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A DISCUSSION OF SOME POSSIBLE STAGES IN THE EVOLUTION OF SYNTAX

1. INTRODUCTION

In his book *Language and Species,* Derek Bickerton[1] has suggested that language evolved in two stages. The first stage he called protolanguage, that is modern language minus syntax, and the second one is modern human language as we know it. Bickerton's hypothesis (ibid.) implies that there were no intermediate stages in the development of language and the reason for this is that syntax, the most crucial part of language, could not evolve incrementally as it is too complex and its properties too interdependent to develop in a one by one mode. More recently, however, a number of linguists[2] have argued the opposite, claiming that there is enough evidence to imply that syntax in fact developed gradually.

The aim of this paper is to discuss and review some of the possible stages in the evolution of syntax suggested by the aforementioned linguists. In sec-

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[1] D. Bikerton, *Language and species*, Chicago and London 1990.

[2] B. Heine & T. Kuteva, *The genesis of grammar*, New York 2007; R. Jackendoff, *Possible stages in the evolution of the language capacity*, „Trends in Cognitive Sciences" 3(1999), v. 7, p. 272-279; S. Johannson, *Origins of language: constraints on hypotheses*, Amsterdam and Philadephia 2005;

R. Burling, *The slow growth of language in children*, w: *The transition to language,* red. A. Wray, Oxford 2002, p. 297-310.

tion 2, thus, I will elaborate on one of the method used for the reconstruction of stages in the evolution of syntax, that is grammaticalization. I will also show that the *fossils* of these earlier stages of syntax are present in the grammar of modern languages, in child language, and in pidgins. Section 3 will focus on the discussion of some of the syntax developmental stages with attention given to such challenging questions whether there was protolanguage at all, which came first lexicon or syntax, and the origins and development of word order. The paper will close with conclusions.

2. METHODOLOGY

2.1. GRAMMATICALIZATION

One of the most promising methods of reconstruction of the earlier phases in the evolution of syntax is termed grammaticalization. It hinges on regularities that occur in the evolution of linguistic forms across language families, drawing on the unidirectionality principle (according to which linguistic forms evolve in one direction), etymology, and the implications these have for the reconstruction of earlier language stages[3]. In other words, grammaticalization as a method of reconstruction of the evolution of syntax is based on the assumption that at any stage of language development, the same processes of change are at work, therefore the same processes must have occurred at the beginning of language development. For example, in a number of linguistic communication systems including sign language we can observe a change from a lexical (e.g. a verb) to a functional category (e.g. an aspect marker) and from a functional to an even more functional category (e.g. a tense marker), but not the other way round[4]. On the basis of this observation, a couple of conclusions can be drawn. First, it can be assumed that the same kind of directional change could have taken place in the earlier stages of language development and, secondly, that human language was structurally much less complex at its earlier stages of evolution than modern languages are, as the devel-

[3] Heine & Kuteva, *The genesis of grammar…*; P. J. Hopper & E. C. Traugott, *Grammaticalization*, Cambridge 1993.

[4] Heine and Kuteva (2007) point out that the process of grammaticalization is not without exceptions and a number of examples contradicting the unidirectionality principle have been found. Still, exceptional cases are few compared to the large number of cases that conform to the principle. Moreover, according to Haspelmath (1999), grammaticalization is largely irreversible.

opmental pattern above illustrates[5]. The simplicity of earlier stages of language has also been advocated by Hurford[6] (2003: 49), who claims that if it is assumed that human language is directly derived from conceptualization patterns of pre-human primates, then it must have gone through a stage where it was less complex than it is today.

The process of grammaticalization involves a number of mechanisms, such as:

(1) a. extension, i.e. the rise of new grammatical meanings when linguistic expressions are extended to new contexts.

b. desemanticization (or 'semantic bleaching'), i.e. loss (or generalization) of meaning content.

c. decategorialization, i.e. loss of morphosyntactic properties characteristic of lexical or other less grammaticalized forms.

d. erosion ('phonetic reduction'), i.e. loss of phonetic substance[7].

