THE EXPRESSION OF "COLD" IN ANCIENT GREEK

Preliminary investigation through the Ancient Greek WordNet

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GreekWordNet

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ANCIENT GREEK WORDNET

The Ancient Greek WordNet is an on-going collaboration between the Center for Hellenic Studies, the University of Exeter, and the University of Pavia to create a comprehensive lexico-semantic database of the Greek language. The idea of creating a lexical resource of this kind originated in Princeton in the 1980s and was first implemented for the English language. Subsequently, various research groups in Italy have tried to extend the implementation of such a lexicographic resource to languages other than English, trying to maintain the original pattern as unaltered as possible. The current project is also moving in this direction. The implementation of the resource follows the model of the Multi WN project of Pianta et al. 2002. The WordNet is a reticular structure involving nodes and relationships among these nodes. The central notion of the WordNet is the "synset" which means "concept" or "block of meaning". Connected to the synsets are all the lemmas (=dictionary entries) which express that concept. Obviously, a word can have more than one meaning; therefore, we can conclude that each word is related to as many synsets as its meanings. Node-synsets are linked together by semantic relationships. Node-lemmas are related to each other by means of morphological/lexical relationships. The theoretical approach underlying this lexical resource is Cognitive Semantics, in which metaphorical and metonymical processes are central to explain the reason why words have more than one meaning.

LINGUISTICS OF TEMPERATURE

All human beings can perceive and experience temperature. Therefore, keeping in mind the possibility of having individual and cultural differences, we can say that this lexical domain is present in all languages. Each of them has a limited number of basic temperature terms, which are different from non-basic ones on psychological, social and linguistic levels. In other words, they are salient, generally known in the whole speech community, morphologically simple or at any rate non-compositional, of regular grammar, native or at any rate nativized, specialized for the domain of temperature and non-too restricted in their application. Basic temperature terms can cover all lexical word classes. The prevalence of one word class over the others differs among languages. The distribution of temperature terms across languages can vary depending on the way of perceiving temperature. COLD or HOT can be said of an object, of a day or also of a person's body. Plank (2003) divides these three perceptual/experiential domains in touch-TEMPERATURE, atmospheric-TEMPERATURE and personal-feeling-TEMPERATURE. Tactile temperature is a quality of a referent, ambient temperature is an uncontrolled situation, personal-feeling temperature is a thing possessed. Languages can express this difference in domains lexically as well as through syntactic constructions. Generally, it is quite widespread inter-linguistically that personal-feeling temperatures prefer verbs, ambient temperatures prefer nouns and touch temperatures adjectives. Accordingly, languages vary in terms of numbers of lexemes owned to express temperature. The minimum number is two, corresponding to HOT and COLD, but it is possible for a language to possess both intermediate and extreme terms. As for the semantic extension, there are numerous links between emotions and temperature. Both extreme cold and fear involve shivering; anger and embarrassment, on the other hand, increase body temperature.

I will now report the very first results of the research on the lexicon of TEMPERATURE, and particularly of COLD, carried out during my internship program in the AGW project. During the annotation process, it was indeed possible to observe interesting general trends in the Greek COLD lexicon from a cognitive semantics point of view, and specifically, in the development of metaphorical and metonymical meanings. As can be seen below, the data collected in this first phase represent only the basis for a work which I hope to continue, since it has revealed a wide range of possible developments that are worth investigating. The first extension that must be made is the addition of the semantic domain of HOT, so that we will have a comprehensive view of the functioning of the temperature lexicon in Ancient Greek.

METHOD

First, I selected about ten different words expressing the meaning "cold" in the Greek lexicon. Next, I used this first bunch of lemmas to build a larger corpus, employing dictionaries and etymologies. That is, for each word initially selected, I tried to retrace all other words in the Greek lexicon that were morphologically related to it, and that had preserved the semantics of cold fairly intact, even following processes of derivation and composition. I came up with 123 words, which I then divided into 6 different groups. For this split, I relied mainly on the reconstruction of word families proposed by etymological dictionaries.

Here are the groups identified:

1. ψυχρός, ά, όν, ψῦχος, εος [τό], ψύχω
2. ῥῖγος, εος [τό]
3. πάγος, ου [ὁ]
4. κρύος, εος [τό]
5. χεῖμα, ατος [τό] - χειμών, ῶνος [ὁ]
6. χιών, -όνος [ἡ]

The observations that I will report concern the first four groups, because χεῖμα "winter" and χιών "snow" behave very differently semantically and still require more investigation from my part.

