

**Junichi Toyota**  
**University of Freiburg**

## **OLD ENGLISH AS A LANGUAGE WITH ACTIVE ALIGNMENT: EVIDENCE FROM WORD ORDER**

English, whether it is Old English or Present-day English, has been considered to possess nominative-accusative alignment. This tradition is challenged in this paper: instead, it is proposed that earlier English, especially Old English possessed active alignment, which accounts for the disappearance of various earlier constructions in the history of the English language. The shift in grammatical constructions happened due to the alignment change. The emergence of nominative-accusative alignment in particular brought about transitivity in the grammatical structure. So it is claimed that the alignment change, particularly represented by the emergence of transitivity, is the key factor in explaining the grammatical change in English.\*

1. INTRODUCTION. Any period of English is unambiguously considered a language with nominative-accusative alignment. However, such treatment of grammar causes problems in diachronic analysis, since language can change its alignment during the course of change (Harris and Campbell 1995: 240-281). English is a part of Indo-European (IE) languages, which all descended from a common ancestral language, Proto-Indo-European (PIE). Based on various reconstruction works, PIE is known not to possess nominative-accusative alignment. So it is obvious that there was a change of alignment in IE languages. However, such change is often not so clear-cut, and some earlier grammatical characteristics often remain unchanged. In this paper, we analyse one such case, i.e. the word order change, in English from IE perspectives and explain what the earlier word order was and why it changed into SVO. Such an analysis reveals that grammatical features often associated with PIE can have lingered till much later than has been commonly considered.

This paper is organised as follows: first a less known alignment type, i.e. active alignment is introduced, especially in relation to the history of IE languages, including PIE. Then the focus is shifted onto the English grammar. It will be shown that there are several features that indicate the existence of active alignment in earlier English. Then a particular feature, i.e. word order, is analysed in detail. Finally, some further possible evidence for the trace of active alignment is suggested.

2. ALIGNMENT AND IE LANGUAGES. The term alignment means ‘[a]ny one of several grammatical systems for classifying NP arguments in the sentences of a language’ (Trask 2000: 15), i.e. the pattern of treatment of subjects and direct objects, referring to the distribution of morphological markers or of syntactic, semantic or morphological characteristics. Perhaps the most commonly known classification of languages is nominative-accusative alignment (henceforth accusative alignment) or ergative alignment. The difference between them is that the subjects in transitive and intransitive constructions are treated identically in accusative alignment, while the subject in intransitive constructions and the direct object in transitive constructions are in ergative.<sup>1</sup> However, there is another less known

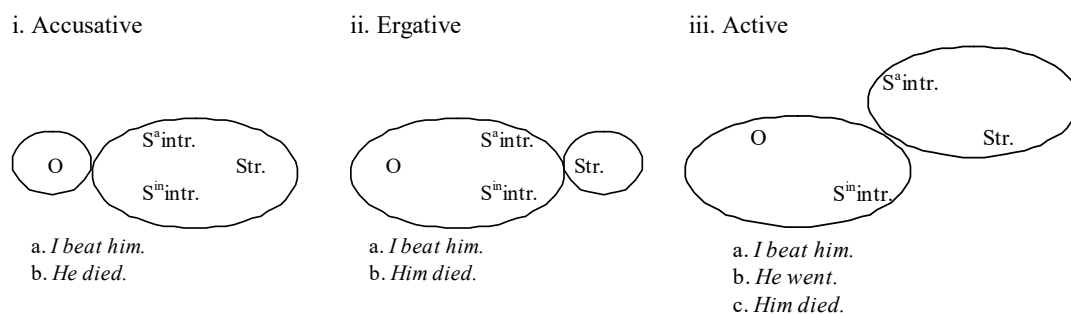
---

\* This paper has benefited from comments by William Croft, Gregory Anderson, Donncha O’Croinin, Maireád Bates and Melisa Mustafović. None of these people are responsible for any errors of fact or method that may be found here. Abbreviations used in this paper: ACC, accusative; DAT, dative; FEM, feminine; GEN, genitive; MASC, masculine; NEUT, neuter; NOM, nominative; SG, singular.

<sup>1</sup> The transitive-intransitive distinction here is based on the syntactic one. However, there are further issues on transitivity, to which we come back later in Section 3.1.

alignment, i.e. active alignment, which plays an important role in the historical development of many languages. It may seem as if this alignment existed only in the past, but it still exists varying degrees in some languages today. Active alignment is analysed next, especially in relation to the history of IE languages, in particularly English.

2.1. ACTIVE ALIGNMENT. Scholars, such as Klimov (1972, 1973, 1974), Sapir (1917: 86), Anderson (1971: 51-3) and Blake (1994: 125-6), claim that a different system exists apart from that which is most well-known (i.e. accusative and ergative), which is known as active alignment.<sup>2</sup> This alignment splits the intransitive subject into two groups, often the active-cum-pseudo-transitive subject and the stative/inactive-cum-transitive object. Therefore, it has been named as a split-intransitive language or split-S language (Dixon 1979: 80-5). This type of alignment has sometimes been considered under the label of ergative alignment (cf. Lyons 1968: 356-7), but this distinction is inaccurate, since it is not exactly the same as ergative alignment. Each type is schematised below in order to highlight the difference. The circle around different argument type indicates the alignment pattern, and the basic distinction is also exemplified with the English pronominal system.



Keys: Str. = transitive subject; O = transitive object; S<sup>a</sup>intr. = active/dynamic intransitive subject; S<sup>i</sup>intr. = inactive/stative intransitive subject

Figure 1 Schematic representation of alignment types

What is not conventional here is the division of the intransitive subject into two types. This affects the active, but not the accusative or ergative alignment. What is peculiar about the active alignment is that the distinction based on the stative/dynamic or active/inactive distinction is made within the intransitive verbs and the subject of the stative intransitive and the object of the transitive share the same grammatical case marking. The majority of world languages can be classified as one of these alignments, but at the same time, there are a number of languages which show a mixture of them known as alignment split. See Dixon (1994: 78-104) for various examples.

What alignment can indicate is that these features tend to cluster together differently according to language type. For example, active-inactive alignment is most likely to be made on the verb, while absolutive-ergative alignment, on the noun. The nominative-accusative alignment can be shown on either verb or pronoun (Nichols 1992). This tendency of forming the cluster, when viewed from a diachronic perspective, can be considered an indicator of historical change, since such a tendency can hardly be considered as a historical accident. On the same point Harris and Campbell (1995: 281) also claims '[t]he fact that these changes [alignment changes, such as from active-inactive to nominative-accusative] are not random, but can rather be generalized, strongly suggests that they are not accidental gaps.'

<sup>2</sup> Palmaitis (1988: 289) makes a valuable suggestion that the term 'fientive' should be used instead of 'active' in describing active alignment in order to avoid the confusion between 'active' in active-passive voice dichotomy and in active languages. We, however, retain active, since this term is more widely used in literature.

