OV-to-VO Word Order Change Reconsidered

Kenji Matsuse

Matsuse (2006) principally discussed the development of VO [Verb-Object] order in (especially, subordinate clauses of) English from the viewpoint of 'contact-induced grammatical replication' proposed by Heine & Kuteva (2005). In this article, then, I argue about the same word order issue again in terms of some other diachronic analyses: e.g. Croft (2006), Roberts (2007), Fischer (2007), etc. and claim that among them the syntactic/formal approach and the functional/pragmatic one should somehow be integrated, which Fischer tries to do, in order for us to plausibly account for the word order change. In addition, I also emphasize that the evolutionary view could support Fischer's theory fairly well.

key words : parametric change, grammaticalization, analogy, GAS (= Generalized Analysis of Selection), replication, equivalence

1 Introduction

Concerning the so-called 'O[bject]V[erb]-to-VO' word order change which occurred from the Old English (henceforth OE) period through the Middle English (ME) period, Brinton & Arnovick (2006: 218-222, 288-291) describe the word orders for the 'unmarked' declarative sentences as follows:[1]

(1) Main Clauses in OE:
 a. S[ubject]+ (Aux[iliary]) + V + O
 b. S + (Aux) + O pro[noun] + V[2]
(2) Subordinate Clauses in OE:
 Subordinating Conj[unction] + S + O + V
(3) Main Clauses in ME:
 S + (Aux) + V + O ['S + (Aux)+ O pro + V' order also occasionally attested]
(4) Subordinate Clauses in ME:
 Subordinating Conj + S + V + O [with sporadic remnants of 'S + O + V' order]

From these, two things are immediately clarified: (i) the existence of OV order in OE should mainly be discussed for the subordinate clauses, because in the main clauses it was constrained to such a large extent as seen in (1b), and (ii) we can not say that even in ME subordinate clauses VO order had completely been established. That the picture 'OV for OE and VO for ME' is too simplistic is also confirmed by van Gelderen (2006): 'the relatively free word order [in OE]' (pp. 68, 72)and '[t]he word order in Middle English is still relatively free' (p. 126); by Pintzuk & Taylor (2006: 272): '[t]he loss of OV order for all types of objects, ..., is the final outcome of several long-term changes which begin in the Old English period and continue until after the end of the Middle English, rather than any abrupt change in late Middle English'; and by Crystal's (2004: 102) statistics:

(5) *Parker Chronicle* (734-892)	*PC* (c. 900)	*Peterborough Chronicle* (1122-54)	*Ormulum* (1200)
SVO 30	26	51	62
SOV 35	44	17	14

N.B. *PC* = Alfred's *Pastoral Care* (= *Cura Pastoralis*)

It will, then, be useful to quote here a compact summary on this issue by Fischer & van der Wurff (2006: 186). Referring to Pintzuk (1988),[3]they write: '(late) OE allowed VO order in addition to OV order, perhaps with *some kind of competition* existing between the two variants. Initially, VO order may have been due to extraposition, but later it developed into a regular word-order option. It is certainly the case that VO order becomes more frequent in the course of the OE period, though the development is very gradual' (emphasis added). The idea that the two word orders were in competition seems to plausibly account for the situations in both the OE and the ME periods. Naturally, it will play a crucial role for the subsequent discussions developed in this paper.

Furthermore, it should be noted that Fischer & van der Wurff (2006: 187) point out as well that '*language contact* has also been held responsible for the decline of OV order', and it is 'by more *indirect influence from Scandinavian* (with a situation of *bilingualism* or perhaps even *pidginization* said to promote the use of VO order; ...)' (emphases added), where we see some key words to discuss as to the issue. Among them, 'language contact' is the basic and most important idea which underlies my various claims already presented in Matsuse (2000, 2001, 2004, 2005), and especially, Matsuse (2006) tried to account for the change to VO order in terms of 'contact-induced grammatical replication' which is proposed by and discussed in Heine & Kuteva (2005). Given that language contact has something to do with word order change at all, in particular, the contact with '(Old) Scandinavian (≒ Old Norse [ON])' in the Danelaw[4] has to be above all paid attention to, because there must have been, more or less, 'bilingualism' between the OE and ON speakers in the Danelaw or even 'pidginization/creolization' created from the two languages there,[5] from which what we call Northern English might have been born. Anyway, this issue is hardly said to have been settled; on the contrary, disputation seems to heat up more and more recently.

In this paper, therefore, the development of VO order in English will be discussed once again on the basis of the above key words, together with freshly proposed and fascinating diachronic analyses based on 'parametric change in Universal Grammar', 'grammaticalization', 'analogy' and 'evolutionary model'.