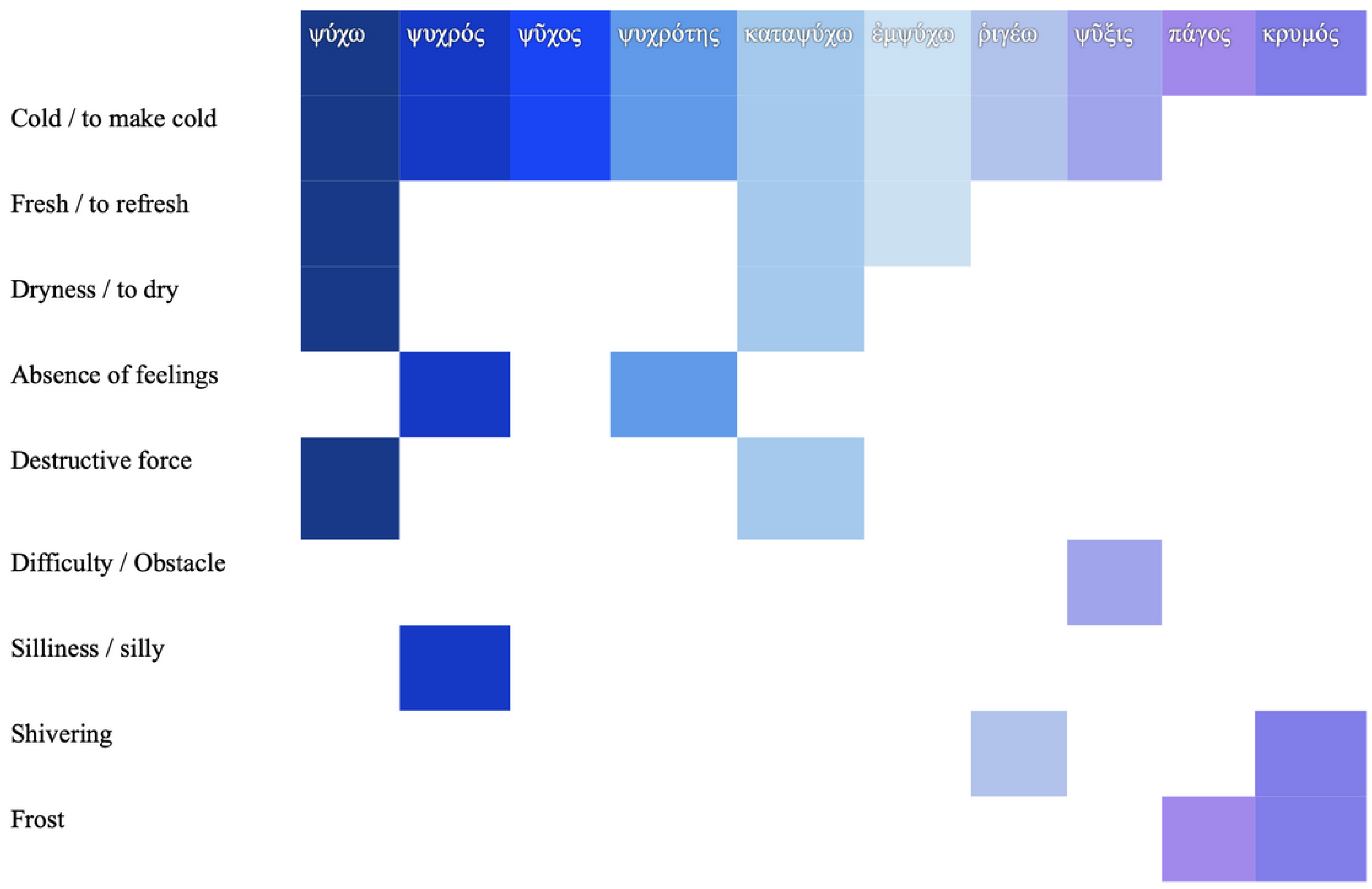
Instead, the first four groups, as can be seen in the table below, seem to almost equally divide the levels of meaning extension, cooperating in that they allow the Greek language to express all that it needs.

FIRST ANNOTATION RESULTS

The table below shows the main meanings (literal, metaphorical and metonymic) of the terms with the highest number of occurrences for each of the four groups investigated. Viewing the data through the table immediately enables us to see the "division of labor" I referred to earlier.

To summarize:

1. ψυχρός, ά, όν / ψῦχος, εος [τό] / ψύχω
> greater number of different metaphorical meanings
> some metonymic meaning as well, mainly from ψύχω and its derivatives = dryness (it seems to me to be an effect of cooling, I see a physical transition here, not conceptual)
2. ῥῖγος, εος [τό]
> metonymy
Sometimes the shivering flows into fear.
3. πάγος, ου [ὁ]
> indicates the effect of cold, i.e. frost, and has no extension
4. κρύος, εος [τό]
> indicates the effect of cold, i.e., frost
> metonymic extension similar to ῥῖγος



The most important metaphorical axes are the following: absence of feelings, coldness perceived as a destructive force and almost personified, obstacle, silliness. Each of these meanings can be extended from the prototypical semantic base of "cold" only by the first group of terms. This one, therefore, manifests a prevalence for the development of metaphorical meanings. Regarding metonymy, on the other hand, the most important axis of extension concerns shivering, although, as mentioned, references to dryness could also be considered examples of metonymy. Even in the case of " shiver" only two of the four groups (ῥῖγος and κρύος) can express it. It is only in the case of ῥῖγος that this secondary metonymic meaning can sometimes be further extended to indicate fear, in which case its meaning would be retraced as metaphoric. By contrast, for πάγος and κρύος, the primary meaning is itself linked to metonymy, because, as mentioned, both words denote frost, which is nothing but the concrete result of cold.

SOME POSSIBLE DEVELOPMENTS

>What are the basic temperature terms of Ancient Greek?
>What syntactic constructions are used for talking about temperature-related situation (i.e. about "concrete" temperature perception and temperature in extended uses?)
>What is the distribution of temperature terms in relation to the three different perceptual/experiential domains?
>What is the relationship between differences in meaning, lexical selection and morphosyntactic behavior?
>Deepening of the relationship between linguistics of temperature and cognitive linguistics

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