Relationships in sentences of active alignment are, therefore, ‘determined by alignment of items of comparable sets – animate nouns with active verbs, inanimates with statives – rather than by government’ (Lehmann 1989: 231). However, it is not unusual that some of the features shown above are not applicable to certain active languages in present day and these features, in a way, seem to function as a measurement for gradience between more prototypical active languages (in historical term, PIE, and synchronically, Georgian may be the closest to the prototypical active language) and partial one (most languages known as active languages in present day. See Aronson 1977: 213-5; Harris and Campbell 1995: 255-8 for similar argument). This partial alignment can be considered as a natural result of historical development, since ‘[i]t is a commonplace of historical linguistics that changes leave residue’ (Harris and Campbell 1995: 261). In addition, those who favour the use of alignment (cf. Nichols 1992: 10-11) claim that the clustering of features allows us to clarify the temporal and geographical distribution and the generic stability associated with great time depths: for example, word order tends to be consistent in areas, though not families, while the alignment conversely is genetically stable and not very susceptible to geographic area (Nichols 1992).<sup>3</sup>

According to Klimov, (1977: chap. 3, as summarised in Nichols 1992: 9-10), languages which display active alignment are considered to possess typically the following grammatical features:

- (1) Lexical properties:
  1. Binary division of nouns into active vs. inactive (often termed *animate* and *inanimate* or the like in the literature).
  2. Binary division of verbs into active and inactive.
  3. Classificatory verbs or the like (classification based on shape, animacy, etc.).
  4. Active verbs require active nouns as subjects.
  5. Singular-plural lexical suppletion in verbs.
  6. The category of number absent or weakly developed.
  7. No copula.
  8. “Adjectives” are actually intransitive verbs.
  9. Inclusive/exclusive pronoun distinction in first person.
  10. No infinitive, no verbal nouns.
  11. Etymological identity of many body-part and plant-part terms (e.g., “ear” = “leaf”).
  12. Doublet verbs, suppletive for animacy of actant.
  
- (2) Syntactic properties:
  13. The clause is structurally dominated by the verb.
  14. “Affective” (inverse) sentence construction with verbs of perception, etc.
  15. Syntactic categories of nearer and farther object rather than direct and indirect object.
  16. No *verba habendi*.
  17. Word order usually SOV.
  18. Direct object incorporation into verb.

---

<sup>3</sup> Languages with active alignment show some pattern: Amerind languages are spoken in North and South America except Canada, Caucasian languages in Caucasus (now mainly Russia and Georgia). Thus, these languages are genetically related, although they are also geographically restricted. However, there seem to be some more, which are not similar to these languages: several languages from Papua-New Guinea and Ket (language isolate) from Siberia (p.c. Gregory Anderson), which also show partial characteristics of active languages. These exceptional languages do not really follow the statement by Nichols.

- (3) Morphological properties:
19. The verb is much more richly inflected than the noun.
  20. Two series of personal affixes on the verb: active and inactive.
  21. Verbs have aspect or Aktionsarten rather than tense.
  22. The noun has possessive affixes.
  23. Alienable-inalienable possession distinction.
  24. Inalienable possessive affixes and inactive verbal affixes are similar or identical.
  25. Third person often has zero affix.
  26. No voice opposition (since there is no transitivity opposition). Instead, there can be an opposition of what is called *version* in Kartvelian studies (roughly, active vs. middle in the terminology of Benveniste 1966, or an opposition of normal valence vs. valence augmented by a second or indirect object, or an opposition of speech-act participant vs. non-participant in indirect-object marking on the verb).
  27. Active verbs have more morphological variation or make more morphological distinctions than inactive verbs.
  28. The morphological category of number is absent or weakly developed.
  29. There are no noun cases for core grammatical relations (no nominative, accusative, genitive, dative). Sometimes there is an active/inactive case opposition.
  30. Postpositions are often lacking or underdeveloped in these languages. Some of them have adpositions inflected like nouns.

These features are collective characteristics of what we can find in languages known to display active alignment, as opposed to nominative-accusative or ergative ones. Nichols (1992: 9-10) considers these features as distinctive, interesting, and testable properties, but warns us that Klimov is familiar with languages of Eurasia and this may indicate that these features are more typical area features of languages rather than pure typological comparisons. Therefore, various features shown in the list are by no means definitions of active language.

2.2. PIE AND ITS DAUGHTER LANGUAGES. The nominal distinction into active and inactive has been considered a typical characteristic of active alignment (cf. Klimov 1974, 1977; Lehmann 1993: 213-7), but Gamkrelidze and Ivanov (1995) go even further, claiming that the active characteristics in PIE originated from the binary classification of nouns into active and inactive and they demonstrate various reconstruction (ibid.: 233-76). In their view, the binary nature of noun influences the entire grammatical organisation: the active nouns are marked with *\*-os* ending, and inactive, with *\*-om* and this in their view is the source of various characteristics such as genitive, accusative case marking, adjectival declension, etc. The nominal distinction also involves the binary nature of grammatical features such as alienable vs. inalienable possession, inclusive vs. exclusive in pronominal. Also, this binary nature influenced the verbal category, i.e. verbal inflection was determined according to the nature of verb.

A distinction between active and inactive nouns can be best observed in the nominative and accusative case marking (Gamkrelidze and Ivanov 1995: 236-38), i.e. *\*-os* (nominative) and *\*-om* (accusative). Accusative case, thus, can be achieved by replacing the nominative marker *\*-os* or *\*-s* with accusative marker *\*-om*. Thus, PIE: *\*t'ent<sup>h</sup>-s* 'tooth (NOM)', *\*t'ent<sup>h</sup>-m* (ACC); *\*p<sup>h</sup>et'-s* 'foot (NOM)', *\*p<sup>h</sup>et'-m* (ACC), Hittite: *Howi-s* 'sheep (NOM)', *\*Howi-m* (ACC); *swesor-s* 'sister (NOM)', *swesor-m* (ACC), Sanskrit: *bāhúh* 'hand (NOM)', *bāhúm* (ACC); *dātā* 'giver (NOM)', *dātāram* (ACC), Latin: *lupus* 'wolf (NOM);

*lupum* (ACC); *equus* ‘horse (NOM)’, *equum* (ACC), etc. This coincides with the nominal endings based on the animacy distinction, i.e. the accusative case can be considered associated with inanimate entity which lacks ability to act. As for the inactive nouns, the accusative ending in PIE is sometimes identical with the nominative ending,<sup>4</sup> i.e. PIE *\*yuk’-om* ‘yoke (NOM, ACC)’ and Sanskrit *yugám*, Greek *zugón*, Latin *iugum*, Hittite *iukan*, Old Church Slavonic *igo*. Thus, it is possible to claim that earlier languages consider active noun class to be the only actor and the inactive class, the only undergoer. When an active noun acts on another active noun, there is a special marking on the undergoer active noun to make it inactive. This point will become much clearer when we see the verbal system below.

As we have seen so far, basic grammatical systems are organised based on the binary system of nominal classification into active and inactive. The verbal system in PIE follows suit (ibid.: 254-67). In Modern IE languages, it is common to find transitive-intransitive distinction, but this is a much later development. The basic organising system in PIE is aspectual difference, i.e. stative and dynamic. This reflects the nominal distinction, i.e. active nouns can act on their own, and they are commonly considered as dynamic, while inactive nouns, which cannot act on their own, are treated as stative. In some cases, the same event can be considered both active and inactive and this is expressed by different verb stems. In the following examples, the first instance is inactive, and the second, active, e.g. PIE *\*es-* ‘be’/*\*b<sup>h</sup>uH-* ‘be’; *\*ses-* ‘lie, sleep’/*\*k<sup>h</sup>ei-* ‘lie’; *\*st<sup>h</sup>-aH-* ‘stand’/*\*or-* ‘stand’; *\*es-* ‘sit’/*\*set-* ‘sit’, etc. Bader (1976: 108) also notes that some of such instances, like *\*es-* ‘be’, *\*ei-* ‘go’, *\*(a)u-* ‘see’, *\*et-* ‘eat’, *\*ek<sup>h</sup>o-* ‘drink’, etc. were originally inactive, but later shifted to active.

