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Multilingualism everywhere

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If one asks how many languages there are, one can imagine at least three answers: one, over six billion, or 7,358.

The first answer supposes that there is one language, Human, which is radically different from the communication systems found in other species, and that differences between Japanese and English speakers are insignificant. This might be the view of a visitor from another planet, who sees differences between humans and chimpanzees but not between people from Rome and Madrid.

At the other extreme, the second answer recognizes the deep individuality of languages. A person's language is unique to that individual. As a result, I know within two seconds which of my two daughters is on the telephone. There are as many languages as people, perhaps more, if people operate with more than one system.

The third view deals with languages like Japanese, German and Quechua and points to a number provided by organizations like SIL International, which seeks to count such languages; the 16th edition of their publication *Ethnologue*, published in 2009 (Lewis 2009), found 7,358 languages, an increase over the 6,912 of the 2005 15th edition (Gordon 2005). There are many such languages but far fewer than the number of people, because some languages, in this sense, have millions of speakers.

The first two answers have a basis in biology. To say that there is one language, Human, is to count the objects that conform to the PRINCIPLES of the human linguistic genotype (or "Universal Grammar", UG), namely one, and to disregard variation between English and German and ignore change from Old English to Middle English. Furthermore, saying that there are over six billion counts the objects defined by the principles AND PARAMETERS of UG (just 40 independent binary parameters yield over a trillion grammars) and recognizes that there are at least as many languages as there are people, seeing multilingualism everywhere. This is the "universal bilingualism" of Roeper (1999). On the other hand, the third answer, while invoking a familiar notion of languages, has no basis in biology and involves many tricky, unresolvable questions about whether Norwegian and Swedish are truly different languages or merely dialects like Australian and Yorkshire English, and whether it is appropriate to lump the language systems found in China into one monolithic "Chinese".

Jürgen Meisel seeks to draw together work on acquisition and change, an enterprise that I endorse strongly: "Findings from diachronic studies put issues on the research agenda of acquisition studies" (p. 140). However, he argues here that "language acquisition in multilingual settings may be a more plausible source of grammatical reanalysis than monolingual first language development" (p. 121) and works with the third, *Ethnologue* view of languages; all of his examples concern speakers of languages like "German" interacting with speakers of "Turkish", etc. He then proceeds to a blanket statement, that monolingual first language acquisition does not suffice to explain changes and that bilingualism is a necessary condition for change (p. 122). He would bet that any changes affecting a relatively isolated language like Icelandic will, on careful inspection, be found to reflect influence by a separate language, for example, the change of OV to VO word order that affected Icelandic in the 19th century. That is Meisel's central claim and the focus of my response. I argue that there is no such thing as monolingual first language acquisition; children are always exposed to different systems, because languages are peculiar to individuals, adopting the second answer to our opening question. The ingredients for language change are ALWAYS present.

The usual explanatory schema for language acquisition is in (1): children are exposed to primary linguistic data (PLD) and, as a result, their linguistic genotype develops into a linguistic phenotype, an internal grammar or I-language that characterizes a person's mature linguistic capacity.

(1) PLD (UG → grammar)

The PRIMARY linguistic data are a subset of what a child hears, perhaps a very small subset (Lightfoot, 1994), and constitute structurally simple and robust data of a kind that any child is likely to hear. They do not include data about what does not occur, paraphrase relations, information about the scope of quantifiers, and complex structures with multiple embeddings; such data are secondary data, characterized by mature grammars but they are not the input for the acquisition of grammars. No two children hear the same PLD, because there is too much variation in ambient speech. If the PLD differ significantly, they will trigger different grammars. Meisel's view is that PLD differ significantly enough to trigger new grammars only under conditions of bilingualism, under his narrow notion of what constitutes a language.

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First, it is important to recognize that the model of (1) shows a grammar growing in an individual under exposure to external language; the child has access to external language, understands speech to some extent and, under one view, identifies structural cues that are required to analyze the ambient speech. External language is the source of the cues in the emerging I-language or grammar. This is entirely an individual experience and some grammar grows in a child whatever the PLD are, short of no experience whatsoever with other human beings. The PLD may be very different from what the child's mother was exposed to, for example, in a deaf child born to hearing parents, or a Rumanian child adopted by French-speaking parents living in a mostly French-speaking community. If the child is raised in a diverse household, the PLD may be drawn from quite different sources. There have been studies of language acquisition under such circumstances and there is always some grammar growing and the grammar grows independently of the grammars of the child's models; the child has no direct access to those grammars but only to speech produced by the models. Likewise for a child raised in a relatively homogeneous environment and exposed to PLD similar to those that the mother was exposed to a generation earlier. Language acquisition is a discontinuous process, under this view, and there is no "transmission" from one generation to another of grammars or of PLD.