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[5] H e i n e & K u t e v a, *The genesis of grammar*...

[6] J. R. H u r f o r d, *The language mosaic and its evolution*, in: *Language evolution,* red. M.H Christiansen & S. Kirby, Oxford 2003, p. 49.

[7] These mechanisms of evolution can be illustrated on the basis of the following example from Swahili (Heine & Kuteva 2002b: 378-379):

(i). a. a- ta- jenga nyumba.
C1 FUT build house
'he will build a house.'
b. a- taka ku- jenga nyumba.
C1: PRS want INF-build house.
'he wants to build a house.'
c. a- taka- ye- jenga nyumba.
C1 want C1:REL build house.
'he who will build a house.'

The examples in (i) illustrate how the future tense marker *-ta-* has been derived from the full verb *-taka.* That this is the case can be deduced from the fact that the future marker *-ta-* has retained its earlier form in certain contexts, e.g. in relative clauses, as in (c). What it suggests as well is that the lexical verb had probably first extended its meaning to include some expression of futurity. Next, the verb *-taka* lost its lexical meaning entirely and acquired a new grammatical meaning (desemanticization). Subsequently, in the process of decategorialization, the verb lost its properties characteristic of verbs, such as the capacity to form the predicate nucleus of the clause and to take arguments. In this case, decategorialization has also been manifested in cliticization. The verb, being reduced to the future marker, lost its independent status and became dependent on another verb, as in example (a).

Finally, the verb *-taka-* lost its phonetic substance, being reduced to *-ta.* What is worth noticing is that the same process from volition verb to future marker, Heine & Kuteva (2002b: 379) claim, occurred in a number of other languages including English.

The ordering of these mechanisms reflects the diachronic sequence in which they apply: grammaticalization usually starts with extension, which triggers desemanticization, and subsequently decategorialization and erosion[8]. Haspelmath[9] argues that it is semantic generalization that is in a sense the cause of the other processes of grammaticalization, as it allows a lexical item to increase in frequency, which triggers the other changes.

2.2 FOSSILS

Another method of reconstruction of the earlier stages of syntax that has been considered both promising, and at the same time contentious, is the search for traces of these stages both in degraded forms of language (e.g. pidgins, child language) and in the grammar of modern language.

The linguistic '*fossils*' present in certain design features of modern language exhibit "an evolutionarily more primitive character", and therefore may be considered as remnants of these earlier stages in the development of syntax[10]. Some of these '*fossils*' elaborated on by Jackendoff[11] are words, such as *wow, shh,* and *oboy*, which do not combine with other lexical items to create larger syntactic constructions, and also principles, such as Agent First, Focus Last, and Grouping (for a detailed discussion see section 3.2.).

A different kind of '*fossils*' are found in child language and pidgins. These '*fossils*' of archaic features of language are present in the brain and resorted to whenever it is impossible for an individual to gain access to full models of target languages. Thus, according to Bickerton[12], young children and pidgin speakers are in a similar situation to early humans, who also did not have access to full linguistic systems. Therefore, the forms of expression exploited by them provide clues of what earlier stages of language might have looked like. The evidence for the evolutionary development of syntax present in these modes of communication should, however, be treated with caution. First, the situation of early language or Bickertonian protolanguage contrasted sharply with that of pidgins. There was no language on which early language was built, there were no other languages that served as models, and there were no

[8] Heine & Kuteva, *The genesis of grammar*..., p. 35.

[9] M. Haspelmath, *Why is grammaticalization irreversible?,* „Linguistics" 37(1999), v. 6, p. 1062.

[10] Jackendoff, *Possible stages in the evolution of the language capacity*…; R. Jackendoff, *Foundations of language: brain, meaning, grammar, evolution*, Oxford 2002.

[11] Jackendoff, *Foundations of language: brain, meaning, grammar, evolution*...