Some syntactic structures, such as possession and emotion, are often used as a sign of active alignment in PIE (cf. Kuryłowicz 1964; Lehmann 1989, 1999). The possession in PIE (ibid.: 250-1) was expressed periphrastically, i.e. ‘NP in dative (possessor) + NP in nominative (possessed) + *\*es-* ‘be’’. Examples of its daughter languages are shown below:

Latin  
 (4) mihi aliquid est  
 I.DAT something.NOM is  
 ‘I have something.’ (lit. ‘to me is something’)

Classical Greek  
 (5) estí soi khrusós  
 you.DAT is gold.NOM  
 ‘You have gold.’ (lit. ‘to you is gold’)

There was no lexical verb ‘have’ in PIE, and its emergence is considered to have been much later. Lehmann (1997: 57), for example, claims that the verb ‘have’ in various daughter languages of PIE was independently adapted after the firm establishment of various characteristics of nominative-accusative language. The origin of ‘have’ is considered to have the meaning ‘hold’, e.g. Hittite *hark-* ‘hold’, Latin *arceo* ‘hold, retain’, Greek *ékho* from PIE *\*seǵ<sup>h</sup>-* ‘hold’.<sup>5</sup>

<sup>4</sup> Even among Modern IE languages, similar patterns can be found. Consider, for example, the following example from Serbo-Croatian: *sin* ‘son (MASC.NOM)’, *sinu* ‘son (MASC.ACC)’, *žena* ‘woman (FEM.NOM)’, *ženu* ‘woman (FEM.ACC)’, *brdo* ‘high hill (NEUT.NOM, ACC)’. There is a morphological differentiation of nominative and accusative in masculine and feminine, but not in neuter. This can be considered a reflection from PIE active-inactive distinction. See Savčenko (1967: 74-86) for a similar view.

<sup>5</sup> However, the origin of Gothic *haban* is still disputed. Lehmann (1986: 167; 1989: 237-38) notes that Gothic *haban* can be phonologically related to Latin *capio* ‘seize, take, accept’ as well as to Latin *habeo* and the precise source is hard to determine. He (1989: 238) also claims that ‘have’ in earlier Germanic may represent a

The semantic categories of any sensation are considered directed towards their recipient, i.e. experiencer and this ‘towardsness’ can be considered as a type of directionality. The nominal with dative case is restricted to animate nouns and the occurrence of verb of perception with dative subject seems to be a natural result of directionality and animacy restriction on experiencer. Some examples from ancient languages (taken from Gamkrelidze and Ivanov 1995: 249-50) are shown in (6) and (7). This type of construction is often not restricted to PIE and preserved in much later daughter languages (cf. Lehmann 1991; Bauer 1998).

Hittite

- (6) [kued]aniikki    meerzi  
 someone.DAT    disappear  
 ‘Someone disappears.’ (lit. ‘disappears in relation to someone’)

Latin

- (7) mihi    displicet  
 I.DAT    dislike.3SG  
 ‘I dislike.’ (lit. ‘to me dislike’)

The descendant of PIE may still preserve the impersonal verb construction to the present day, but in varying degrees. For example, Bauer (1998: 96) notes that ‘[i]n Germanic, Italic and Slavic languages the impersonal verb is well represented, but it is much less widespread in Greek and Sanskrit.’

These various features are the result of careful reconstruction work by Gamkrelidze and Ivanov and although there have been a number of works claiming that PIE is actually active language providing partial evidences, they successfully provide convincing evidence and lay out the path of historical changes most convincingly. According to their interpretation, PIE was a typical case of active language and this language characteristics changed into various different systems, like nominative-accusative or ergative, in its daughter languages. Gamkrelidze and Ivanov (1995) firmly assume that the active alignment is one of the original characteristics in Modern IE languages and the change of direction is from active to either ergative or nominative-accusative. The stage from active to nominative-accusative or ergative is considered a different, rather arbitrary, ‘packaging’ or ‘clustering’ of various grammatical features in each language. However, this different way of viewing languages happened after the change of nominal-based organisation (as in the active language, where nominal binary distinction plays the basic organisation role) into verb-based one (i.e. transitive vs. intransitive). Gamkrelidze and Ivanov (1995: 271) consider that the shift was from more concrete (nominal distinction) to more abstract (verbal distinction) form opposition. The opposition in terms of transitive vs. intransitive binary verbal system directly entailed the appearance of subject-object relationship, involving distinction of arguments which functioned as subject or object of the action. Thus, when the subject-object relationship became more crucial than nominal binary system, some languages took the option of nominative-accusative alignment, while others, an ergative one. In their view, the change from active to either nominative-accusative or ergative alignment must have begun at the early stages of PIE, ‘since Indo-European at the period of the breakup can be reconstructed as an essentially accusative language [alignment, J.T.] with a few obvious structural traces of the active type’ (ibid.: 273).

---

conflation of reflexes of the two PIE roots *kap-* and *ghabh-*, but the evidences for such claim are poorly preserved.

We have seen in this section how PIE can be reconstructed as a language with active alignment, and how we can interpret the developmental path from PIE to modern IE languages. As Gamkrelidze and Ivanov (1995: 273) note, there are some residues of earlier active constructions in Indo-European languages. Various characteristics of active alignment, thus, seem to be partially present at the synchronic level, or in other words, there are a number of languages which exhibit partial alignment. This partialness seems to indicate that various grammatical features presented above can function as a measurement to produce gradience of active language, having prototypical one to one end and the partial one at the other. The fuller characteristics are difficult to find synchronically, but some historical data suggest that PIE actually displayed active alignment. Scholars like Gamkrelidze and Ivanov (1995), Lehmann (1993, 1997, 2002) successfully reconstruct various active characteristics in PIE and indicate possible developmental paths from active to nominative-accusative or ergative alignment. In the following section, we review their account of reconstruction.

**3. ENGLISH GRAMMAR IN TERMS OF ALIGNMENT.** In terms of alignment, English has traditionally been considered to possess accusative alignment, whether the period in question is OE or PDE. However, there are various constructions or grammatical behaviours which only existed earlier in the history of English. The alignment in the study of English grammar has not been questioned at all, although there are various features that indicate that it is not a purely accusative one.

**3.1. ACTIVE ALIGNMENT IN EARLIER HISTORY OF ENGLISH.** Earlier in (1) to (3) we have seen 30 properties commonly found in the active alignment. Out of them, the following seven fit in the description of OE grammar.

