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Jenny Larsson, Professor of Baltic Languages

The Common Roots of the Indo-European Languages

Honourable Vice-Chancellor, colleagues, and guests!

Today, I have been inaugurated as professor of Baltic Languages. This is something that makes Stockholm University unique; in all of Scandinavia, only in Stockholm is it possible to pursue a full education in Baltic linguistics. The Baltic languages are part of the Indo-European language family, and thus have a common origin with, for example, Latin, Greek, Sanskrit, and English. One might picture the related languages as branches on a large tree with a common root – they all share the same origin.

I am an historical linguist, and the ultimate goal of my research is to understand how the Indo-European languages are related to each other and how they have developed throughout history. By comparing different languages, we can strip away layer after layer from the languages and reveal what previous stages of the languages looked like.

Work as an historical linguist is quite varied. One day you are struggling with a rare form of Sanskrit or a Latin inscription, and the next day you are sitting with a Homeric verse, pondering whether οἶκα-δε could be interpreted as a neuter plural instead of an archaic accusative (because if it is neuter, this might explain why one of the Lithuanian words for God – viešpats – looks the way it does). Most of the time, however, I am working with Baltic texts, usually in Old Prussian or Lithuanian. The Baltic languages are exceptionally important to comparative linguistic research because they are so archaic, and because they are still being spoken.

Language is intimately linked to culture

When studying prehistoric cultures, there is much to learn from studying the material culture that has been left behind; we can study their ceramics, jewellery, and tools. However, human culture is not confined to material artifacts. Culture is intimately linked to language in a complex relationship: language is at once the expression of culture and a part of it. Furthermore, language is a social activity that presupposes that there are people who speak the language – and that they have something to speak about.

The words we manage to trace back in time tell us something about the people who spoke the language and what was important to them. Something that these people appear to have valued dearly were their horses: the word for “horse” has been preserved in nearly all branches of the Indo-European language family, e.g. Latin equus, Sanskrit aśvas, Lithuanian ašva, and Old Irish ech. The reconstructed words also reveal that the speakers of the Indo-European language knew what a wheel was and how to use wheels to build wagons. We can reconstruct not only words for wheel, but also a fairly detailed wagon terminology with words such as axles, hubs, shafts, and wagons. When specific words for different parts of the wagon
are found in such diverse languages as Irish and Sanskrit, that is, two languages that have never been in close geographical contact, it cannot be a matter of words that have been borrowed between the languages or formed independently of each other. Instead, these words belong to a common heritage.

In order to talk about the wheel, it has to be invented, and in order to talk about a wagon, one has to know what a wagon is. Thus, the Indo-European proto-language must have been spoken in a time after the invention of the wheel, and in a place where people were aware of both wheels and wagons.

Where was the Indo-European proto-language spoken?

But where was the Indo-European proto-language spoken? If we are to have a chance to find out, we must dare to go beyond the traditional disciplinary boundaries. All research claiming to want to understand something about humanity is fundamentally interdisciplinary. I have the great privilege of being part of the interdisciplinary organisation the Young Academy of Sweden, where researchers various disciplines have ample opportunity to meet and interact. Such meeting places for researchers from different backgrounds are invaluable for coming up with new ideas and exploring new research paths. In a time of rapid scientific development, we cannot afford to shut ourselves off from progress in other disciplines and only look to our own.

Something that has the potential to revolutionise the research on human prehistory is the biological methods that, in the past few decades, have developed into being applicable to archaeological material as well. We are now able to learn things about prehistoric people that previously we could only dream about. Earlier this year, a ground-breaking genetic study involving researchers from Stockholm University was published, in which the researchers had been able to identify migration patterns of prehistoric humans using DNA from skeletal remains. By analysing residual DNA in bone fragments from people who lived 5,000-10,000 years ago, they were able to demonstrate that there must have been at least two large prehistoric migrations of people into the area we now call Europe. First, there was a wave of migration from the Middle East. This appears to coincide with the first farmers arriving in Europe, but this wave of migration happened too early to match the linguistic dating, as wheels and wheeled vehicles were only invented thousands of years after the spread of farming. However, the researchers were also able to identify a later wave of migration about 4,500 year ago. This time, the migrants came from the east – more specifically, from the steppe areas north of the Black Sea and the Caspian Sea and the so-called Yamnaya culture.

Both the archaeological finds from the Yamnaya culture and the geographical area are consistent with the words that we have been able to trace back to the common proto-language. For example, we know that there were wild horses on the Pontic-Caspian steppe at this time, and archaeological finds have indicated that there were domestic horses there as early as 3,500 BC. Furthermore, there were both wheels and wheeled vehicles among the pastoral cultures on the steppe. Another linguistic argument is that the geographical location might account for the evidence of loan words between Proto-Indo-European and Uralic languages to the north, and Kartvelian languages to the south.
A possible scenario is thus that the people living on the steppe spoke a language that was relatively close to the reconstructed proto-language. When these people started to spread westward, they continued to speak their language, which led to the emergence of different dialects and variations, some of which continued to develop and eventually formed new, closely related languages. Both genetics and the archaeological finds clearly indicate that there was a massive migration from east to west about 4,500 years ago. Presumably, the people brought the language with them, but it is important to remember that not even the most sophisticated DNA research can help us determine which language the people spoke, for this cannot be seen in the genes.

To conclude: Even though it is tempting to draw the conclusion that it was precisely these migrating peoples who spoke the proto-language itself, it cannot be overemphasised that it is in no way a given that genes and language go hand in hand. Nevertheless, the archaeogenetic research has given us a very important piece of the puzzle in the great – interdisciplinary – effort to try to trace humanity and its language back in time. As an historical linguist, I look forward to contributing to the continued efforts!

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