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Words Leave No Fossils: Positing the Spread of Indo-European Languages Across Neolithic Europe

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Various disciplines of anthropology generally accept that the Indo-European language spread throughout Europe some time after the Mesolithic era; how and when this happened is consistently debated, however. Archaeological and archaeogenetic theories on these details are wide and varied, including Gimbutas' kurgan invasions, Renfrew's peer polity, Renfrew and Bellwood's first farmers, Adams and Otte's climactic change, Robb's sociological and Cavalli-Sforza's genetic studies. Most of these give only cursory glances to linguistic theories of the methods of language diffusion and dispersal, or in the case of memetics, have attempted to combine the two divergent fields. An analysis of these theories leads me to infer that, indeed, language spreads because it is contagious, and that, following Sapir-Whorf, humans are limited in their ability to absorb cultural innovations until and unless they have the words for them.

ARCHAEOLOGICAL THEORIES OF LANGUAGE SPREAD

Since English jurist William Jones wondered in 1786 whether the similarities between a hand-full of languages meant they had “sprung from some common source, which, perhaps, no longer exists” (Bellwood 2005:201) there has existed a lively debate surrounding the origin and cause of the spread of Indo-European (IE) languages.

*Did Chariots Bring Indo-European To Europe? Marija Gimbutas*

Although first stated by Gordon Childe in 1926 (Bellwood 2005), archaeologist Marija Gimbutas was perhaps the most vocal proponent of an origin source of IE in the Pontic steppes in Ukraine and southern Russia. She supposed IE speaking populations spread by the migration of patriarchal horse-riding pastoralists (Bellwood 2005) between 4500 and 2500 BCE, imposing their language on the supposed Goddess-centered Neolithic communities they came across. According to Bellwood, this supposed the “elite
“dominance” (2005:203) of PIE to impose their language on extant populations. Bellwood relates that Renfrew drove “the fundamental nail in the coffin of the Pontic steppes hypothesis” (2005:204) with the simple question if there were conquering pastoralists from kurgan-burial cultures of the steppes where were the widespread archaeological traces of the culture in Europe?

Colin Renfrew, Peter Bellwood and the Farmers From Anatolia

Peter Bellwood, in his work First Farmers: The Origins of Agricultural Societies (2005) discusses a phylogenetic time frame mentioned favoring Renfrew’s theory that IE advanced hand-in-hand with the spread of agriculturalists; he places the initial period when farmers spread from Anatolia into Greece from about 7000 to 6500 BCE. (Bellwood 2005) Renfrew’s theory, however, has it self come under scrutiny in recent research, according to Jonathan Adams and Marcel Otte (1999). In Current Anthropology they state that “The genetic evidence from the ‘farming wave’ has been disputed however, on the grounds that other (earlier or later) population movements could have followed the same track.” (1999:NP) They continue “The possibility that the initial dispersal event of the Indo-European languages involved not Neolithic farmers nor bronze-age warriors, but Mesolithic hunter-gatherers has been mentioned briefly by several authors,” (Adams and Otte 1999:73) including Colin Renfrew himself in 1987. Bellwood does not address the possibility of similarities between extant Mesolithic and Neolithic European languages and IE.

Adams and Otte and Climate Change

Johanna Nichols, in a 1997 article in the Annual Review of Anthropology, described a linguistic spread zone, an area of low-density population where a single language or family occupies a large range, where language diversity is reduced by language shift and spreading. In times of distressed economic circumstances, populations in spread zones are less concerned with dialectical variation and find their language loyalty weakened in their endeavor simply to survive. Adams and Otte outline a theory that languages and populations may have spread due to climate instability. As IE waves came through Europe, they could have “gathered up” the genetic and linguistic
remnants of smaller populations. This gathering up may account for the extinction of several smaller IE languages, the genetic east-west and north-south gradients, and “some of the differences between the present day branches of the IE languages.” (Adams and Otte 1999:74)

**Cavalli-Sforza and Waves of Advance**

“Most patterns found in the analysis of human living populations are likely to be consequences of demographic expansions … During such expansions, both genes and languages are spread to potentially vast areas.” (Cavalli-Sforza 1997:7719) His genetic research indicates a slow model of advance of the peoples associated first with farming in south-eastern Europe and the fertile crescent – a “wave” that may have taken place a mere 2 kilometers at a time. This necessarily assumes that the language followed the genetics. Marek Zvelebil notes that many of the first Neolithic farmers in Europe, especially those in Northern Europe, were foragers turned farmer, and that their genes, language and culture were not the same, nor were they of the same descent. Researchers cannot prove that culture and genetics go hand in hand, although genetics certainly makes some social behaviors and organizations more likely.