- (8) 6. The category of number absent or weakly developed. (Lexical properties)
- 13. The clause is structurally dominated by the verb. (Syntactic properties)
- 14. “Affective” (inverse) sentence construction with verbs of perception, etc. (Syntactic properties)
- 17. Word order usually SOV. (Syntactic properties)
- 19. The verb is much more richly inflected than the noun. (Morphological properties)
- 26. No voice opposition (since there is no transitivity opposition). Instead, there can be an opposition of what is called *version* in Kartvelian studies (roughly, active vs. middle in the terminology of Benveniste 1966). (Morphological properties)
- 28. The morphological category of number is absent or weakly developed. (Morphological properties)

These properties exist as merely a small part of 30 properties, but when it is compared to properties in PDE grammar, as shown in (9), the difference is obvious, since PDE satisfies only two properties.

- (9) 13. The clause is structurally dominated by the verb. (Syntactic properties)
- 19. The verb is much more richly inflected than the noun. (Morphological properties)

The development from active to accusative alignment is often associated with the emergence of transitivity: active alignment organises the clause in terms of aspect, but accusative, transitivity. Such a developmental path can clearly be seen in the development of

the impersonal verb. It was present until around 1600. The subject of this construction is commonly found in dative, but there are some variations. The following three patterns (cf. Denison 1990: 140-1) are what can be most commonly found regardless of the period:

- (10) Type i:  
 DAT/ACC – GEN/ACC/PP – V – Clause  
 ‘experiencer’ ‘cause’ ‘neutral’ ‘clause’
- Type ii:  
 NOM – DAT/ACC – V – Clause  
 ‘cause’ ‘experiencer’ ‘neutral’ ‘clause’
- Type iii:  
 NOM – GEN/PP – V – Clause  
 ‘experiencer’ ‘cause’ ‘receptive’ ‘clause’

Chronologically, however, the dative experiencer, i.e. type i and type ii, are older and the nominative is a later development. This may be partly aided by the loss of case marking system in English, but earlier dative subject represents the experiencer as a mere recipient of sensation, to which sensation is directed. When transitivity overtook the aspectual distinction, the construction was unified into a single pattern, i.e. nominative subject.

Another issue concerning the transitivity is the voice system. English did not have the passive earlier, and it emerged during the IME period (cf. Toyota 2003). The lack of the passive earlier is inevitable, since the passive requires the high transitive clause. The term transitivity is normally used very loosely in linguistic theory, and at least two types can be identified. One type is semantic transitivity, and the other, syntactic transitivity. The semantic one is concerned with the transfer of energy from one entity (actor) to another (undergoer). The syntactic one is only concerned with whether the direct object is present (transitive) or absent (intransitive). Alternatively, transitivity can be viewed in continuum, as proposed in Lakoff (1977) or Hopper and Thompson (1980). What we are concerned with here is the outer cause, so the semantic transitivity is more crucial than syntactic one. According to this type of transitivity, when a lexical verb is transitive, such as a verb of creation or destruction (cf. Kozinsky 1980; Testelec 1998), the passivisation is more easily done. Kittilä (2002: 23) rightly points out this correlation of the passive and transitivity as follows:

Passivization makes it in many (but not all) cases possible to separate transitive clauses from less transitive ones, since ... only clauses conceived of as somehow transitive are to be passivized in many languages. The acceptability of passivization correlates to some extent with transitivity: the more transitive a clause is, the more readily it can be passivised (see, for example, Lehmann 1991: 224f and Rice 1987).

So once the clause is interpreted as the passive, that clause needs not only the recipient of outer cause, i.e. undergoer, but also a presence of outer cause, i.e. actor (whether it is present or absent). Note that this makes the passivisation of perception verbs difficult, since the transitivity is not so high in this construction. In addition to the stativity, the perception verb also creates the condition for the passivisation even harder.

So there seem to be some changes with regard to the alignment. This can be proven by various features such as the emergence of the transitivity. In what follows, we concentrate on the word order change and discuss it as a piece of evidence for the alignment change.



**3.2. EVIDENCE FROM WORD ORDER CHANGE IN ENGLISH.** As we have seen earlier in the property 17 in (2), the word order of active language is likely to be SOV (Subject-Object-Verb) and PIE also follows suit. Some scholars claim that this is a statistically preferred word order cross-linguistically. For example, Dryer (1992) compares the order of verb and object cluster (OV or VO) based on 24 pairs of elements, such as noun and demonstrative, verb and manner adverbials, copula and predicate, noun and relative clause, verb and auxiliary, etc. When he incorporates the subject in his analysis, i.e. the order of verb-object cluster and subject-verb cluster, his sample languages provide the following result (ibid.: 105):

	Type of order	Number of languages in the sample
i.	OV and SV	132
ii.	OV and VS	3
iii.	VO and SV	62
iv.	VO and VS	45

Table 1. The word order between verb-object cluster and subject (adopted from Dryer 1992: 105)

This result indicates that the type i is the most frequent pattern and type ii, the least frequent one. The SOV order belongs to the type i, and thus, the SVO order (i.e. type iii) is much less frequent than the SOV order (i.e. type i) in world languages.<sup>6</sup> In contrast to Dryer (1992), William Croft (p.c.) considers (somewhat speculatively) that if very large, but historically shallow Bantu and Austronesian families are included, the distribution of SOV and SVO word order in world languages are more or less in balance synchronically.<sup>7</sup> However, the rigidity of SOV and SVO order has to be taken into account, since the basic word order can be relatively loose in some languages and this affects the dominant word order. Thus, such looseness makes its status as ‘basic order’ less reliable.

For the emergence of SOV word order and its change into VSO or SVO, Givón (1979: 271-309) argues that this is due to the cognitive salient of arguments, i.e. the sequence represents the order of salience or topic/focus nature of arguments at the earlier stage of human language. ‘SOV did not rise as pragmatic word order in the context of multi-functional discourse of the type currently evident in human language. Rather, it reflects the AGENT-OBJECT/GOAL lexicalization of an earlier stages’ (ibid.: 308-9). However, Givón suggests that SOV is bound to change into VSO or SVO, since the environment of language use has changed. In his words (ibid.: 309):

Whatever evidence we have about the factors motivating the drift from SOV to VSO and SVO (Hyman 1975; Vennemann 1973; Stockwell 1977; Givón 1975, 1977) suggests that the factors are *discourse-pragmatic* in nature, involving various topicalisation and focusing movement rules. The AGENT-OBJECT-VERB may have been the most suitable word-order at the stage of monopositional discourse, but somehow it seems that either SOV or V-first are more compatible with topic-oriented, multipositional discourse. Such

<sup>6</sup> The word order commonly discussed in literature may be VSO, SVO and SOV and Greenberg (1963) is probably the first scholar to use this convention in describing the word order. However, later works such as Keenan (1979), Derbyshire and Pullum (1981; 1986) suggests further types, i.e. VOS, OVS and OSV. See also Dryer (1997) for this six-way distinction of word order. Dryer, in stating the result in table 7, does not exclude the possibility of VOS, OSV or OSV orders. Thus, type i. in theory involves SOV and OSV, type iv., VSO or VOS. However, there was no specification as to this order distinction.

<sup>7</sup> Indeed, among Dryer’s 625 sample languages, there are eleven Bantu languages and fifteen Austronesian languages. They together consist only 4.2% of all sample languages and this fact is well represented in the result in Table 1.

discourse involves recurrent (topical) agents as well as patients' (emphasis original).