[12] Bikerton, *Language and species*…

models that could have served as cognitive templates to shape early language[13]. Secondly, although the hypothesis of ontogeny recapitulating phylogeny is appealing, Slobin[14] provides evidence to show that children are neither the agents of language change nor do they create new languages. Nevertheless, in this paper I will use data both from pidgins and child language as long as they converge with other types of evidence.

3. SOME STAGES IN THE EVOLUTION OF SYNTAX

Employing the methodology reviewed in section 2, a number of linguists[15] suggested possible stages in the development of syntax. Each of these hypotheses makes two crucial assumptions, i.e. that the earliest languages were much simpler in structure than modern languages are, and that each previous less complex step gave rise to the development of the next more complex one (see section 2).

These stages are as follows[16]:

1. *One-word utterances*
2. *Mono-causal propositions*
3. *Head-dependent clauses*
4. *Elaboration of phrase structures*
5. *Temporal and spatial displacement, the beginning of clause subordination*
6. *Obligatory expressions, elaborated clause subordination*

Only selected evolutionary patterns will be elaborated on in each of these stages.

[13] Heine & Kuteva, *The genesis of grammar…*, p. 195.

[14] D. I. Slobin, *Language evolution, acquisition and diachrony: probing the parallels*, w: T. Givón and Malle (red.), 2002, p. 375-392.

[15] See Heine & Kuteva, *The genesis of grammar…*; Jackendoff, *Foundations of language: brain, meaning, grammar, evolution…*; Johannson, *Origins of language: constraints on hypotheses…*

[16] Heine & Kuteva, *The genesis of grammar…*

3.1. ONE-WORD UTTERANCES[17]

There is no agreement among linguists as to whether, at the earliest conceivable stage, there might have existed two types of linguistic entities: one denoting thing-like time stable entities (i.e. nouns), and another one for non-stable concepts such as events (i.e. verbs), or whether nouns gave rise to verbs.

In their recent book *The Genesis of Grammar*, Heine & Kuteva[18] convincingly demonstrate that nouns predate verbs, and that at the earliest stage, there existed only one lexical category[19]. Grammaticalization studies show that there appears to be a unidirectional development whereby expressions reserved for nouns or nominal concepts are exploited for encoding actions or events, that is, concepts that are typically expressed by verbs; conversely, there is no evidence to suggest that verbs are regularly grammaticalized into nouns[20]. These findings are supported both by children at the one-word stage of language who use predominantly nouns[21], and by Jackendoff's[22] analysis of linguistic '*fossils'*. Jackendoff (ibid.) maintains that there exists a number of items, not necessarily nouns, usually associated with sudden high effect (e.g. *dammit*!) or otherwise situation specific (e.g. *shh, psst*), that cannot be integrated into larger syntactic constructions, which suggests that they are remnants of this earlier one-word stage.

For Bickerton[23], "a verbless protolanguage seems intrinsically implausible," as even children at a one-word stage use verbs and apes seem to learn nouns as easily as verbs. However, the fact that it is possible for children to use verbs at a very early stage does not exclude a situation in which they can successfully communicate without them. That there are other communication systems that make use of predominantly nouns is attested by examples provided Bickerton[24] himself. In his discussion of two varieties of pidgins,

[17] The one-word stage suggested by many linguists should not be regarded as lending support for the holistic theory (Wray 1998, 2000). Grammaticalization and linguistic '*fossils'* do not provide any evidence that one-word utterances at the earliest stages of language evolution were semantically complex, and later segmented into words and syntactic structures.

[18] H e i n e & K u t e v a, *The genesis of grammar…*

[19] J o h a n n s o n, *Origins of language: constraints on hypotheses…*

[20] H e i n e & K u t e v a, *The genesis of grammar…*, p. 100.

[21] M. T o m a s e l l o, *First verbs*, Cambridge 1992, p. 9.

[22] J a c k e n d o f f, *Foundations of language: brain, meaning, grammar, evolution…*

[23] D. B i c k e r t o n, *Language evolution: a brief guide for linguists*, „Lingua" 117(2005), p. 516.

