as definite disproof of UG or it is somehow curious, and he also adds some of the most recent findings that support the anti-nativist stance. He synthesises the evidence from various fields under the flag of usage-based approaches.<sup>5</sup>

Evans identifies six “submyths” that form a myth of language instinct. These submyths can be expressed by the following statements:<sup>6</sup>

- (1) Language is an exclusive human ability and as such is unrelated to any communication system in other animal species.
- (2) All languages share common features — an underlying UG.

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1 Where the word “Chomskyan” equals to “Rationalist”, “Nativist” or “Universalist”. The issue of what or whom the author actually means by saying “Chomskyan group” is discussed below.

2 See Thomas (2010).

3 Cf. Tomasello's (1995) term “Generative Grammar as Instinct Hypothesis”.

4 For summary of the dispute — as well as for an examples of anti-Chomskyan critique — see e.g. Tomasello (1995; 2003), Sampson (2005), Penke and Rosenbach (2007), Evans and Levinson (2009; 2010).

5 Evans uses a label “language-as-use thesis” (I will address it later).

6 (1–6) are shortened and slightly altered paraphrases of Evans' own formulations.

- (3) Language is an innate instinct. Children are born with a universal set of rules (i.e., UG) that allows them to easily acquire any language despite the “poverty of stimulus” they are exposed to during the acquisition process.
- (4) The human mind is modular and the faculty of language is one of the autonomous mind modules that emerged in humans in one evolutionary step.
- (5) There is a universal language of thought (“mentalese”) that is independent from the spoken languages.
- (6) As thought is independent from language, the way we think cannot be determined (or affected) by the language we use. In other words, there is no such phenomenon as linguistic relativity.

Evans looks into each myth in a separate chapter. At first, he briefly explains how and on what basis the claims associated with the particular myth are used, without going into much detail (Evans omits dealing with origins, sources and theoretical grounding of the alleged myths). Then he follows by gathering and presenting the counter-evidence, although due to the book’s genre and spatial limitations (three hundred pages) Evans does not discuss the evidence thoroughly. In the conclusion of every chapter, Evans offers an alternative explanation of the phenomena in question from the perspective of what he calls language-as-use thesis.

I am not going to discuss all the evidence presented by Evans, I will only underline the key points and some of the alternative explanations.

(1) Evans shows that the difference between human and non-human communicative systems is not substantial, it is plainly a matter of the degree of sophistication — with human language occupying the prominent position on this scale. He takes Hockett’s (1966) design features of language as a starting point to demonstrate (using evidence from biology) that what were once considered to be unique features of human language can actually be found in other species’ communicative systems, too. In particular, Evans focuses on recursion — famously claimed by Hauser, Chomsky and Fitch (2002) to be the single feature that marks the difference between human language and other species’ communicative systems. As the two most remarkable examples of counter-evidence for the only-human recursion, Evans presents the observation of recursive features in the waggle dances of bees and in starling songs.

From the language-as-use perspective, it is worth asking why human language is the most complex of the animal languages, rather than to ask what makes human language an exclusive system of communication.

(2) The issue of putative linguistic universals splits the linguists focusing on linguistic typology into two groups, sometimes referred to as the C-linguists (C as for Chomsky) and the D-linguists (D as for diversity).<sup>7</sup> Evans adopts a D-linguistics stance and refutes the very concept of linguistic universals, deeming it a useless abstract entity that can refer only to the vague and general truths about languages, since typological evidence has shown that there are no genuine absolute universals in the Chomskyan sense. Rather, linguists should turn their attention to the astounding

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<sup>7</sup> Evans and Levinson (2010). V. Evans, though, does not use those labels in his book.

diversity that languages display around the world. This claim has been most notably made by N. Evans and S. Levinson (2009; 2010), who articulated the D-linguistics paradigm. In this section of his book, V. Evans summarizes some of the evidence against absolute universals that can be found in Evans and Levinson (2009).

The nature of the argumentation used by D-linguistics against C-linguistics as presented here and in above mentioned works has two levels. One can be called “empirical”, and is the one where evidence for the non-existence of universally shared linguistic features is presented. The repertoire of those features is made up of an aggregate of various proposed UG elements. Since there is no agreement among proponents of UG regarding what exactly the features included in UG are (see discussion in Tomasello, 2007, and Wunderlich, 2007). For that reason, the evidence is discussed domain by domain: syntax, morphology, phonology etc.

The other level can be called “logical”. In order to be proven, UG must be tested as a hypothesis, which is in principle falsifiable. However, given the vast number of existing languages of which only a fraction has been described, it is practically impossible to investigate every one of them to find counter-evidence of an absolute universal. Furthermore, given that every single language that ever existed or will exist in the future must be included in the sample, falsifying the UG hypothesis is nonsense. “In terms of ‘good science’ test, [UG] makes very bad science indeed” (p. 79).