William Croft (p.c.) claims that the best documented word order change is from SOV to verb initial or SVO. The dominant pattern of word order change, however, depends in part on how we view the human language. If one considers that the modern human language is as recent as 50,000 to 100,000 years old, then it seems plausible to assume that the earliest human language had SOV. It is unfortunately hard to prove this view and it may be a historical accident of time. Also, it is important to note that it is less rigid SOV languages that moved to a freer word order and shifted to verb initial or SVO (cf. Hopper and Traugott 1993: 51). The opposite pattern of change, i.e. from SVO to SOV, is not well-documented, although Mande languages in the Niger-Kordofanian family may have done so.

Similarly, Li and Thompson (1976) consider that the word order change is related to topicality and its realisation in a clause or in their term, topic- and subject-prominence. Their main argument can probably be summarised in the following quote (ibid.: 459):

According to our study, there are four basic types of languages: (i) languages that are subject-prominent (a term introduced by E. L. Keenan); (ii) languages that are topic-prominent; (iii) languages that are both subject-prominent and topic-prominent; (iv) languages that are neither subject-prominent nor topic-prominent. In subject-prominent (Sp) languages, the structure of sentences favours a description in which the grammatical relation subject-predicate plays a major role; in topic-prominent (Tp) languages, the basic structure of sentences favours a description in which the grammatical relation topic-comment plays a major role. In type (iii) languages, there are two equally important distinct sentence constructions, the subject-predicate construction and the topic-comment construction; in type (iv) languages, the subject and the topic have merged and are no longer distinguishable in all sentence types.

Once this classification is put in the diachronic perspective, they consider that languages shift types between type i and ii, involving intermediate stages type iii and iv. They (ibid.: 485) formulate the diachronic change in the following schema:

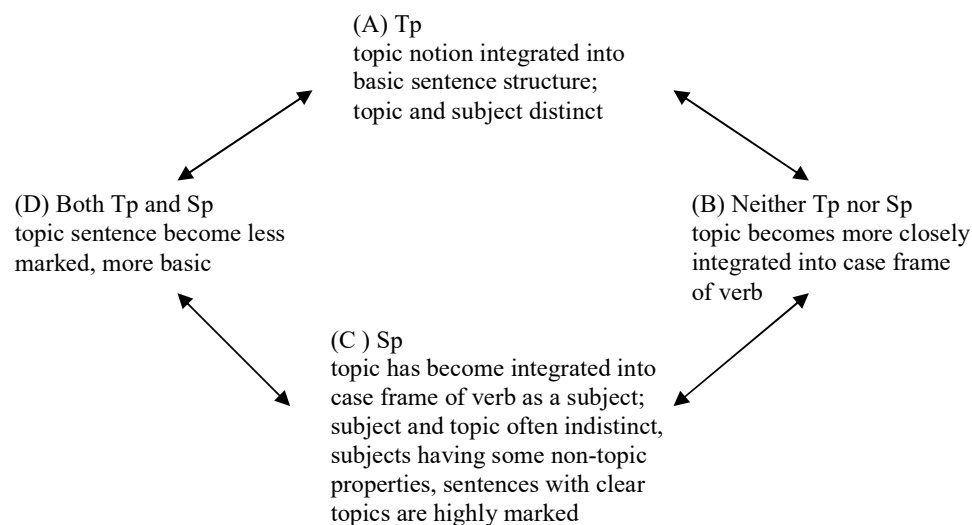


Figure 2 Diachronic change of topic- vs. subject-prominence, adopted from Li and Thompson (1976: 485)

When, for example, a language develops a system of topic- to subject-prominence, the grammaticalisation of topics into subjects happens. Such developmental path can be found in PIE, as argued in Lehmann (1976: 450). However, Lehmann's claim may require further comments: PIE seems to have been more topic-prominent language, but the change to subject-prominent type is better considered to have happened in its daughter languages. For example, Old Hittite seems to be still sensitive to topic prominence and it employs various conjunctions which indicate the topical relationship between sentences, i.e. 'accented connectives and *-a-* mostly indicate continuity, whereas *-ma-* indicates discontinuity; asyndeton has a position in between, and is found in specific contexts both with continuity and with discontinuity' (Luraghi 1990: 88).<sup>8</sup> Such grammatical devices are not likely to be found in, say, older Germanic languages such as OE, and this indicates that the topic-prominence is still present in PIE and as late as in Hittite but disappears later.

Scholars like Lehmann (1976) argue that the shift between topic- and subject-prominence and the word order change are in fact related: he argues that in the case of IE languages, the shift from OV to VO word order is the motivation for the shift from topic- to subject-prominence. Burridge (1993: 161-73), for example, following Lehmann's argument, claims that features like the use of dummy subject, personal pronoun subject, special indefinite subject (i.e. *men* 'one') in Middle Dutch became compulsory in order to keep the V2 order. However, the claim that the word order is the motivation for the prominence shift does not seem so convincing, since the prominence shift can indeed be the motivation for the word order change or perhaps they can influence each other, too. Considering the language particular case of English, if the word order is the motivation, it may be plausible to assume that the subjectless construction as shown in (11) came to have the subject compulsorily<sup>9</sup> due to the emergence of SVO order.

- (11) þær mæg nihta gehwæm niðwundor seon  
 there may of.nights every horror.marvels see  
 'There one can see marvels of horror at night.' (*Beo* 1365)

However, it has been the case that the clause initial entity is more topical in English, as in constructions like inversion (cf. Birner 1994, 1995; Ward and Birner 1995). In PDE, the grammatical subject tends to be the most topical argument and if non-subject entity is topical, some marked constructions, such as cleft, are used. The semantic characteristics of subject (i.e. high topicality) and the topic assignment in the clause seem to coincide, but since the position of the subject was relatively free earlier, it is plausible to think that the subject-prominence forced the subject to be placed in the most topical position in the clause. Another such case can be found in the 'personalisation' of impersonal verbs.

In spite of some ambiguity as to the direction of influences, the notion of topic- and subject-prominence seems to be quite useful. According to this characteristic, earlier English is a more topic-prominent language. This seems to be true, since, as we will see in detail below, there is no rigid word order earlier and the most topical slot in a clause has been the clause initial in English since OE and this slot does not have to be filled with the subject

<sup>8</sup> Luraghi (1990: 49-59) lists various conjunctions: additive conjunctions *nu*, *ta* and *su* (events follow naturally); adversative conjunction *-ma-* (discontinuity, contrary to expectation); *-a-* (weak counter expectation); coordinating conjugation *-(y)a-* (mere marker of syntactic relation or coordination); asyndon *-nu-* (strictly coordinated events).

<sup>9</sup> Previous works, such as Goossens (1987) and Warner (1990), claim that such instances involve a particular class of raising verbs. This point is further analysed in Westvik (1994), who claims that 'the modalized nominativeless sentences should be analyzed as structures where a non-finite sentence with a lexically empty subject position has been embedded under the modal' (ibid.: 340). However, they do not incorporate the topic or subject prominence in their argument.