The present study is organized as follows. In the next section, the generative Principles-and-Parameters approach advocated by Roberts (2007) is examined. Then, Section 3, as a counterpart of the generative approach, discusses the functional one equipped with grammaticalization as its main explanatory mechanism. After looking through the two major approaches to language change, in Section 4, we consider the analogy-based learning mechanism for language suggested by Fischer (2007). Section 5 briefly reviews Croft's (2006) evolutionary model. And the last section presents summary and conclusion.

2 Parametric Change

Let us begin by browsing some key concepts of the generative framework in connection with the present word order issue which Roberts (2007: 449, 453, 456) concisely presents:

(6) **Inertia Principle:**
   the idea that, unless some force acts upon a grammatical system, it will not change. It may be interpreted as asserting that, in general, language acquisition converges successfully on the target system.

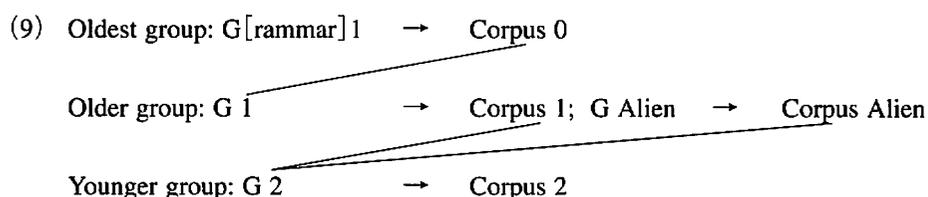(7) **Parameter of Universal Grammar:**
   a choice-point or open option in Universal Grammar. Parameters are the principal construct in the analysis of cross-linguistic variation, both synchronic and diachronic, in both minimalism and government-binding theory.

(8) **Universal Grammar (UG):**
   the theory of the human language faculty. Universal Grammar is usually thought to consist of invariant elements of various kinds, associated with a restricted domain of variation described by parameters.

As shown in (7) and (8) above, in the generative approach, UG and parameter-setting for it are regarded as the core of human language faculty, which are finally completed through acquiring the Primary Linguistic Data (PLD) as the input. Yet sometimes, as the Inertia Principle in (6) indicates, this process of acquiring grammar can more or less be altered

by some (especially, 'external') factors, among which the most typical will be 'contact with other language(s)'. So Roberts (2007) claims that it is possible that the OV-to-VO word order change in English has been brought about by UG formation where the new PLD, which was gained by way of contact with another language, sets the parameter for word order differently from that with the old PLD. In other words, 'imperfect learning of a second language by adults in a contact situation', as Roberts (2007: 385) explains, 'may affect the PLD of a subsequent generation and lead to contact effects of various kinds' (emphasis added), which is the same idea for explaining the word order change as developed in Trips (2002) (Matsuse (2006) also discussed Trips (2002)). According to Roberts (2007: 391), the whole picture of an indirect case of contact is shown as follows:[6]

(9) Oldest group: G[rammar] 1   →   Corpus 0

     Older group: G 1   →   Corpus 1; G Alien   →   Corpus Alien

     Younger group: G 2   →   Corpus 2

We find here that the corpus in the previous generation functions as the input (= PLD) for the grammar of the next one. As for the contact situation between OE and ON in the Danelaw, then, Roberts' understanding the schema (9) above is that 'the older group... can be thought of as Norse immigrants who imperfectly learned OE.[7] This adult-acquired OE formed part of the PLD for the younger group, who were native OE speakers' (p. 392). But, pungently criticizing the similar analysis by Trips (2002), he concludes that this contact situation does not plausibly account for the OV-to-VO word order change in the following two points: (i) there is no evidence for the ON spoken in the Danelaw to have had VO order obviously and (ii) the fact that in the late ninth-century West Saxon, which was spoken at the place far from the Danelaw, the change to VO order had already been going on without any contact with ON speakers.

With regard to the first point, as Townend (2006: 66) says, '[w]ith the exception of a handful of inscriptions in the runic alphabet, Norse [i.e. Old Scandinavian in the Danelaw] was never written down in England, only spoken' (emphasis added); and, as Gordon & Taylor (1957[2]: 265) point out, spoken 'Viking Norse' (700-1100 A.D.) must have been different from 'Literary Old Norse' (1100-1500 A.D.) used in the Icelandic Sagas. We could not say, therefore, that the ON spoken in the Danelaw was thought to be the same as the literary ON about which Faarlund (2004: 161) states that 'the basic order ... appears to be VO', but instead, at best, we just say that the former might have had a 'mixed' OV system, as suggested by Rögnvaldsson (1996).[8] This leads to reduction of the possibility that the new PLD for the younger group includes very frequent VO-ordered OE sentences: hence low probability of parametric change on the new grammar of the group. I dare want to say, however, that it is also true that no one knows to what extent the word order system of the ON in the Danelaw had been a mixed one, especially when spoken, and thus it may not be so wrong to assume that their mixed system could have 'accelerated' the change of word order on the OE speakers' side as a step toward the parametric change.