(3) It is generally agreed among opponents of the language-as-instincts thesis that the human linguistic capacity may well be partly innate, in the sense that there are likely to be some inborn psychological processes underlying language acquisition, some of those processes being even specific to the faculty of language. Evans makes this repeatedly clear throughout his book: “No one disputes that human children come into the world biologically prepared for language — from speech production apparatus, to information processing capacity, to memory storage, we are neurobiologically equipped to acquire spoken or signed language in a way no other species is” (p. 16). What is not tenable is the claim of the presence of pre-birth linguistic (grammatical) structures in the brain (i.e., the UG).

In this chapter, Evans in particular addresses Chomsky’s (1980) argument of the “poverty of stimulus”. Since the early 1990’s there has been extensive debate concerning this issue. However, it has in fact never been by any means generally accepted as a given fact (see Thomas (2002) for an overview of the development of this concept and Pullum and Scholz (2002) and Scholz and Pullum (2006) for examples of criticism of the poverty of the stimulus argument from various points of view). The core of Evans’ criticism presents evidence supporting the view that the lack of stimuli does not create a logical paradox but, in fact, offers an explanation of the language learning processes in young children. Following the CG approach<sup>8</sup> on the nature of mental representations of lexicon and grammatical relations and particularly the accounts of Bybee (2010) and Goldberg (2011) regarding frequency effects on the acquisition of usage-patterns, Evans (p. 105) states that “while Chomsky

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<sup>8</sup> Again, CG in a broad sense: encompassing Langackerian Cognitive Grammar as well as Construction Grammar.

assumes that absence of evidence provides no evidence, it may in fact be the case that children take absence of evidence for evidence of absence: children learn what not to say (and consequently what they should say), from what they don't hear".

(4) Concerning the issue of the human mind's modularity, Evans takes a brief historical detour to describe the modularity claim's connection to the initial stages of computer science and artificial intelligence and how it has become an integral part of the innateness argument. However, because the development in the neurosciences since then has been immense, the modular view of human cognition — including the faculty of language as an independent module — seems to be untenable at present. Evans focuses on the evolutionary aspects of the human language faculty and demonstrates how Chomsky's idea<sup>9</sup> that the emergence of the language module was the result of a sudden genetic mutation in one individual some 50 000 years ago (Chomsky, 2010) goes against recent evolutionary theories. As an alternative view on the evolution of language, Evans suggests the theory of co-evolution of language faculty and other brain functions that is incremental in nature, through the partial specializations and adaptation processes, where language faculty is never involved independently (Gibbs — van Orden, 2010).

(5) In the chapter focused on the issue of the language of thought (Fodor, 1975; 2008), Evans makes a brief introduction to the symbol grounding problem (Harnad, 1990) and points out that there is a vicious cycle underlying the premise of the universal, inborn language-independent symbolic system: the very question of the origin of the conceptual system remains unresolved. Evans describes how this assumption is associated with the mind-computer metaphor, similarly to the view of the mind as a modular system.

An alternative view does not need to resort to innateness, instead it conceives of the conceptual system as a result of human embodied experience: “[C]oncepts arise from intelligent bodies: our mental representations emulate the experience they are representations of” (p. 179). In particular, this approach is illustrated with Lakoff and Johnson's (1980) theory of conceptual metaphor.

(6) Unlike the other myths Evans deals with in his book, the myth of language independency on thought is not a direct construction found in the theoretical foundations of the language-as-instinct thesis. It is the result of the refusal of some sort of argumentation in the long-time dispute regarding the issue of linguistic relativity, and as such, this myth is rather an “anti-myth” in essence. Since the early 1990's, much attention has been drawn to the empirical evidence supporting the idea

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9 Although Evans leaves it out, there is an implicit ideological aspect underlying the Chomskyan conception of language faculty that, eventually, makes universalism project be caught in its own trap: “Ultimately, the central idealizations of the theory serve a political-ideological purpose rather than any recognizable scientific goal. Having linked language to biology, Chomsky must bracket out all forms of variation from his model in order to sustain the vision of human equality” (Hutton, 2010, p. 348). Otherwise, in the view of language faculty emergence as an evolutionary fixed, single “Great Leap Forward”, any sign of linguistic diversity could be proof of exaptation of language faculty in part of the species, and thus the evolutionary intra-species inequality.

of linguistic relativity which had been before virtually expelled from the serious linguistic discourse. This renaissance of the research in the field of language and cognition interrelations has touched many cognitive domains and Evans mentions a variety of studies with special respect to the colour categorization. Evans revises the famous case of universal basic colour terms (Berlin — Kay, 1969) that for a long time has been claimed to disprove the Sapir-Whorf hypothesis in the colour domain. Firstly, Evans questions the reliability of the original research and suggests that — among other flaws — there might have been an ethnocentric bias in the collection and analysis of the cross-linguistic data. Subsequently, direct evidence refuting colour universality is presented — a study (Levinson, 2000) of Yéli Dnye, a language isolate that lacks the universal colour terms claimed by Berlin and Kay.

The neo-Whorfian research, even though it has offered rich evidence of language affecting non-linguistic cognitive processes in speakers of various languages, remains irrelevant for language-as-instinct proponents — Evans illustrates this with quotations from Pinker (2007). To be convincing, the linguistic relativity research should apply “methods that demonstrate that systematic differences between two languages influence their speakers at the automatic level of perceptual processing, before language comes on line, and before, even, subjects are consciously aware of what they are perceiving” (p. 214).

