

Another look at the Universal Grammar Hypothesis: Review of *The Language Myth* by Vyvyan Evans¹

Adele E. Goldberg

It is important to recognize that *The Language Myth* (TLM) is not a research monograph, but is instead aimed at a popular audience, and therefore it should be judged in this light. Popular books necessarily oversimplify certain issues, on pain of not being very popular, yet TLM does satisfy its intended purpose; it demonstrates, in a clear and engaging way, that the existence of a Universal Grammar, involving structure or syntactic knowledge that is unique to language and not learned, is quite far from established fact (cf. also e.g., Ambridge, Pine & Lieven 2014; Christiansen & Chater 2008; Evans and Levinson 2009; Goldberg 2013; Everett 2012; Hurford 2012; Elman et al. 1995; Tomasello 2004; Sampson 2005).

The position that TLM counters is no straw man, as the following easy-to-find quotes make clear (boldface added):

1. “Two facts about language learning are indisputable. First, only a human baby, but not her pet kitten, can learn a language. It is clear, then, that there must be some element in our biology that accounts for this unique ability. Chomsky’s Universal Grammar (UG), **an innate form of knowledge specific to language**, is a concrete theory of what this ability is. “ (Yang 2004)
2. “Generative linguistic theory stands on the hypothesis that **grammar cannot be acquired solely on the basis of an analysis of the input**, but depends, in addition, on **innate structure** within the learner to guide the process of acquisition.” (Lidz, Waxman, and Freedman 2003).
3. “the most controversial claim of Noam Chomsky’s is that **Language is also an instinct. Many parts of Language are built in, or innate. Much of Language is an ability hard-wired into our brains by our genes....There are very good reasons to believe, ...that a human faculty for Language (perhaps in the form of a “Language organ” in the brain) is innate. We call this facility *Universal Grammar* (or UG).**” (Carnie 2013)

Many of the familiar arguments in favor of a Universal Grammar are addressed and countered in TLM, and the book admirably weaves together discussions drawn from research in linguistics, psychology, neuroscience, philosophy, and anthropology. Evans agrees that human language is distinct from animal communication in many ways, even while he draws certain parallels between them (Chapter 2). While it follows from this generally agreed-upon conclusion that humans’ general *capacity* for language is in some way unique to our species (Adger 2015:77 and [1] above), it simply does not follow that

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any knowledge or structure that is specific to language need be “innate.” Instead, a combination of *prerequisites* for language may be required, prerequisites that need not themselves be specific to language and which may interact with one another and the environment in complicated ways (Chapter 4). This more subtle perspective concerning how phenotypes relate to genotypes has much evidence in its favor, and is, in fact, uncontroversial within biology generally (see Blumberg, 2005 for a popular overview).

Evans addresses the issue of whether there exists evidence of provable (i.e., falsifiable) language universals in Chapter 3. Here he briefly surveys a range of work on absolute and implicational (i.e., “if a language has X, then it has Y”) universals, and covers topics ranging from phonology to syntax in clear and jargon-free prose. He concludes that falsifiable language universals are relatively rare and are typically explicable in terms of the functional pressures of communication as well as domain-general constraints.

Chapter 4 focuses on language acquisition, emphasizing the role of statistics in the input, as well as the functions of constructions that are learned. This chapter also reviews some important evidence that human “cultural-intelligence” serves as a key and uniquely human prerequisite for language (also Chapter 8; Hermann et al. 2007).

Chapter 5 discusses on the neural underpinnings of language, emphasizing arguments against a modular linguistic system. Here it may be worth pointing out that even if there do exist areas in the typically developed adult brain that are devoted to language (as argued by, Fedorenko et al. 2011), it would not provide evidence in favor of the Universal Grammar Hypothesis (cf. also Bates 1993). For example, no one believes that written language is unlearned or innate, and yet there seems to be an area of the visual cortex that selectively responds to written words (Dehaene & Cohen 2011).

The notion that meaning can be captured by discrete, universal, possibly innate symbols (*Mentalese*) is countered in Chapter 6 with the perspective that our concepts are instead grounded by our own real and imagined experiences in the world (see also Bergen 2012 for a very readable introduction). The following chapter (7) reviews evidence for the idea that language, as part of our experience, can shape our concepts and even our perceptions in subtle but detectable ways.

TLM paints generative grammar in quite broad strokes, and occasionally, in a regrettably dismissive tone. Researchers working within the generative paradigm, broadly construed, take a wide range of views on what sorts of knowledge or structure may be part of Universal Grammar (e.g., Kayne 1994; Hauser, Chomsky & Fitch 2002). Ray Jackendoff is mentioned as if he upheld a strong version of the Universal Grammar Hypothesis, when in fact over the last two decades he has championed a move quite far away from mainstream generative grammar, and much more in the direction that Evans defends (e.g., Culicover & Jackendoff 2005; see Goldberg 1996). Steven Pinker is also portrayed as if his stance in *The Language Instinct* has been unaltered, when in fact he too has moved away from the Chomskian perspective in many respects (e.g., Pinker and Jackendoff 2005; Pinker 2014/1989). Because of its broad-brush approach, TLM has understandably raised some hackles; there is in fact a bit of “locker room towel-snapping” towards those who have taken contrary positions (<https://ronbc2.wordpress.com/2014/09/23/the-language-myth/>), but in most places, TLM strives for a light-hearted tone (with much discussion of *supermodels kissing window washers*).