Roberts (2007: 399) explains the second point as follows: 'change from OV to VO is quite common, and can take place independently of contact: .... VO is, all other things being equal, the unmarked setting for this [i.e. word-order] parameter, and so this may be enough to explain the strong tendency for OV systems to change to VO' (emphases added). Indeed this seems to be a plausible way of thinking, but it is not necessarily fully accounted for why we can say that VO order is 'quite common' and 'unmarked'.

Another problem lying in this Principles-and-Parameters approach is pointed out by Fischer (2007: 108-109), where she discusses the three types of language change proposed by Lightfoot (1991, 1999) as in (10).[9]

She thinks questionable not only the way in which Lightfoot does not treat Category 1, that is, 'triggers' on the PLD level, as genuine 'changes' at all, but also the fact that he describes the changes in Category 2 rather semantically, not formally, in spite that this model is based on formal distinctions. As for the OV-to-VO word order change, what seems to her most problematic is that he asserts that the change in main clauses is a 'gradual' Category 1 type process, whereas in subordinate ones, an 'abrupt' Category 3 type (because it accompanies with parametric shift): why we must postulate such different behaviors for main and subordinate clauses respectively. Rather she remarks that 'the loss of OV order

(10) Types of change:	1. TRIGGERS on the PLD level	2. MINOR grammatical change	3. MAJOR grammatical change
characteristics	Involves variables (small changes) on the out put level	Involves changes in the grammar	Involves changes in the grammar
	Progresses gradually until threshold is reached	Changes is piece-meal, may diffuse lexically	Change is abrupt
	Is haphazard, but may lead to change in the grammar	Involves recategorization (morphological and categorial)	Involves parameter shifts, and clusters of simultaneous changes

in subordinate clauses may not have been as abrupt as Lightfoot accepts it to be. OV is definitely still quite common after the twelfth century' (p. 109).

In any case, the fact might simply be that originally, the two word orders had already been competing in OE, and especially in the Danelaw the native OE speakers encountered not only the imperfectly learned OE, but also the 'cognate and similar' ON with a mixed OV system itself, from the ON speaking immigrants and noticed the vantage of VO order (among others, in subordinate clauses) in terms of listening to the mixedness 'objectively', as was discussed in Matsuse (2006).

3 Grammaticalization

Introducing Meillet (1912),[10] Hopper & Traugott (2003[2]: 59) show that word order change (or fixation) can also be an example of grammaticalization in the sense of 'reanalysis'. They exemplify the two-way word order of the periphrastic, future (11a) and perfect (11b) constructions without traditional inflectional endings in Late Latin:[11]

(11) a. cantare habeo   (OV) vs. habeo cantare   (VO) Cf. canta*bo* 'I will sing'
     b. probatum habeo (OV) vs. habeo probatum (VO) Cf. proba*vi* 'I have tried'

The two constructions 'eventually became fixed units and involved *reanalysis* of an inflected form of the independent verb *hab-* as dependent on the finite verb with which they occurred' (p. 62, emphasis added), and, as they suggest, the fact that 'in French the first [i.e. the future] became an inflection and the second [i.e. the perfect] remained as a periphrasis' (p. 63) seems to show that the choice of word order is involved with the extent to which grammaticalization is invoked.

Fischer (2007: 118) presents the diachronic stages in the process of grammaticalization, following Lehmann's (1985) 'parameters' as in (12) below:[12]

(12) Parameters	Paradigmatic processes	Syntagmatic processes
WEIGHT	(Loss of) integrity	(Reduction of) scope
COHESION	(Increase in) paradigmaticity	(Increase in) bondedness
VARIABILITY	(Loss of) paradigmatic variability: increase in obligatoriness	(Decrease in) syntagmatic variability

It is, however, important to note that as Fischer (2007: 120) herself points out too, since these parameters Lehmann proposes do not cover all the processes found in grammaticalization, they do not seem to be able to satisfactorily account for the present word order issue.

One of the most important explanatory tools for grammaticalization is what is called 'cline' (or 'hierarchy').