**John Robb – Socialization as the Means of Linguistic Advance**

John Robb states the problem clearly in his article A Social History of European Languages: most work done on the prehistory of the IE languages has been in the examination of phylogenetic evolution, or in comparisons of prehistoric society and the appearance of similar material culture. He looks at IE spread through sociolinguistic processes – even though “surprisingly, perhaps, linguists currently have little understanding of the exact causes of language change.” (Akmajian, Demers, Farmer and Harnish 1998:316) It is by ignoring the origin question and with a focus on “how” that Robb presents an alternative view the spread of IE language. Kristian Kristiansen proposes that the international networks created during the Bronze Age and the appearance of the language at the same time are “in accordance with John Robb’s model for a social prehistory of European languages” (Kristiansen 2005:687) and that
they seem to reinforce Renfrew's earlier assertions of innovation – including language – as a result of peer polity interactions.

**HOW LANGUAGES SPREAD AND CHANGE**

The ephemeral nature of concepts makes them extremely difficult to trace archaeologically or anthropologically. Our best efforts in this regard then can be to make suppositions based on theories of language dispersal, diffusion and spread, which would have been necessary for the dispersal of complex concepts. “Language ... responds not only to ethnicity but to political, economic and cultural factors as well.” (Robb 1993: 748) “Factors important over archaeological time are likely to be different and unexpected from those important (or observable) in ethnographic time.” (Robb 1991:291) Remembering that “language change is normal,” (Daniels 1998:52) an examination of language spread processes may aid in the understanding of how IE became the parent language of Europe.

*Migration*

“Henceforward, lines of interpretation should (among other things) be based upon the recognition that people traveled and migrated throughout history in smaller and larger groups and for various reasons with various historical consequences that we need to study and learn more about.” (Kristiansen 2005:688) Robb's assertion is that, even after lengthy examination, the areas where people spoke IE languages, and from which they originated, are conjecture. (Robb 1993) A good portion of the uncertainty stems from a lack of knowledge about the nature of languages spoken in the areas into which IE spread. Not all languages disappeared with the advent of IE; much later dates for the existence of non-IE languages including Basque, Estonian, Etruscan and Sumerian exist in the historic record. (Robb 1993: 750)

Language is a cultural trait. Traits can be passed along vertically, as from parent to child, or horizontally, as from the interaction of different individuals or groups. (Holden and Shennan 2005) Phylogenetic models of cultural traits, including language, received
criticism because neighboring groups may or may not accept the incoming element; more likely is the possibility and eventuality that the exchange leads to convergence and even fusion. (Holden and Shennan 2005: 13) Paleolithic and Mesolithic groups lived at much smaller densities, and were more widely dispersed, than later groups. Contact with other groups would have been essential for survival, for trade, and as “ecological insurance against shortfalls.” (Robb 1993: 750) In these episodes of contact, where one group of hunter-gatherers works to the edges of their territory, languages would touch and overlap one another.

**Dialectics**

Perhaps the migration has no great effect – Robb points out hunter-gatherer languages “sometimes form dialect continuums.” (Robb 1993: 751) The most common range of dialects is geographic, although other arrangements are possible. This migration of languages, rather than people, would overlap in areas where groups interact with one another. In this kind of progression, the last dialect is so far removed from the original language as to be almost mutually unintelligible, yet still from the same linguistic stock.