(stage (A) in Figure 2). In addition, the presence of subject was not obligatory earlier (cf. Traugott 1992) and instances like (17) above can be observed earlier. During ME, the word order started to be fixed as SVO. At this stage, the subject became an obligatory entity and integrated with the topic of the clause (stage (C) in Figure 2), due to the fact that it is located at the clause initial. In this sense, earlier English can be considered to possess partial characteristics of ancestral languages such as PIE, where the topic-prominence was an important factor in clause organisation.

The basic word order of PDE is doubtlessly SVO, whether it is a main clause or a subordinate clause. The word order of earlier English, however, cannot be defined so simply. It is probably often cited that SOV is the basic order in OE and eME. Bammesberger (1992: 60) claims that the OV order is unmarked order in OE, although he admits the presence of order VO at the same period. Also, recent approaches assume that the subject position is not so significant in considering the basic word order (therefore, Bammesberger's claim only refers to OV or VO orders without S). Traugott (1992: 273-81) points out the importance of verb-second order (V2). Typical V2 order clause has an initial constituent, typically an adverb, followed by finite verbs and the subject position can be before or after the verb. Thus, in (12) below, the subject *Hi* 'they' comes before the finite verb *habbað* 'have', but in (13), the subject *sum broðor* 'one brother', after the finite verb *wæs* 'was'.

- (12) **Hi habbað** mid him awyriedne engel, mancynnes feond and  
 they have with them corrupt angel mankind's enemy and  
 se hæfð andweald on ...  
 that.one has power over ...  
 'They have with them a corrupt angel, the enemy of mankind, and he has power over...' (*ÆCHom* II, 38 283.113)

- (13) In ðeosse abbudissan mynstre **wæs sum broðor** syndriglice mid  
 in this abbess' minister was a brother specially with  
 godcundre gife gemæred & geweorðad  
 divine gift celebrated and honoured  
 'In this abbess' minister one brother was especially proclaimed and honoured for having a divine gift.' (*Bede* 4 25.342.3)

Also, some recent approaches assume that the basic word order up to 1200 was V-final, up to 1400, V2 (p.c. David Denison). This is exactly the case in OE, but as noted in Fischer et al (2000: 51), we need to bear in mind the fact that 'even in Old English, there is a good deal of variant between OV and VO word orders.' OV order, however, seems to be dominant in the subordinate clause, as noted in Traugott (1992: 277). One such case is illustrated in the following example. Notice that the main clause has V2 order (*þa com* 'then came'), but the verb in the subordinate clause (i.e. *gegrette* 'greet') comes last, i.e. the order in subordinate clause is in general OV.

- (14) þa com þær gan in to me heofoncund Wisdom, & þæt  
 then came there going in to me heavenly Wisdom and that  
 min murnede mod mid his wordum **gegrette**  
 my sad spirit with his words greeted  
 'Then heavenly Wisdom came to me there and greeted my sad spirit with his word.' (*Bo* 3.8.15)

It is indeed arguable to consider the OE word order simply as OV, since, as Hopper and Traugott (1993: 51) explains, ‘there is no “ideal” OV or VO order language. Instead, there are languages which may have predominant OV or VO order, or which may exhibit properties of both. This is because coding is constantly in flux, and because there are competing motivations in creating discourse.’ As many scholars suggest, there was a variety in OE word order, and it was changing from one type to another. However, the change was not completed until IME and the newly established order was SVO. Judging from the order in the subordinate clause, where the previous order tends to be preserved (cf. Givón 1979: 83ff), we can claim that OV was the dominant or unmarked order prior to eME, while some variations existing alongside.

Some scholars suggest pragmatic motivations for the word order change in English: OE developed a tendency in which light forms as subject (i.e. phonologically short, often adverbials or pronominal elements) preceded the verb. Also, in spite of the gradual shift from verb final order, i.e. OV, when the object is pronominal, it always proceeds the verb (Traugott 1992: 276). This shows the increased sensitivity to the lightness of phrase during OE. Scholars like Strang (1970) claim that this sensitivity is the prime motivation for word order change. Others like Bean (1983), Vennemann (1974) argue that the change was triggered by the loss of subject and object inflection: when the inflection is lost, there is a possible ambiguity in deciding what element is the subject and object. This can be avoided by placing the verb between the subject and the object and this caused the word order change. Kemenade (1987) considers that the mixture of these two factors triggered the change.

The dominant word order in OE, i.e. SOV, is what we expect to find in active languages. This simply could well be a coincidence, since there are a number of languages with SOV basic word order, like Japanese, without a trace of active alignment earlier.<sup>10</sup> However, the SOV order in earlier English changed into SVO during ME. This, in our view, is not so surprising, since there are some older grammatical features which signal that OE has several relics of earlier active characteristics from PIE. Thus, along with other evidence shown in the following section, it is hard to consider that English has possessed the active alignment since OE, and the relics of older alignment system linger longer than previously thought.

**4. FURTHER EVIDENCE FOR ACTIVE ALIGNMENT IN ENGLISH.** As hinted earlier in Section 3.1, the emergence of transitivity can be a crucial clue in observing the development of English. In relation to this, we have seen the development of impersonal verb and the passive voice. However, there are a couple of other constructions, which have not been given enough attention. I discuss them collectively under the fluid-intransitive subject. Constructions in questions are often known as adjectival passive, e.g. *I am interested in linguistics*, *I am amazed at the scenery*, etc. The past participle in this construction behaves like adjective, although this construction seemingly has its active counterpart, i.e. *Linguistics interests me*, *The scenery amazes me*, etc. In terms of transitivity, the outer cause is not really volitional agent, but the cause exists. This construction should be distinguished from what appears to be a variation of the passive, such as *The shop is situated in the centre of town*, *The box is covered with dust*, etc. These examples are often termed passive, but due to the lack of outer cause, this should not be considered the passive (cf. Toyota 2002, 2003).

<sup>10</sup> However, Greenberg (2000), by analysing 72 grammatical elements such as locative markers, negative markers, interrogative markers, etc., claims that IE languages are part of much larger, what he calls, Eurasic family, including Uralic-Yukaghir, Altaic, Japanese-Korean-Ainu, Gilyak, Chukotian and Eskimo-Aleut. He admits that Japanese-Korean-Ainu may be a distinct subgroup of Eurastic, but his analysis could leave a possibility that older Japanese and PIE may be related at some point in the distant past. If this is so, this statement should be revised.

The fluid-intransitive subject may appear to be an active alignment, but it differs that the subject marking is not fixed. Instead, speakers can choose whether the subject is active or inactive. Dixon (1994: 78) defines this type as follows:

There is a fascinating group of languages which has syntactically based marking for transitive verbs – always marking [transitive subject] and [transitive object] in the same way for a given verb – but uses semantically based marking for intransitive verbs – with direct marking reflecting the semantics of each particular instance of use. ... In a [fluid-intransitive subject] language the [transitive subject]-type and [transitive object]-type markings are allocated to intransitive clauses semantically, with each intransitive verb having the possibility of either choice [between active and inactive intransitive subject], depending on the semantics of each particular context of use. In practice, some verbs refer to activities that are always likely to be controlled and these are always likely to be marked as [active intransitive subject]; other verbs refer to activities or states that are likely never to be controlled and these are always likely to be shown as [inactive intransitive subject]. But there will be many verbs in a middle region, referring to activities where there can be control or lack of control, and these may accordingly be marked either as [active intransitive subject] or [inactive intransitive subject].