According to Fischer (2007: 121), this cline utilizes metaphor or metonymy, whose properties are respectively as follows:

(13) a. METAPHOR: iconic, paradigmatic, based on similarities

   b. METONYMY: indexical, syntagmatic, based on associations/cause-and-effect/contiguities

But Fischer criticizes the grammaticalization theorists who discuss metaphor and metonymy only from a functional point of view and regard 'form' as being secondary. Her claim is that metaphorical and metonymic processes are in a sense the same mechanisms as analogy and reanalysis, because what makes the two pairs seem superficially different is just the idea that since the former are thought to be operating on the semantic level, they are seen as 'causes' in grammaticalization; while the latter, operating on 'form', are apt to be seen as mere mechanism, and therefore 'both pairs should be considered equal — they are *causal* mechanisms — but operating on different levels of abstraction' (p. 122, emphasis in the original). Thus, she advocates the existence of similarity relations in form as well as in meaning, saying that '[b]y neglecting form, the formal similarity of patterns and the adjacency (contiguity) of signs are neglected as an important formal force in grammaticalization' (p. 123).

Concerning the order between analogy and reanalysis too, Fischer's view is different from that of many grammaticalization theorists. They, including Hopper & Traugott (2003^2), think that reanalysis is primary, and analogy is secondary, because the latter is related to 'form'. In other words, they regard analogy just as a useful descriptive tool, not as an important psychological process. Fischer, however, believes that analogy is definitely a psychological process and 'is primary or at least stands on an equal footing with reanalysis, since a reanalysis, both a semantic-pragmatic and a structural one, takes place within the contours of the communicative situation *and* the grammatical system in which a structure operates' (p. 123, emphasis in the original).

To sum up, in the grammaticalization approach, the key notion which is used for explaining the present word order issue may be 'reanalysis'. But, it is rather dubious that the approach is effective enough, because, first of all, the procedures of grammaticalization seem to be too much functionally-oriented, as Fischer is arguing against it. Secondly, it is not necessarily obvious how the relation between reanalysis and fixation of word order is established,[13] though Hopper & Traugott (2003^2: 63) write: '[o]f historical factors, by far the most important is *language contact*, which often results in the adoption of new word-order patterns and changes in typological affiliation' (emphasis added). Hence probably we need a more elaborate theoretical evolution for grammaticalization to be sufficient to account for the OV-to-VO word order change in English.

4 Analogy-based Learning Model

By criticizing both the 'too formal' generative (Principles-and-Parameters) and the 'too functionally-oriented' (grammaticalization) approaches, as seen in the preceding sections, and in a sense by trying to get the two approaches together, Fischer (2007) develops her own theory of language change based on the key concept 'analogy'.

To begin with, let us see the mechanism of 'analogy' which Fasold & Connor-Linton (2006: 296) give:

(14) Speakers of a language tend to prefer regular patterns over patterns with many exceptions. Regular patterns are more easily acquired by children (and exceptions are more easily forgotten). Borrowing and other processes of language change may introduce irregularities into the language. The processes of analogy help to reassert regularity in the patterns of the language. Analogy involves the modification or creation of linguistic forms by (over)generalization of an existing pattern. Children overgeneralize frequently in acquiring their native language;

We find that the point here is clearly 'perception of regularity and (over)generalization', which make the core of language acquisition by children. And this analogical thinking is also the case with adults' learning of a second language, which could lead to language change.

Fischer (2007: 126-127) presents a general survey of many factors involved in language change (which is also

closely related to language learning), among which those definitely essential and relevant for her theory are as follows:

(15) Main Factors	Sub-Factors	General Constraints
Analogy	Extension, levelling, lexical diffusion, folk etymology, metaphor	Iconicity, centrality of the body/concrete objects
Reanalysis	Parameter shifts, abduction, exaptation, form-function reanalysis, pragmatic inferencing, folk etymology, metonymic process	Iconicity/indexicality (presence of UG)
Frequency	Type/token frequency, repetition, imitation, syntactic priming, formulaic phrases, automatization	Economy/effective processing, imitation, memory constraints, ritualization, calls/gestures

And she concludes that factors indispensable to language learning are 'the *iconic* and *indexical* reference systems, in combination with *repetition* (frequency) and *imitation*, all within the context of social community and individuals who can take a perspective on others' (p. 134, emphases in the original). In her enterprise to connect language acquisition and change, she makes Anttila's (2003) 'analogical grid' (i.e. the iconic/indexical mode of thinking) and the 'connectionist model' in neuronal grammar play crucial roles, assuming that 'the way in which language changes is guided by the same learning mechanisms that help us to acquire language' (p. 135). And she continues, 'a learning system based on analogical sets and indexical and iconic relations ... involves a continuous learning process ...; it is process-driven, invoking procedures and schemas rather than rules' and in this analogy-based model, 'there is only one system', so accordingly it needs 'more fine-grained lexical categories and more "construction-types"' (p. 136).

Fischer (2007), however, does not in particular apply her own analogy-based theory to this word order issue itself. Making good use of it, she somehow just tries to explain the relation between sentential adverbs and S[ubject]V [erb]/VS word order. Here, then, let us tentatively take a look at possible pictures of its application.