**Trade and Cooperation**

Robb postulates that the greater increase in population density due to agriculture curbed groups' mobility (1993: 751), and long-distance trade among groups would then have been negotiated through immediate neighbors. For those who chose instead to travel for trade, or for those groups whose languages were not dialects of each other, a new form of communication could have developed in the form of pidgins and creoles, what Robb refers to as “regional exchange languages.” (Robb 1993: 753) Pidgins form between peoples who do not share a common language, but who want or need to communicate with each other, most often for trade. Hunters and gatherers had little use for words supportive of relative value forming the basis for trade of subsistence or prestige goods, since they depended on use value and symbolic value of items. It was with sedentism and more complex societies that objects gained relative value, and the spread of the language of societies with these concepts influenced sparsely populated surrounding foraging societies.
Stratification and Language Prestige

In areas where one language takes precedence in exchange over another without the development of pidgins and creoles (perhaps they are sufficiently similar to be mutually intelligible), language prestige develops, making them ranked by status. (Robb 1993) Societal bilingualism, then, allows the speaking of both languages by the population, with the prestige language used in elite circumstances – trade, inter-group contact, ritual performance.

Ethnogenesis

“Languages are intimately related to the societies and individuals who use them.” (Daniels 1998: 54) Robb points to the formation of initially small and sedentary insular communities with a rising population density and postulates ethnogenesis, the process by which a group comes to see themselves as ethnically distinct from other groups. (Robb 1993) This new means of identification sets the stage for the adoption of a dialect or language as a marker of their uniqueness. This process may well have solidified previously transient language usage in groups to make their communication as sedentary as their subsistence methods.

Contagion: Language as the Original Meme

Language is contagious. When you cannot express “don’t kill me” or “I’m hungry” to another in a language the other can understand, it becomes imperative to learn their language and pass it along the continuum to others. Language as a viral contagion should be obvious to anyone who is familiar with the memes “all your base are belong to us” or the insanely contagious addiction to “Dragostea din tei” - the Numa Numa dance.

In 1976 Richard Dawkins, in his book *The Selfish Gene*, adopted the term “meme” to describe a the smallest transferable unit of cultural information. Dawkins proposed that, like genes, memes replicate themselves and are affected my selection, although the manner in which they do so in considerably different from genetics. With this broad
sweeping proposal, Dawkins and his adherents have attempted to explain everything from religion to language as memetic products. The problem is, critics say, that it does not work that way. “There are limits to strictly biology based models of cultural evolution ... It is becoming apparent that cultural transmission processes are much more central to socio-cultural evolution than has been assumed before.” (Bentley and Shennan 2003:460)

Memetics has no explanation for the storage and transmission of its particular small units. Not everyone reacts to a cultural “bit” the same way – some may ignore it, some may pass it on intact, yet others may alter it to conform to their extant cultural scripting. Memetic representational systems are different from biological systems in that a mind continues to gain new material, new information, throughout the course of a lifetime, unlike alleles and genes that are present complete and static throughout a lifetime. “A neonate possesses a set of (genetic) representations, but a neonate mind has the ability to acquire them.” (Distin 2005:149)

CONCLUSION

Marek Zvelebil probably said it best: people move, and people communicate; “both divergence and convergence are at work in the development of language.” (2004:54) Migration, the development of pidgins and creoles, the advent of ethnogenesis, the dominance of prestige language, dialect and societal bilingualism “would have encouraged linguistic homogeneity within a region,” (Robb 1993: 755).

Words leave no fossils. (WGBH 1994) Irrespective of our diligence, we are unable to trace language development and spread archaeologically or genetically with certainty. While Noam Chomsky tells us that human brains are hard-wired for grammar, my conclusion is that human brains seem to have an inherent need for language and communication. We are all susceptible to cultural input; humans are a symbolic species (Distin 2005:149), using symbolic representation for communication. Edward Sapir's student Benjamin Whorf theorized linguistic relativity, the assertion that language
directly influences the way a society thinks, and the way a society thinks influences its language. Memetic theory agrees, stating that outside a representational system, the symbols and thoughts that advise those symbols have no meaning, “thus the development of a new representational system brings with it the potential for the emergence of a whole host of related concepts.” (Distin 2005:152)

Necessity is the mother of invention in the creation of words and, prior to that, the establishment of the concepts of possible import to a people that require the creation of the words. Language spreads because we need it, both sociologically and innately, perhaps instinctively. We need to be understood and to understand, and in so doing we “infect” others with our capabilities.
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