

POPULAR SCIENTIFIC SUMMARY OF THE PROJECT

The aim of the Project is to determine in what way the internal structure of complementizers, that is the elements like English *that* or Polish *że, czy, jeśli*, etc., which introduce the embedded clauses, is responsible for the grammatical phenomena that take place at a sentence level. Elements of this type appear in all languages and in all languages there exist dependencies between the complementizer type and the structure and properties of the sentences they appear in. This is illustrated on the following examples, in which the Polish *że* introduces a declarative sentence, while *jeśli/jeżeli* introduces a conditional sentence that denotes a possibility:

- (1) Wiem, **że** Piotr zjadł moje ciastko. (2) Przyjedziemy, **jeśli / jeżeli** nas zaprosisz.

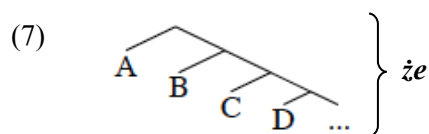
In many languages there exist sentence linkers which exhibit more than one property and serve more than one function. Due to that, they appear in more than one type of construction. The complexity of complementizers can be well illustrated by the Italian *che*, which introduces embedded finite declarative clauses as in example (3), or both main and embedded questions, as in (4) and (5), respectively:

- (3) Mi hanno detto **che** vieni domani
 mi aux-3PL powiedzieli że przyjdiesz jutro
 'Powiedzieli mi, że przyjdiesz jutro.'
- (4) **Che** fai?
 co robisz
 'Co robisz?'
- (5) Non so **che** fare.
 nie wiem co robić
 'Nie wiem, co mam zrobić.'

On the other hand, the structural complexity of complementizers is very well visible in the *que/qui* alternation in French as in (6), where *que* changes into *qui* when certain elements of the embedded clause are moved into the main clause:

- (6) a. Tu crois [**que** qui est venu ___]?
 ty myślisz że kto być przyszedł
 'Myślisz, że kto przyszedł?'
- b. Qui tu crois [**qui** ___ est venu ___]?
 kto ty myślisz że być przyszedł
 'Kto myślisz, że przyszedł?'

Due to the complexity of the kind and amount of grammatical features which complementizers are made of, the aim of the Project is to develop a complete theory of complementizers in a new approach to grammar, namely Nanosyntax. Nanosyntax is a new and still developing theory of the architecture of grammar whose major premise is that not only words but also the elements which the words are made of (the so-called morphemes, as in *że+by*) have their own structure. This structure is made of grammatical features, that is elements that are smaller than morphemes. These features form a specific geometric representation. The main difference between Nanosyntax and other theories of grammar is that the other theories assume that morphemes and words are elements that build larger syntactic structures (phrases and sentences), in Nanosyntax, morphemes and words are the products of the building process. The mechanism in which morphemes are created is Lexicalization. In this process, a hierarchical geometric representation of individual grammatical features -- indicated as A, B, C and D below -- is matched with the phonetic material, as for instance the Polish complementizer *że*:



The aim of the Project will focus on developing such a theory of complementizers in which both internal and external grammatical properties of these elements will reflect the kind and amount of grammatical features they are made of. According to our hypothesis, these features -- as well as the way in which they are lexicalized -- are responsible for the meaning of complementizers and several phenomena and grammatical processes that take place in sentences they are a part of.