We could have at least three scenarios for the issue. The first scenario is that there was analogy with the OE main clauses which had already principally become VO order; the second one, analogy with the ON subordinate clauses which had a mixed OV system; and the third one, analogy with both the OE main clauses and the ON subordinate clauses, on the native OE speakers' side.

Of these, we find that the first scenario is self-contained and does not have to take the contact situation between OE and ON into consideration, but the latter two presuppose it. So it seems that the first scenario is more advantageous than the latter two in that it also explains the change to VO order in Southern England where the OE speakers did not have any influence from the ON speakers in the Danelaw, which is Roberts' (2007) crucial point when he criticizes Trips (2002).

On the other hand, the second and third scenarios can fully use a second language as the source of analogy; Fischer herself recognizes a contact situation as a factor for language change, too. Thus Fischer (2007: 126) tells us the following:

(16) Main Factor	Sub-Factors	General Constraints
Borrowing[14] / Contact	Prestige, filling of gaps, code-switching, substratum	Imitation, type and length of contact, immigration

Fischer has not taken up 'bilingualism' as a factor for language change here, but Townend (2006: 69) writes: 'contact between languages — or rather, between users of languages — involves *bilingualism* of some sort. This bilingualism can either be *individual* or *societal*. ...Viking Age England was thus *a bilingual society dominantly made up of monolingual speakers of different languages* [i.e. societal bilingualism]' (emphases added), and he also states that 'for the contact between Norse and English speakers in Viking Age England, it is likely that, at least *for pragmatic purposes*, speakers

of the two languages were *mutually intelligible to a sufficient extent* to preclude the need for bilingualism on either a major or minor scale' (p. 70, emphases added). This is what is called 'pragmatic intelligibility' in Townend (2002). And this kind of contact situation, as Wales (2006: 58) points out, must have made 'no stigma in interchanging features between languages, *nor a compulsion to learn a second language "properly"'*, rather the reality may have been that 'in the Danelaw area, there existed a "diffuse" rather than "focussed" situation, *speakers having no clear idea about what language they were speaking; and what would and would not constitute "English" would be of no great importance'* (emphases, added). Due to their cognate relation between OE and ON, the language used in this situation may not be called a real pidginized/creolized language, but could be regarded as a kind of 'fusional' language, where analogical thinking must have been easier to occur.

Another view against the above idea, however, is proposed by Hadley (2000: 337): 'where there is social pressure for individuals and communities with each other, then any two individuals who are able to interact with each other using, among other means, speech become mutually intelligible *even if they do not fully understand or speak each other's language'* (emphasis added). In the Danelaw, the social pressure came first to the native OE speakers because of its political occupation of the Danes, then after that, it came straight back to the ON speaking Danes owing to the revival of the Anglo-Saxon dynasty dominating over the area. In any case, therefore, even if we follow Hadley's view instead of assuming the pragmatic intelligibility between them, there must undoubtedly have been a situation in which the two peoples understood each other to some extent.

In this way it appears that the contact situation could give rise to analogical thinking on the OE speakers' mind more easily than when they live in a single ethnic community of speaking OE. Wales (2006: 61) aptly concludes: 'even allowing for pre-Viking Age simplification, it seems no mere coincidence that simplification and levelling of inflexions should take place earliest in the Danelaw area'.

5 Evolutionary Model

This section discusses 'Generalized Analysis of Selection (= GAS)' proposed by Croft (2006).

According to Croft (2006: 72), language change is defined as 'linguistic variation at a broader scope', that is, 'linguistic variation that proceeds from first-order variations [that occur in individual occasions of language use] to second-order variants [i.e. first-order variant productions taking on sociolinguistic value in the speech community] to third-order divergence [across (varieties of) languages]', and since it is this variation that is essential for understanding language, he advocates a 'usage-based' model where grammar is dynamic and can vary even in the lifetime of an adult speaker. Keeping this in mind, Croft develops an evolutionary model[15] for the analysis of change by 'replication' based on Hull (1988),[16] which is called 'Generalized Analysis of Selection (= GAS)'. Its theoretical outline and key concepts are as follows:

(17) language change is a two-step process: replication which produces variation among replicators, and environmental interaction by interactors which causes differential replication (selection) of replicators, where Croft identifies the 'lingueme' [= linguistic structure in an utterance] as the 'paradigm replicator' and the speaker [precisely speaking, the speaker's grammar] as 'paradigm interactor' (p. 74).

(18) Replication (= language use) produces variation.

Altered Replication: change that occurs in a lineage of specific replications
(= variation/innovation, which is functional)

Differential Replication: the increase in frequency of one variant of a linguistic variable at the expense of another variant in the speech community
(= selection/propagation, which is social) (pp. 74-76, p. 79)

(19) The only constraint imposed by the GAS is that all roles must be instantiated: replicator, interactor, environment; and there are causal mechanisms linking those roles in the way specified by the generalized analysis (p.77).