As shorthand for his own perspective, Evans uses the phrase “language-as-use.” Although I agree with many of the conclusions that Evans draws, and I do believe language use is of central importance, we “usage-based” researchers owe an explanation of how and why languages are used the way they are. Some of these issues are discussed in the final chapter of TLM, but there is much more work to be done. As Liz Bates used to say, language is a new machine made out of old parts (Bates, 1993; cf. also Ullman 2015). A key goal, as Evans views it and I agree, is to explain exactly what these old parts are and how they combine to give rise to our impressive, complex, emergent knowledge of language.

Nonetheless, the notion that humans possess innate knowledge that is specific to language has been widely taken for granted within linguistics and has captured the popular imagination. It is time to rethink this fundamental assumption, and *The Language Myth* serves as a readable entry into many of the relevant issues.

Psychology Department, Princeton University, Princeton NJ 08544
adele@princeton.edu

- AMBRIDGE, BEN, JULIAN M. PINE, AND ELENA VM LIEVEN. "Child language acquisition: Why universal grammar doesn't help." *Language* 90.3 (2014): e53-e90.
- BATES, E. (1993). Modularity, domain specificity and the development of language. *Discussions in Neuroscience*, 10(1), 136-148.
- BERGEN, BENJAMIN. 2012. *Louder than words: the new science of how the mind makes meaning*. Basic Books.
- BLUMBERG, MARK. 2005. *Basic Instinct: the genesis of behavior*. Thunder's Mouth Press. New York.
- CARNIE, ANDREW. *Syntax: A generative introduction*. John Wiley & Sons, 2013.
- CHRISTIANSEN, MORTEN H., AND NICK CHATER. "Language as shaped by the brain." *Behavioral and brain sciences* 31.05 (2008): 489-509.
- COHEN, L., LEHÉRICY, S., CHOCHON, F., LEMER, C., RIVAUD, S., & DEHAENE, S. (2002). Language-specific tuning of visual cortex? Functional properties of the Visual Word Form Area. *Brain*, 125(5), 1054-1069.
- DEHAENE, S., & COHEN, L. (2011). The unique role of the visual word form area in reading. *Trends in cognitive sciences*, 15(6), 254-262.
- EVANS, N., & LEVINSON, S. C. (2009). The myth of language universals: Language diversity and its importance for cognitive science. *Behavioral and brain sciences*, 32(05), 429-448.
- EVERETT, DANIEL L. 2012. *Language: The cultural tool*. Vintage Books,
- FEDORENKO, E., BEHR, M. K., & KANWISHER, N. (2011). Functional specificity for high-level linguistic processing in the human brain. *Proceedings of the National Academy of Sciences*, 108(39), 16428-16433.
- GOLDBERG, A. E. (2013). Substantive learning bias or an effect of familiarity? *Cognition*, 127(3), 420-426.
- GOLDBERG, A. E. (1996). Jackendoff and construction-based grammar. *Cognitive Linguistics (includes Cognitive Linguistic Bibliography)*, 7(1), 3-20.

- HERRMANN, E., CALL, J., HERNÁNDEZ-LLOREDA, M. V., HARE, B., & TOMASELLO, M. (2007). Humans have evolved specialized skills of social cognition: the cultural intelligence hypothesis. *science*, 317(5843), 1360-1366.
- HURFORD, JAMES R. 2012. *The origins of grammar: Language in the light of evolution*. Oxford: Oxford University Press. Jackendoff,
- KAYNE, RICHARD. 1994. *The Antisymmetry of Syntax*. MIT Press.
- LIDZ, J., WAXMAN, S., & FREEDMAN, J. (2003). What infants know about syntax but couldn't have learned: Experimental evidence for syntactic structure at 18 months. *Cognition*, 89(2003), 295–303. doi:10.1016/S0010-0277(03)00116-1
- PINKER, STEVEN. *The language instinct: The new science of language and mind*. Vol. 7529. Penguin UK, 1994.
- PINKER, STEVEN & JACKENDOFF, R. (2005). The faculty of language: what's special about it? *Cognition*, 95(2), 201-236.
- PINKER, STEVEN (2013). The secret life of verbs. In *Learnability and cognition: The acquisition of argument structure*. MIT press.
- SAMPSON, GEOFFREY. *The 'Language Instinct' Debate: Revised Edition*. A&C Black, 2005.
- SCHWARTZ, BONNIE D. "The second language instinct." *Lingua* 106.1 (1998): 133-160.
- TOMASELLO, MICHAEL. "Language is not an instinct." *Cognitive development* 10.1 (1995): 131-156.
- ULLMAN, M. T. (2015). *The Declarative / Procedural Model : A Neurobiological Model of Language*. *Neurobiology of Language*. Elsevier Inc.
- YANG, C. D. (2004). Universal Grammar, statistics or both? *Trends in Cognitive Sciences*, 8(10), 451–456.