For example, Holinsky (1987) analyses 303 intransitive verbs in Tsova-Tush (Caucasian), and found out that thirty one verbs appear only with inactive subjects, referring to uncontrollable state, such as ‘be hungry’, ‘tremble’, etc., and seventy eight verbs only with active subject, referring to controllable activities, such as ‘walk’, ‘talk’, ‘think’, etc. The remainder can take both active subject or inactive subject marking. For instance, a single verb root can be interpreted as ‘slip’ when used with inactive subject, and as ‘slide’ with active subject (Holinsky 1987: 125). In active alignment, this type of flexibility does not happen. However, as Dixon (1994: 83) rightly claims:

the syntactically based marking and semantically based marking types are idealisations, with many languages combining features of each. Nevertheless, most languages with a split conditioned by the semantic nature of the verb are either clearly [fluid-intransitive subject] or else clearly [active alignment]. It is not uncommon for a [active alignment] to have a handful of verbs that can take either [active subject] or [inactive subject] marking, but this is often a case of lexicalisation.

Toyota (in prep.) reveals that verbs like *amaze*, *interest*, etc., which often appear in the constructions in question, can occur in the active clause, but it happens rarely. It tends to occur in passive-like constructions. So the outer cause in these verbs is highly unlikely to be agentive, and this makes these verbs behave like a fluid intransitive subject construction. The passive-like construction behaves like an impersonal verb, expressing the perception. So the dative subject is replaced by the nominative one, but the perception, where the transitivity is somewhat ambiguous between transitive and intransitive, i.e. syntactically transitive but semantically intransitive, still prevents the proper transformation. In addition, PDE has a very ambiguous transitivity. Dixon (1994: 146 fn.3) claims that English has a fluid transitivity, meaning that the transitivity is not strictly applied to verbs, and some class of verbs, such as labile verbs and spray-load verbs, can be both syntactically and semantically intransitive/transitive. This may be related to the viewpoint of the speaker, i.e. the speaker

may consider one action as transitive, but others may not. Wierzbicka (1996: 410) claims that ‘we should constantly remind ourselves that the number of syntactic core arguments depends on the number of entities in the situation referred to, but on the manner in which the situation is conceptualized by the speaker, and that one cannot speak, for example, of a “transitive action” or “intransitive action”, because the same action may be viewed as “transitive” or “intransitive” depending on the point of view.’ This may explain the difference in these sets of verbs.

**5. CONCLUSION.** In this paper, we have analysed whether OE should be considered as a language with accusative alignment. There are several characteristics at least which can be considered a residue of ancient languages, as old as PIE, with active alignment. This indicates that the earlier grammar of English did have active alignment, although it was a partial one. The alignment in English at any time has been considered an accusative one and the argument proposed in this work suggests that there is another insight in the analysis of historical change of English.

Among the various changes, we focused on the word order change from SOV to SVO: around the time of the word order change, other residues of earlier active characteristics disappeared from English, although they still remain in some other IE languages. For example, impersonal verbs are still functional in a number of IE languages, but not in English. It was suggested that these changes are somehow related to the emergence of transitivity, which is a typical characteristic of accusative alignment. However, this does not mean that the transition to the transitivity-based grammar has been completed: on the contrary, there is a special class of verbs, which behave oddly seen from the common grammatical pattern in English.

Overall, the grammatical change of English can be better understood once the earlier grammar, especially the one of OE, is analysed in terms of active alignment. Surprisingly, some of the grammatical constructions of languages spoken 6,000 years ago still remain in modern IE languages. So it is little surprise that OE still preserved several of them.

## REFERENCES

- Anderson, John M. 1971. *The Grammar of Case: Towards a localist theory*. Cambridge: Cambridge University Press.
- Aronson, Howard 1977. English as an active language. *Lingua* 41.201-16.
- Bader, Françoise 1976. La présent du verb ‘être’ en indo-européen. *Bulletin de la société de linguistique de Paris* 71.27-111.
- Bauer, Brigitte L. M. 1998. Impersonal verbs in Italic: their development from an Indo-European perspective. *Journal of Indo-European Studies* 26.91-120.
- Bean, Marian C. 1983. *The Development of Word Order Patterns in Old English*. London: Croom Helm.
- Benveniste, Emile 1966. *Problèmes de Linguistique Générale*. Paris: Ballimard.
- Birner, Betty 1994. Information status and word-order: an analysis of English inversion. *Language* 70.233-59.
- Birner, Betty 1995. Pragmatic constraints on the verb in English inversion. *Lingua* 97.233-56.
- Blake, Barry 1994. *Case*. Cambridge: Cambridge University Press.
- Burridge, Kate 1993. *Syntactic Change in Germanic: aspects of language change in Germanic, with particular reference to Middle Dutch*. Amsterdam: John Benjamins.
- Denison, David 1990. Auxiliary + impersonal in Old English. *Folia Linguistica Historica* 9.139-66.

- Derbyshire, Desmond C. and Geoffrey K. Pullum 1981. Object initial languages. *Journal of Applied Linguistics* 47.192-214.
- Derbyshire, Desmond C. and Geoffrey K. Pullum 1986. Introduction. *Handbook of Amazonian Languages* (vol. 1), ed. by D. C. Derbyshire and G. K. Pullum, 1-28. Berlin: Mouton de Gruyter.
- Dixon, Robert M. W. 1979. Ergativity. *Language* 55.59-138.
- Dixon, Robert M. W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- Dryer, Matthew S. 1992. The Greenbergian word order correlations. *Language* 68.81-138.
- Fischer, Olga, Ans van Kemenade, Willen Koopman and Wim van der Wurff 2000. *The Syntax of Early English*. Cambridge: Cambridge University Press.
- Gamkrelidze, Thomas V. and Vjačeslav V. Ivanov 1995. *Indo-European and Indo-Europeans: a reconstruction and historical analysis of a proto-language and proto-culture (part 1): text*. (English version by Johanna Nichols). Berlin: Mouton de Gruyter.
- Givón, Talmy 1975. Serial verbs and syntactic change: Niger-Congo. *Word Order and Word Order Change*, ed. by Charles N. Li, 47-112. Austin: University of Texas Press.
- Givón, Talmy 1977. The drift from VSO to SVO in Biblical Hebrew: the pragmatics of tense-aspect. *Mechanism of Syntactic Change*, ed. by Charles N. Li, 181-54. Austin: University of Texas Press.
- Givón, Talmy 1979. *On Understanding Grammar*. New York: Academic Press.
- Goossens, Louis 1987. The auxiliary of English modals: a functional grammar view. *Historical Development of Auxiliaries*, ed. by Martin Harris and Paolo Ramat, 112-43. Berlin: Mouton de Gruyter.
- Greenberg, Joseph H. 1966. Some universals of grammar with particular reference to the order of meaningful elements. *Universals of Language* (2<sup>nd</sup> ed.), ed. by Joseph H. Greenberg, 73-113. Cambridge (Mass.): M.I.T. Press.
- Greenberg, Joseph H. 2000. *Indo-European and Its Closest Relatives* (vol. 1): grammar. Stanford: Stanford University Press.
- Harris, Alice C. and Lyle Campbell 1995. *Historical Syntax in Cross-Linguistic Perspective*. Cambridge: Cambridge University Press.
- Holinsky, Dee Ann 1987. The case of the intransitive subject in Tsova-Tush (Batsbi). *Lingua* 71.103-32.
- Hopper, Paul J. and Sandra A. Thompson 1980. Transitivity in grammar and discourse. *Language* 56.251-339.
- Hopper, Paul J. and Elizabeth Closs Traugott 1993. *Grammaticalization*. Cambridge: Cambridge University Press.
- Hyman, Larry M. 1975. The change from SOV to SVO: evidence from Niger-Congo. *Word Order and Word Order Change*, ed. by Charles N. Li, 113-47. Austin: University of Texas Press.
- Keenan, Edward 1979. The syntax of subject-final languages. *Syntactic Typology*, ed. by Winfred P. Lehmann, 3-55. Austin: University of Texas Press.
- Kemenade, Ans, van 1987. *Syntactic Case and Morphological Case in the History of English*. Dordrecht: Foris.
- Kittilä, Seppo 2002. *Transitivity: towards a comprehensive typology*. Turku, Finland: University of Turku Press.
- Klimov, Georgij A. 1972. K xarakteristike jazykov aktivnogo stroja. *Voprosy Jazykoznanija* 4.3-13.
- Klimov, Georgij A. 1973. *Očerkobščej teorii èrgativnosti*. Moscow: Nauka.
- Klimov, Georgij A. 1974. On the character of languages of active typology. *Linguistics* 131.11-25.
- Klimov, Georgij A. 1977. *Tipologija Jazykov Aktivnogo Stroja*. Moscow: Nauka.