This is a usage-based instantiation which Croft (2000)[17] calls the 'Theory of Utterance Selection'.

(20) When speakers talk to each other, they replicate linguemes from prior occasions of language use. Language use can generate novel variants (altered replication), that is, innovation. Where alternative variants exist, language use involves selection or propagation of particular variants at the expense of other variants (differential replication) (p. 77).

(21) The causal mechanisms for the GAS are 'Form-Function Reanalysis' and 'Intraference', in which the former consists of hyperanalysis, hypoanalysis, metanalysis, and criptanalysis.

As (18) above shows, the most important idea here is that 'language use' is regarded as 'replication'. That is, talking is nothing but replicating linguistic structures in our utterances from precedent occasions of language use. Since we do talk every day, accordingly our language is replicated every day. But the replication is sometimes made in the way in which it is not exactly what it was before; that is called altered replication, i.e. 'innovation', and there occurs a competition between convention and innovation, resulting in 'selection' of the two, which eventually leads to language change.

With regard to the GAS also, we could think of two scenarios for the OV-to-VO word order change: contact and non-contact situations. In either case, the point is how altered replications could possibly take place in our communication and, then after that, how the selection could be decided.

When we think about the scenario of non-contact situation, it is worth noting that Allen (2006), for example, discusses the relation between case syncretism and the order of the objects for ditransitive verbs: I[ndirect] O[bject] D[irect]O vs. DO IO, both of which freely occurred in the OE period, but the latter had entirely disappeared by the late fourteenth century. She claims that:

(22) the interaction between the decline of case marking and the fixing of word order is not one-way street. Once there was a clearly *unmarked* order for two objects [i.e. IO DO order], language users could use *a processing strategy* by which they assumed that the first object was probably the IO, and this might make less careful to use such case marking as was still available to them. In this way, the development of an unmarked order, which might have resulted to some extent from reduced reliability in the morphological system, in conjunction with the increase in the use of adpositions to mark [abstract, not morphologically overt] Case distinctions, would lead to a (further) increase in syncretism of case forms which would in turn lead to further reliance on word order as a way of processing thematic relations (p. 215, emphases added).

(23) although it may have been *pragmatic considerations* which gave the initial impetus to making certain word orders more dominant than others, deflexion played a role in making these orders increasingly dominant. It seems likely that the two developments worked hand in hand; more fixed word order allowed for less overt case marking, which in turn increased the reliance on word order (p. 220, emphasis added).

Examination of (22) and (23) reveals that case syncretism could be one of the causes for speakers to select between certain two variants involved, and 'intraference' in Croft's terminology (see (21) above) seems to be closely related to the above-said 'processing strategy' or 'pragmatic consideration'. In other words, it is conceivable that the tendency to pragmatically prefer unmarked constructions in our mind (that is why it is 'intra-') exerts an enormous influence on selection between variants.[18] If we accept the idea that VO order can be regarded as (cross-linguistically) 'unmarked',[19] as Roberts (2007) maintains, then such intraference might have functioned to select VO order instead of OV.

The other scenario presupposes language contact. Here again, we can consult another approach to language contact/change in order to more deeply understand the GAS model: it is Heine & Kuteva (2005).

They explain the term 'equivalence/isomorphism' as follows:

(24) Grammatical replication means essentially that speakers aim at establishing some kind of equivalence relation between use patterns and categories of different languages (p. 219).

(25) we apply the term equivalence to situations where a use pattern or category in one language is conceived or described as being the same as a corresponding use pattern or category in another language (p. 220).

(26) Kinds of equivalence (where M = model language, R = replica language; x, y = use patterns or grammatical categories; ' > ' = develops into, ' >> ' = is replicated as)

   a. Mx   = Rx   Structural or translational isomorphism

   b. Mx   = Ry > Rx Ordinary grammaticalization

   c. My > Mx >> Ry > Rx Replica grammaticalization (p. 234)

As they point out, the complexity of equivalence is that (26a) just equates a category x of language M (= Mx) with a similar category of language R (= Rx), whereas (26b) and (26c) equate a category or a process with a similar 'process', in which grammaticalization is involved. But the OV-to-VO word order change seems to concern only the case of (26a), since in Section 3 we saw that the grammaticalizationist approach was not good enough to account for the issue satisfactorily. At any rate, this equivalence could be a trigger for selecting a certain variant in a contact situation. That is to say, the native OE speakers could have found some merit of VO order (especially for subordinate clauses) through the equivalence obtained from the contact with the ON speaking immigrants, because although both peoples originally had the two variants, the contact situation must have created an 'attitude' of listening to these word orders objectively, whether it is OE or ON.[20]

6 Summary and Conclusion

What I discussed in this paper will be summarized as follows.