[24] B i k e r t o n, *Language and species…*

namely Hawaiian and Russonorsk (used in contact between Russian and Scandinavian sailors), Bickerton (ibid.) observes that verbs may be missing altogether.

Another problem that arises is whether the earliest nouns included only common nouns, or whether proper nouns were included as well. According to Hurford[25], the earliest language had no proper nouns but merely definite descriptions. Bickerton[26], on the other hand, asserts that common and proper nouns existed in the earliest stages of language evolution, and supports his theory with the observation from ethnological studies of primates. These studies show that apes have a very clear idea of the other individuals in their group and even of the precise kinship relations of each individual (Bickerton, ibid). Grammaticalization studies conducted by Heine & Kuteva[27] do not provide any conclusive answer to this problem either, but only show that common nouns are one of the main sources of functional categories, while proper nouns do not normally undergo the process of grammaticalization. However, not all common nouns undergo grammaticalization only a small proportion of them do.

3.2. MONO-CLAUSAL PROPOSITIONS

The next stage in the evolution of syntax is characterized by the presence of two kinds of lexical categories, namely verbs and nouns[28]. This implies that there were means of combining the two to create some simple mono-clausal verb-argument constructions. Heine & Kuteva[29] maintain that there is no evidence to claim that it was possible to use a verb with more than one argument, but the presence of two lexical categories suggests that there may have been some principles of linear arrangement of these constituents. Jackendoff[30] actually suggests some of these '*fossil*' principles, namely Focus Last and Agent First[31], motivated by semantic and pragmatic, not syntactic considera-

[25] H u r f o r d, *The language mosaic and its evolution*…, p. 53.

[26] B i c k e r t o n, *Language evolution: a brief guide for linguists*…, p. 516.

[27] H e i n e & K u t e v a, *The genesis of grammar*…

[28] J o h a n n s o n, *Origins of language: constraints on hypotheses*…; H e i n e & K u t e v a, *The genesis of grammar*…

[29] H e i n e & K u t e v a, *The genesis of grammar*…, p. 302.

[30] J a c k e n d o f f, *Foundations of language: brain, meaning, grammar, evolution*…, p. 246-250.

[31] These principles were seen by Jackendoff (ibid.) as ubiquitous in the so-called Basic Variety – a level of linguistic competence achieved without specific instruction by adult second-language learners with various native and target languages. Moreover, the data gathered by Bowerman ((1973) in Givón 1995: 437) show that these principles are also employed by children during the two-word stage.

tions. According to Jackendoff (ibid.), at this stage there were no syntactic categories, such as subject or object, but only semantically defined ones, such as agent and patient, where the agent was expressed in the subject position. Information was pragmatically structured in terms of new and given, with new information provided at the end. Jackendoff (ibid.) suggests that these semantic and pragmatic principles could have given rise to syntactic structure. A similar idea is advocated by Newmeyer[32], who claims that syntactic categories arose from semantic categories:

In particular, since there is a rough correlation between the semantic notions 'predicate', 'argument' and 'proposition' and the syntactic categories 'V', 'NP' and 'S' respectively, it seems reasonable to hypothesize that, as language evolved, the latter were grammaticalization of the former[33]. In addition, grammaticalization studies suggest that there is a fairly regular development from pragmatically motivated structures to syntactic structures[34,35].

This analysis has interesting consequences for Bickertonian protolanguage. Protolanguage is assumed to be an unregulated concatenation of basic lexical categories, namely verbs and nouns. If, however, findings on grammaticalization and linguistic '*fossils*' are accurate, then it is not possible to talk about protolanguage in terms of random concatenation as there are clearly principles that standardize the linear arrangement of categories. In fact, Bickerton[36] is aware of semantic and pragmatic factors influencing the construction of protolanguage, but still insists on calling it structureless. Evidently, for Bickerton (ibid.), the notion of *structure* refers to syntax only.

That language at this particular stage of development had, nevertheless, some rudimentary form of grammar is argued by both Heine & Kuteva[37] and

[32] F. J. Newmeyer, *Three book-length studies of language evolution*, „Journal of Linguistics" 36 (2000), p. 383- 395.