As an example of such research, Evans presents the findings of Thierry et al. (2009) who proved, using the event-related-potential method (ERP) which allows for controlling subjects’ reactions in a preattentive stage, that there indeed are cross-linguistic differences in colour perception in speakers of languages that categorize colour differently, and those cognitive differences are not related to the language processing and are not even conscious.

By language-as-use thesis Evans does not mean only usage-based theory in the narrow sense, i.e., the approach represented in particular by Joan Bybee (2010), although it has a central position in the broader theoretical complex<sup>10</sup> that Evans presents. As we have seen, another key facet of language-as-use thesis is represented by Michael Tomasello and his usage-based approach to language acquisition (Tomasello, 2003). Another aspect of the language-as-use thesis is evolutionary: the view of the emergence of language as closely related to the development of other aspects of human social behaviour within the adaptation processes is held for example by Enfield and Levinson (2006). Also, Evans’ position fits the framework of Beckner et al. (2009) who approach language as a complex adaptive system where the grammatical structures emerge through patterns of language usage and their interplay with patterns of historic change, patterns of cognitive processes and social interaction. Evans also incorporates into the usage-based theory complex Cognitive Linguistics and Construction Grammar. Such a broadly defined approach corresponds with the following description by P. Ibbotson (2013, p. 12):

Usage-based theories of representation see language as a complex adaptive system; the interaction between cognition and use. Findings from language acquisition

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<sup>10</sup> For an overview of this complex see Ibbotson (2013).

research, typology, and psycholinguistics are converging on the idea that language representations are fundamentally built out of use and generalizations over those usage events. Interestingly, none of the fundamental mechanisms of the usage-based approach are required to be a language-specific adaptation.

It is clear that not everything that Evans presents as counter-evidence will be accepted by the usage-based linguists without any doubt. Instead of evaluating the reliability of the evidence, let us focus on the more general questions that come to mind after reading Evans' book.

Firstly, it is not quite clear on what basis Evans distinguishes the six myths. Why exactly these six? Myths (1-5) surely belong to the foundations of the language-as-instinct thesis while myth (6) is not really anything that Chomskyan linguists are concerned with.

Also referring to the "language-as-instinct crowd", as Evans often does, might seem somewhat overgeneralizing even with respect to the simplifying pop-science genre. This "crowd" is rather a disparate group reflecting the development of Chomskyan linguistics over the past 50 years.

Evans also, in my opinion, does not sufficiently emphasize the fact that the entire dispute he is portraying in his book is virtually discrete in its nature. While "empiricist" linguists search for the explanations of linguistic reality based on the testing of hypotheses — in short, they rely on the inductive methods — the Chomskyan premise is different. "The UG hypothesis should fairly be seen as a general idea that directs scientific investigation rather than a specific hypothesis that can be refuted on the basis of particular empirical evidence" (Wunderlich, 2007, p. 179). As mentioned by Tomasello (1995, pp. 134-135), the final goal of scientific effort for Chomskyan has been finding the perfect mathematical model to capture language description based on the *a priori* claims about language.

Although Evans does not explicitly mention this fundamental discrepancy between the two approaches, what he does very well is to pinpoint the instances when instead of a simpler or empirically provable explanation, a highly speculative claim is used (usually that of innateness or universality), serving only to fit a theoretical framework that language-as-instinct proponents follow, often ignoring up-to-date findings. "In many ways, the new view, the language-as-use thesis, is liberating, removing the shackles of the past. The old Hegelian argument, that language is innate, a consequence of a language learning organ, explains away language acquisition using smoke and mirrors: let there be language!" (p. 132).

As such, the language-as-instinct thesis is not, of course, strictly speaking a "thesis", at least it is not with respect to the "submyths" discussed by Evans: it is rather a continuum of various approaches within Chomskyan linguistics and a collection of particular statements by various authors — and there could hardly be found a Chomskyan that would identify with this "thesis" fully.

On the other hand, what Evans is fighting with is not a straw-man — a distorted image of the enemy created by Evans, as one could see it, for we all know that no one believes this conception any more. In fact, this myth is created by those who are not aware of the current state-of-the-art. As Evans shows, plain summarization of the



evidence against language-as-instinct point of view still has its important purpose of raising awareness among lay public as well as social scientists in general (first of all, the novice linguistic students). That is because, at least in the UK, as Evans shows, there still appear basic and introductory textbooks that present some of the myths as truths. “University students are regularly told that language is innate, that language is incommensurable with non-human communication systems and that all languages are essentially English-like” (p. 20; emphasis in the original).

In short, *The Language Myth* is a witty and accessibly written book based on a blunt and decisive refusal of the UG point of view. Nevertheless, Evans’ argumentation is sound and is distant from cheap defamation. The *Language Myth* convincingly shows that it is still worthwhile to raise the awareness among non-linguists and general public that UG is not a generally accepted idea and that there are alternative approaches that conceive of language not as an innate instinct, but as a learned social and cultural skill exhibiting immense diversity.

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