If there is no transmission, there can be no "transmission failure". Meisel's paper is full of references to "transmission failure", "unsuccessful acquisition", "incomplete acquisition", "acquisition failure", and even "the wrong grammar", but such phrases refer to children acquiring different grammars from somebody else and there is nothing wrong or unsuccessful and no failure.

Second, every child acquires a grammar, or perhaps more than one grammar, and linguists are interested in how different grammars are acquired under exposure to different PLD. Comparative linguists study how different grammars arise in different speech communities and historical linguists working from this perspective study how different grammars arise when the PLD have changed over time within a speech community. Linguists are particularly interested in cases where grammars are acquired under conditions of "mixed input", where the PLD include data from different sources (Hudson Kam & Newport, 2005). The language of the deaf has been a rich source of insight, because the vast majority of deaf children are born into hearing homes and are exposed first to a primitive kind of home sign learned by the hearing parents as a way of communicating with their child; this constitutes a pidgin and children inevitably attain a grammar, a capacity, that goes far beyond what they experience. The development of Nicaraguan Sign Language has recently offered a spectacular new way of investigating these matters (Lightfoot, 2006, section 7.2; Senghas, Kita & Özyürek, 2004).

Language change undoubtedly occurs when children are exposed to PLD influenced by another language in Meisel's sense. There is good reason to believe, for example, that Middle English morphology was influenced by English–Scandinavian bilingualism (O'Neil, 1978) and that this had consequences for syntactic operations (Lightfoot, 2006). Meisel provides other examples. However, given that no two children have the same PLD and that multilingualism is everywhere, it is unnecessarily restrictive to stipulate that grammatical change takes place ONLY under the narrow view of bilingualism adopted by Meisel.

Even if grammatical change did take place only under such conditions, there would be no explanation until it was shown how the PLD had changed in such a way as to trigger a new grammar. Furthermore, where there are properties of self-organization (e.g. Lightfoot, 2006; Singleton & Newport, 2004), they would be explained by properties of the linguistic genotype (Universal Grammar) and not by properties of the ambient speech.

Meisel says (p. 121) that "changing frequencies in use or exposure to data containing ambiguous or even contradictory evidence are unlikely to suffice as causes" for a new grammar to emerge. He does not tell us why it should only be data from a separate language that would have this effect, when "children receive sustained input from second language learners" (p. 121). He seems to think that the alternative is one where "the language learning children interpret the data differently" in a reanalysis of ambiguous data rather than children being exposed to new data. However, it always takes NEW data, not ambiguous data, to trigger a new grammar and Meisel (p. 128) is right to reject the notion of UG biases explaining changes in the absence of new data (Roberts, 1998; van Gelderen, 2004).

Meisel offers analyses of new grammars emerging when children are exposed to PLD from second language learners where "second languages" are taken to be sociologically ill-defined notions like German and Turkish. I have not commented here on those analyses, focusing instead on his central claim about change taking place only in bilingual contexts. Meisel has no basis for denying that new grammars may emerge under other circumstances and offers no reason not to take a broader view of what is meant by languages. Indeed, when English developed a new set of inflectional elements, so-called modal auxiliaries that are not verbs (Lightfoot, 2006, chapter 5), it wasn't because another influential language had them; they were a unique innovation in English with no parallel in any European language.

Yes, new languages only emerge in bilingual, indeed multilingual, contexts but ALL language is acquired

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in multilingual contexts. The variation involved is the essential ingredient for change but that tells us nothing about why particular changes happen. We understand change insofar as we can relate new PLD to the resulting new grammars in the schema of (1); that is the fundamental empirical matter. Sometimes new PLD are drawn from a separate language in Meisel's *Ethnologue* sense, but not always. Establishing what are the critical PLD for the development of a new grammar is what makes work on language change of interest to people studying language variation and acquisition, and it is not productive to invoke a limitation that has no basis in biology.

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