[33] Newmeyer, *Three book-length studies of language evolution*…, p. 388.

[34] Heine & Kuteva, *The genesis of grammar*…

[35] Furthermore, Newmeyer (2003) argues that the thematic structure of the earliest language gave rise to one word order in particular that is SOV(subject-object-verb), and provides a number of arguments in support of his hypothesis. They are as follows: (a) SOV order dominates among modern languages; (b) the historical change from OV>VO is more common and natural than change from VO>OV; (c) SOV languages are more likely to have alternative orderings of S,V, and O than do SVO languages. Although Heine & Kuteva (2007) generally agree with these observations, they claim that Nemeyer's theory should be treated with care as there is not enough typological and diachronic evidence to verify his arguments.

[36] Bikerton, *Language and species*…

[37] Heine & Kuteva, *The genesis of grammar*…, p. 320.

Jackendoff[38]. Jackendoff (ibid.) maintains that Bickertonian protolanguage is very similar to the Basic Variety which is considered a language with a form of syntax. What is more, Jackendoff (ibid.) also cites some evidence from the free utterances of the bonobo Kanzi who seems to show some limited use of semantically based word order. If the linguistic abilities of Kanzi have not been overestimated, then it appears that a simple word order occurs at a very early stage even before Bickertonian protolanguage, and therefore, in the light of the aforementioned evidence, the notion of protolanguage as structureless may be difficult to maintain.

Another important issue that arises at this stage of evolution of language is the following: which of the two: syntax or lexicon was there first? And what was the nature of an early lexicon? Findings on grammaticalization do not offer any conclusive answer to the first of these questions. The reconstructions carried out by Heine & Kuteva[39] show that lexical distinctions, that is distinctions between nouns and verbs in particular, must have been in place before any of the functional categories or syntax could occur – hence, there must have been some kind of lexicon before grammar appeared.

This theory is in accordance with the opinion expressed by a number of other linguists.

Givón[40] gathered a body of evidence to support this hypothesis:

(a) birds, dogs, horses, primates and other pre-human species can easily be taught auditory, visual or gestural lexical code-labels for nouns, verbs, and adjectives. The relative ease with which the teaching of a well-coded lexicon takes place in many pre-human species suggests that the underlying neurocognitive is already in place. In contrast, documenting the natural use of grammar in pre-human species, or teaching it to them, is much harder to demonstrate; (b) ontogenetically, both hearing and signing children acquire the lexicon first, using pregrammatical (pidgin) communication before acquiring grammar, and natural 2nd language acquisition follows the same course but often stops short of grammaticalization.

Having reviewed a number of situations in which new communication systems arose, such as creoles, twin languages and deaf sign languages, Comrie[41]

[38] Jackendoff, *Foundations of language: brain, meaning, grammar, evolution*..., p. 251.

[39] Heine & Kuteva, *The genesis of grammar*...

[40] T. Givón, *The visual information-processing system as an evolutionary precursor of human language*, w: Givón and Malle (red.) (200b), p. 9.

[41] B. Comrie, *From potential to realization: an episode in the origin of language*, „Linguistics" 38(2000), v. 5, p. 1000.

argues that the main task in creating language seems to be providing a lexicon. Since early language clearly had a lexicon, early humans could, in principle, have simply started off from whatever form of early language they already knew and expanded it. Furthermore, Comrie (ibid.) continues, while the provision of lexicon is a task that does not in itself require the linguistic ability of humans, it is nonetheless a crucial catalyst for the realization of this ability. In other words, lexicon provides the material for syntax to work on, and without it, there would simply be nothing to combine into utterances[42]. To conclude, it seems fairly uncontroversial that lexicon preceded syntax.

As regards the nature of the early lexicon, both Givón[43] and Heine & Kuteva[44] seem to agree that the early vocabulary must have been confined to express sensory-motor spatial-visual objects, states and actions. Studies on grammaticalization and on the lexicon of extant human languages show that expressions for concrete, physically perceptual contents are employed for less concrete and perceptually less easily accessible contents[45].