- Kozinsky, Isaac Š. 1980. Nekotorye grammatičeskie universalii v podsystemax vyraženiija sub'ektno-ob'ektnyx otnošenij. Doctoral dissertation, MGU Moscow.
- Kuryłowicz, Jerzy 1964. *The Inflectional Categories of Indo-European*. Heidelberg: Winter.
- Lakoff, George 1977. Linguistic gestalten. *Chicago Linguistic Society* 13.236-87.
- Lehmann, Christian 1991. Predicate classes and participation. *Partizipation: Das sprachliche Erfassen von Sachverhalten*, ed. by Hansjakob Seiler and Premper Waldfried, 183-239. Tübingen: Gunter Narr.
- Lehmann, Winfred P. 1976. From topic to subject. *Subject and Topic*, ed. by Charles Li, 447-56. New York: Academic Press.
- Lehmann, Winfred P. 1986. *A Gothic Etymological Dictionary*. Leiden: Brill.
- Lehmann, Winfred P. 1989. Problems in Proto-Indo-European grammar: residues from pre-Indo-European active structure. *General Linguistics* 29.228-46.
- Lehmann, Winfred P. 1993. *Theoretical bases of Indo-European linguistics*. London: Routledge.
- Lehmann, Winfred P. 1997. Active language characteristics in Pre-Indo-European and Pre-Afro-Asiatic. *General Linguistics* 35.57-79.
- Lehmann, Winfred P. 1999. Towards a history of early Indo-European. *Diachronica* 16.67-95.
- Lehmann, Winfred P. 2002. Pre-Indo-European. *Journal of Indo-European Studies Monograph* 41.
- Li, Charles N. and Sandra A. Thompson 1976. Subject and topic: a new typology of language. *Subject and Topic*, ed. by Charles N. Li, 457-89. New York: Academic Press.
- Luraghi, Silvia 1990. *Old Hittite Sentence Structure*. London: Croom Helm.
- Lyons, John 1968. *Introduction to Theoretical Linguistics*. Cambridge: Cambridge University Press.
- Nichols, Johanna 1992. *Language Diversity in Space and Time*. Chicago: Chicago University Press.
- Palmaitis, Mykolas L. 1988. Review of *Indoeuropejskij jazyk i indoeuropejcy*, by Thomas V. Gamkrelidze and Vjačeslav V. Ivanov. *Indogermanische Forschungen* 93.280-92.
- Rice, Sally 1987. *Toward a cognitive model of transitivity*. Doctoral dissertation, University of California, San Diego.
- Sapir, Edward 1917. Review of *Het passieve karakter van het verbum transitivum of van het verbum actionis in talen van Noord-Amerika*, by C. C. Uhlenbeck. *Journal of American Linguistics* 1.82-86.
- Savčenko, A. N. 1967. Ergativnaja konstrukcija predloženija v praindoeuropejskom jazyke. *Ergativnaja Konstrukcija Predloženija v Jazykox Razlicnyx Tipov*, ed. by V. M. Zirmunskij & S. D. Kacnel'son, 74-90. Leningrad: Nauka.
- Stockwell, Robert P. 1977. Motivation for exbraceration in Old English. *Mechanism of Syntactic Change*, Charles N. Li, 291-314. Austin: University of Texas Press.
- Strang, Barbara 1970. *A History of English*. London: Methuen & Co. Ltd.
- Testelec, Yagov 1998. On two parameters of transitivity. *Typology of Verbal Categories: Papers presented to Vladimir Nedjalkov on the occasion of his 70<sup>th</sup> birthday*, ed. by Leonid Kulikov and Heinz Vater, 29-45. Tübingen: Max Niemeyer Verlag.
- Toyota, Junichi 2002. Lexical analysis of the Middle English passive constructions. *A Changing World of Words: studies in English historical lexicography, lexicology and semantics*, ed. by J. E. Díaz, Javier E., 572-610. Amsterdam: Rodopi.
- Toyota, Junichi 2003. *Diachronic Changes in the Passive: conceptual development and gradience*. Ph.D. thesis, University of Manchester.
- Toyota, Junichi in prep. *Fluid-Intransitive Subject in English*.
- Trask, R. Larry. 2000. *The Dictionary of Historical and Comparative Linguistics*. Edinburgh: Edinburgh University Press.

- Traugott, Elizabeth C. 1992. Old English syntax. *The Cambridge History of the English Language* (vol. 1): the beginning to 1066, ed. by Richard M. Hogg, 168-289. Cambridge: Cambridge University Press.
- Vennemann, Theo 1974. Topic, subject and word order: from SXV to SVX via TVX. *Proceedings of the 1<sup>st</sup> International Conference on Historical Linguistics, vol. 1: Syntax, morphology, internal and comparative reconstruction*, ed. by John Anderson and Charles Jones, 339-76. Amsterdam: North Holland.
- Ward, Gregory and Betty Birner 1995. Definiteness and English existential. *Language* 71.722-742.
- Warner, Anthony 1990. Reworking the history of English auxiliaries. *Papers from the 5<sup>th</sup> International Conference on English Historical Linguistics*, ed by Sylvia Adamson, Sylvia, Vivian Law, Nigel Vincent and Susan Wright, 537-57. Amsterdam: John Benjamins.
- Westvik, Olaf Jansen 1994. 'On the subject of some nominativeless sentences in Old Germanic.' *Language Change and Language Structure: Older Germanic languages in a comparative perspective*, ed. by Toril Swan, Endre Mørck and Olaf Jansen Westvik, 305-343. Berlin: Mouton de Gruyter.
- Wierzbicka, Anna 1996. *Semantics: Primes and universals*. Oxford: Oxford University Press.