The OV-to-VO word order change has long been disputed and attracting various approaches and proposals by many linguists all over the world, but we can say that it is still not so easy to find out its true history or a more plausible mechanism for it satisfactorily enough.

There are two major approaches to language change. On the one hand, the formal generative approach based on UG and Principles-and-Parameters tries to account for the word order issue in terms of parametric change on the native OE speakers' side, which was brought about by the imperfect learning of OE on the Danes' side; the contact situation created a new and different PLD for the younger generation of the Anglo-Saxons. The problem of whether 'abrupt' or 'gradual' still remains unsolved, though. On the other hand, the functional grammaticalization approach attempts to regard the issue as a reanalysis phenomenon. It, however, never tells us clearly how word order change or fixation is involved with grammaticalization.

In place of them, I would rather advocate Fischer's analogy-based learning model and Croft's evolutionary model, because of a kind of 'naturalness' they possess: e.g. perception of regularity, pragmatic strategies, selection in terms of vantage, etc.; by means of them, the contact situation between OE and ON could effectively be explained as meaningful. The biggest problem may be to what extent the spoken Viking Norse, not the extant written ON, was in VO order, which we could probably never know, but only speculate about it. At least, therefore, it would be safe to say that the above two models predict that the contact situation definitely accelerated the OV-to-VO word order change in the Danelaw.

Fischer's theory tries to integrate the essences from the major two approaches: 'language acquisition' and 'analogy', which means an amalgamation of formal and functional/pragmatic approaches. Whether this is successful or not remains open, but I would like to close this study with an impressive and enlightening phrasing by Seoane (2006: 381): 'syntax and pragmatic considerations *must go hand in hand* in the analysis of word order phenomena' (emphasis added).

Notes

1) It goes without saying that some word orders other than the above (1) to (4) were also possible, say, for negative clauses or clauses with initial adverbs in both the OE and the ME periods. And for the purpose of avoiding unnecessary complexities, the ways in which (1) to (4) are presented have been a little modified in this paper. The round brackets mean 'optional'.

    Otsuki & Otsuki (2007: 203) state that from the ninth century on, VO order as seen in (1a) has become common especially in prose

writings.

2) As for this pattern, Mitchell & Robinson (2007[7]: 64) say that '[t]he placing of a pronoun O., which would be unstressed, between S. and V. [;] when a noun O., which would carry some stress, would follow V. Thus *we hie ondredon* 'we feared them' is an *idiomatic* variation of the order S.V. rather than an example of S. ... V.' (emphasis added). Here we find that stress seems crucial, and they regard this kind of OV word order as rather exceptional.

3) S. Pintzuk, *Phrase Structures in Competition: Variation and Change in Old English Word Order*, (New York: Garland).

4) We do not know what exactly spoken Old Scandinavian in the Danelaw was like in the ninth to eleventh centuries due to few data left available to us. Referring to ON, Biddulph (2003: 18) remarks, 'it is too late in history and too far off dialectally to reflect the Danish heard in England at the time of the formation of the Danelaw'.

　　In addition, against the stereotyped notion that 'the Danelaw was a more or less homogeneous area of Danish settlement and sensibilities', Roffe (2006: 2) says that '[t]he Danelaw undoubtedly had a Danish cultural identity. However, this was but a veneer on a society that was still essentially English. Far from being specifically Danish, the hallmark tenurial forms and freedoms of the Danelaw were characteristic of pre-Viking English society in general'.

5) Allen (1997: 86-87) seems to be skeptical about the 'pidginization/creolization'. She writes: '[i]t must not be forgotten that ME contained a number of features which are not typical of a genuine creole', but she also recognizes that 'to deny that ME was a creole is not to deny that contact played an important role in the reduction of case marking categories'. So it may be reasonable to assume that the same is true with the word order change in the Danelaw.

　　Denison & Hogg (2006: 17) consolidate the creole discussions as follows: '[i]f an early Anglo-Celtic creole is at least tenable hypothesis, and an Anglo-Danish creole even a plausible one, the case for an Anglo-French creole is much less so'.

6) Roberts (2007: 390) also shows that the direct case of contact, which often results in 'borrowing', is schematized as follows:

(i)　Older group: G 1　　→　Corpus 1　　Corpus Alien

　　Younger group: G 2　　→　Corpus 2
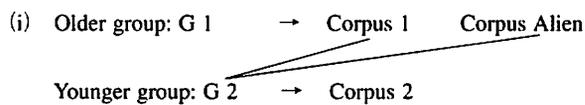
7) This situation is thought to be brought about by 'syntactic diglossia' (Roberts 2007: 316) on the native ON speakers' side.