3.3. HEAD-DEPENDENT CLAUSES

The third stage in the evolution of syntax is characterized by the emergence of new word categories such as adjectives and adverbs. These new categories came into being via the process of grammaticalization of nouns and verbs. What was needed for adjectives and adverbs to emerge was a combination of two lexical nouns that was used frequently enough over an extended period of time. This allowed one of the nouns to assume an auxiliary function and turn into a modifier of the other[46].

As was mentioned in section 3.1, not all nouns underwent the process of grammaticalization into adjectives and adverbs. These were usually nouns associated with some specific quality that denoted plants (or parts of plants), animals, and metals. Thus, in English, Heine & Kuteva[47] found that names of

[42] S. Pinker & R. Jackendoff, *The faculty of language: what's special about it?*, „Cognition" 95(2005), p. 201-236.

[43] T. Givón, *Bio-linguistics: the Santa Barbara lectures*, Amsterdam &Philadelphia 2002a, p. 151; Givón, *The visual information-processing system as an evolutionary precursor of human language*, p. 28.

[44] Heine & Kuteva , *The genesis of grammar…*, p. 314.

[45] Heine & Kuteva, *The genesis of grammar…*, p. 314.

[46] Heine & Kuteva, *The genesis of grammar…*, p. 304.

[47] Heine & Kuteva, *The genesis of grammar…*, p. 60.

fruits such as *orange,* or metal names such as *bronze, brass,* or *silver* were grammaticalized to adjectives referring to colour.

In many languages, nouns denoting sex-specific human items, such as *man, woman, father,* and *mother* were grammaticalized to adjectives and recruited to express distinctions in sex. On the other hand, concepts relating to spatial and temporal orientation were grammaticalized to spatial and temporal adverbs respectively. One common way in which verbs were grammaticalized to adverbs was via serialization[48] of the two verbs where one of them came to assume a modifying function for the other and gradually turned into an adverbial modifier of the other verb[49].

The emergence of adjectives and adverbs gave rise to a number of extensions of the linguistic system. Firstly, the first phrasal structures came into being, namely noun-adjective and verb-adverb constructions (Heine & Kuteva, ibid.), headed by nouns and verbs respectively. As a result, the principles of word order discussed in section 2.2 (e.g. Focus Last) were applied to whole phrases, not particular words, which increased the complexity of messages conveyed[50]. What is more, head-dependent structures made hierarchically organized expressions possible. This, in turn, gave rise to simple recursive structures in which one category was embedded in another of the same type[51].

3.4. ELABORATION OF PHRASE STRUCTURES

The fourth stage of syntax evolution was marked by the introduction of negation and demonstratives, which led to a further elaboration of the phrase structure[52].

Although there were nouns that gave rise to negation (e.g. French *pas* 'step'[53]), the main pathway for the evolution of negation was via the

[48] Serialization is a phenomenon in which verbs or verb phrases within a single clause are strung together so that they (a) express simultaneous or immediately consecutive actions; (b) have a single grammatical subject; and (c) have no connective markings (http://www.sil.org/).

[49] Heine & Kuteva, *The genesis of grammar…*, p. 73.

[50] Jackendoff, *Foundations of language: brain, meaning, grammar, evolution…*, p. 252.

[51] Johannson, *Origins of language: constraints on hypotheses…*; Jackendoff, *Foundations of language: brain, meaning, grammar, evolution…*; Heine & Kuteva, *The genesis of grammar…*

[52] B. Heine & T. Kuteva, *On the evolution of grammatical forms*, in: *The transition to language*, red. A. Wray, Oxford 2002b, p. 376-397; Heine & Kuteva, *The genesis of grammar…*

[53] Hopper & Traugott, *Grammaticalization...*, p. 56-59, 65-66.

grammaticalization of verbs. Heine & Kuteva[54] show that this process was confined to modally marked contexts, especially to prohibitive and negative imperative constructions, where verbs meaning 'stop' were reinterpreted as negation markers. The following example from Welsh illustrates this case:

1. Welsh (William[55] in Heine and Kuteva, ibid.)
   Paid â mynd!
   (stop. IMP.2.SG and go.VN[56])
   'Don't go'

The verb *peidio* 'cease, stop' has acquired the function of a prohibitive auxiliary (Heine & Kuteva, ibid.). Negative imperatives and prohibitives have a number of other verbal sources such as verbs of negated volition, that is verbs of desire, the imperative of 'not want, be unwilling'. Other verbs that gave rise to negation are 'lack', 'miss', 'leave' and 'fail'. Apart from these, the most common pathway of grammaticalization from verb to negation is by negative existential verbs that gradually developed into markers of verbal negation[57].

As regards the emergence of demonstratives, the most common source of these were locative adverbs and more rarely verbs such as 'go' and 'see'[58]. The process of grammaticalization happened in the following way: adverbial modifiers usually denoting proximal ('here') and distal ('there') locations were added appositionally to nouns (e.g. 'the house here/there') and grammaticalized to nominal determiners ('this/that house')[59]. This process did not involve desemanticization as these markers retained their semantics but decategorialization had the effect that their occurrence was restricted to the position before a noun.

[54] H e i n e & K u t e v a, *The genesis of grammar*..., p. 77-78.
[55] U. W i l l i a m, *A short Welsh grammar*, Llandybie 1960, p. 78.
[56] Abbreviations:
IMP imperative
SG singular
VN verbal noun
[57] W. C r o f t, *The evolution of negation*, „Journal of Linguistics" 27(1991), p. 1-27; H e i n e & K u t e v a, *The genesis of grammar*...
[58] H e i n e & K u t e v a, *World lexicon of grammaticalization*..., p. 172-3.
[59] H e i n e & K u t e v a, *The genesis of grammar*..., p. 84.

3.5 TEMPORAL AND SPATIAL DISPLACEMENT, THE BEGINNING OF CLAUSE SUBORDINATION

The fifth stage in the evolution of syntax is characterized by the most dramatic changes in language structure. It is due to the introduction of relative and complement clause subordinators for presenting multi-propositional contents and pronouns, definite markers, and tense markers for displaced reference. Evidence from ontogeny and primate communication has been taken to suggest that the earliest language was used to converse about here-and-now, that is about objects, events, people in the immediate speech situation[60]. The introduction of the aforementioned means changed that and allowed the communication to be detached from the here-and-now.

The evolution of clause subordination also had a significant impact on recursion. Until then, there may have been a simple recursion within a noun phrase and only the emergence of embedded structures led to its further elaboration in the form that we find it nowadays[61].

Heine & Kuteva[62] show that relative clause markers emerged via the grammaticalization of demonstratives. The most common pathway for development of complementizers was via verbs of saying, verbs meaning 'be like', 'be equal', and 'resemble', and demonstratives[63].

The process in which relative clauses came into being concerned proximal and distal demonstratives that were used as pronouns. This process involved desemantisization on the one hand, in that the spatial deixis of the demonstrative was bleached out, and on the other hand, decategorialization, in that the demonstrative pronoun lost its freedom to occur on its own as an argument of the clause and was restricted to the function of presenting relative clauses.

As regards complementizers, Heine & Kuteva (ibid.) suggest the following stages in the evolution from the verb 'say' to a complementizer:

(a) speech act verb 'say'
(b) 'say' as a quotative marker
(c) complementizer of object clauses headed by speech-act, perception (e.g. 'see'), and cognition verbs (e.g. 'know')
(d) complementizer of subject clauses.

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[60] Givón, *The visual information-processing system as an evolutionary precursor of human language*..., p. 32.

[61] Heine & Kuteva, *The genesis of grammar*..., p. 296-297; Johannson, *Origins of language: constraints on hypotheses*..., p. 235.

[62] Heine & Kuteva, *The genesis of grammar*..., p. 88-93.

[63] Hopper & Traugott, *Grammaticalization* ..., p. 187-188; Heine & Kuteva, *The genesis of grammar*..., p. 236.

Finally, one important grammaticalization pathway that is worth mentioning concerns the development of tense markers. Reconstruction studies prove that they have evolved from aspect markers. Heine & Kuteva[64] show that perfect markers gave rise to past tense markers and progressive markers to present tense markers.

3.6 OBLIGATORY EXPRESSIONS, ELABORATED CLAUSE SUBORDINATION

The final stage in the evolution of syntax led to the development of an obligatory marking of functional categories. What it means is that the optional means of expressing agreement or distinctions in argument structure that may have existed now became obligatory[65]. Together with the emergence of formal markings for passive constructions that allowed for the grammatical manipulation of discourse participants in an utterance, the process of combining clauses increased still further in complexity.

Grammaticalization studies show that agreement markers arose via the grammaticalization of pronouns. In this process, categories that had a clear-cut lexical or grammatical function were first desemanticized, and then decategorialized. During the former, they lost their other meanings apart from the one signalling syntactic relations across words and phrase and, as a result of the latter, they became clitics or affixes, losing their independent status[66]. A similar pattern of grammaticalization gave rise to passive markers. These emerged from third-person plural subject pronouns of transitive sentences that underwent desemanticization in which they lost their meaning and turned into markers whose only function is to signal syntactic configuration[67].

Thus, this sixth stage can be regarded as a transition point between early language to modern human language.

4. CONCLUSION

Despite the fact that the evolution of language has been considered as a rather speculative discipline, it appears that grammaticalization studies to-

[64] H e i n e & K u t e v a, *The genesis of grammar…*, p. 90.
[65] H e i n e & K u t e v a, *The genesis of grammar…*, p. 306.
[66] H e i n e & K u t e v a, *The genesis of grammar…*, p. 95.
[67] H e i n e & K u t e v a, *The genesis of grammar…*, p. 97; H e i n e & K u t e v a, *World lexicon of grammaticalization…*, p. 236-237.

gether with the analysis of linguistic *fossils* provide reliable evidence for the incremental development of syntax, thus ruling out a hypothesis according to which language evolved in one giant leap from early language to modern human language. However, the possibility that this development proceeded rapidly, giving the impression of a sudden change, cannot be dismissed[68].

The aim of this paper was to provide a very general overview of some of the possible stages in the evolution of syntax. The grammaticalization pathways discussed above show the development from concrete lexical categories to more abstract metaphoric ones with each previous simpler stage giving rise to the next more complex one.

At each of the evolutionary stage discussed, a number of questions arise. Some of these problems have been addressed above. Others, such as how properties restricted to modern human language emerged or at which point exactly syntax starts, unfortunately will have to remain in the realm of conjecture at least until either new evidence comes to light in this field, or new research methods are developed.

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[68] Heine & Kuteva, *The genesis of grammar*..., p. 119.

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A DISCUSSION OF SOME POSSIBLE STAGES IN THE EVOLUTION OF SYNTAX

S u m m a r y

This paper provides an overview of some possible stages in the evolution of syntax. It is argued, following Heine & Kuteva (2007), Jackendoff (1999), Johansson (2005), and Burling (2002), that syntax developed gradually through clearly identifiable developmental stages, not as maintained by Bickerton (1990) in one fell swoop.

DYSKUSJA NAD KILKOMA MOŻLIWYMI ETAPAMI EWOLUCJI SYNTAKSY

S t r e s z c z e n i e

Niniejszy artykuł zawiera przegląd możliwych etapów w ewolucji syntaksy. Autorka twierdzi, opierając się m.in. na badaniach takich uczonych, jak: Heine & Kuteva (2007), Jackendoff (1999), Johansson (2005) i Burling (2002), że syntaksa rozwijała się stopniowo, a nie jak utrzymuje Bickerton (1990) za jednym zamachem.

Słowa kluczowe: ewolucja języka, gramatykalizacja, protojęzyk.
Key words: language evolution, grammaticalization, fossils, protolanguage.