8) Cited by Roberts (2007: 394). E. Rögnvaldsson, Word order variation in the VP in Old Icelandic, *Working Papers in Scandinavian Syntax*, 58, pp. 55-86.

9) D. W. Lightfoot, *How to Set Parameters: Arguments from Language Change*, (Cambridge: MIT Press, 1991), and *The Development of Language: Acquisition, Change, and Evolution*, (Malden, MA: Blackwell, 1999).

10) A. Meillet, L'évolution des formes grammaticales, reprinted in A. Meillet, *linguistique historique et linguistique générale*, (Paris: Champion, 1958), pp. 130-148.

11) Hopper & Traugott (2003[2]: 62-63) also show why *habere* 'to have' has been used for the two constructions as follows: '[t]hey differ in that the path from *habere* to the future was via an obligative or future-oriented sense of the verb, whereas the path from *habere* to the perfect was via the locative-possessive-existential in transitive contexts of cognitive and sensory states'.

12) C. Lehmann, Grammaticalization: synchronic variation and diachronic change, *Lingua e Stile*, 20, pp. 303-318.

13) Hopper & Traugott (2003[2]: 90-92) discuss the grammaticalization of the noun *while* (< OE *hwil* 'time') to a conjunction/clause-linker, together with the OV-to-VO word order change:

(ii)　& wicode þær *þa hwile* (ACC) *þe* man þa burg　worhte　　　　　　　— *ChronA* (Plummer) 913.3
　　and camped there *that time*　　*that* one that fortress built
　　(= and camped there *during the time that* the fortress was built)

(iii)　& ðæt lastede þa xix wintre *wile* Stephne was king　　　　　　　　— *ChronE* (Irvine) 1137.32
　　and that lasted those 19 winters *while* Stephen was king
　　(= and that went on for 19 years *while* Stephen was king)

　　There is, however, as Fischer (2007: 226) suggests, no clear evidence that the grammaticalization of *while* triggered the change to VO order in subordinate clauses.

14) According to Townend (2006: 71), the difference between 'borrowing' and 'imposition/interference' is that as for the former, the primary agent of transfer would be a speaker of the 'recipient' language, while as for the latter, a speaker of the 'source' language.

15) The similar approach utilizing a theoretical framework of evolution for the analysis of language change is also developed in Ritt (2004), but this principally concerns the phonological aspect of language change.

16) D. L. Hull, *Science as a Process: An Evolutionary Account of the Social and Conceptual Development of Science*, (Chicago: Chicago Univ. Press).

17) *Explaining Language Change: An Evolutionary Approach*, Harlow: Longman.

18) With regard to the relation between unmarkedness and word order, Seoane (2006) examines the development of passive constructions and says that one of the reasons why passive order is chosen is 'the need to place an inherently topical patient in *unmarked* topic position' (p. 380, emphasis added).

19) Researches report that many creolized languages are often found having VO order, so we are likely to think that the order may be universally 'unmarked', but this might be just derived from the fact that their source/model languages, which are often major European languages, happen to have VO order instead of OV.

20) As pointed out in Matsuse (2005: 125), 'attitude' of the hearer rather than the speaker might be crucial in connection with this equivalence.

References

Allen, C. L. 1997. Middle English case loss and the 'creolization' hypothesis.
English Language and Linguistics, 1 (1), 63-89.

Allen, C. L. 2006. Case syncretism and word order change. In van Kemenade & Los, eds., 201-223.

Anttila, R. 2003. Analogy: the warp and woof of cognition. In Joseph, B. D. & Janda, R. D., eds.,
The Handbook of Historical Linguistics, Oxford: Blackwell, 425-440.

Biddulph, J. 2003. *Old Danish of the Old Danelaw*. Pontypridd: Cyhoeddwr Joseph Biddulph Publisher.

Brinton, L. J. & Arnovick, L. K. 2006. *The English Language: A Linguistic History*. Toronto: Oxford Univ. Press.

Croft, W. 2006. Evolutionary models and functional-typological theories of language change.
In van Kemenade & Los, eds., 68-91.

Crystal, D. 2004. *The Stories of English*. London: Penguin.

Denison, D. & Hogg, R. 2006. Overview (of a history of the English language). In Hogg & Denison, eds., 1-42.

Faarlund, J. T. 2004. *The Syntax of Old Norse*. Oxford: Oxford Univ. Press.

Fasold, R. W. & Connor-Linton, J., eds. 2006. *An Introduction to Language and Linguistics*.
Cambridge: Cambridge Univ. Press.

Fischer, O. 2007. *Morphosyntactic Change: Functional and Formal Perspectives*. Oxford: Oxford Univ. Press.

Fischer, O. & van der Wurff, W. 2006. Syntax (of the English language). In Hogg & Denison, eds., 109-198.

Gordon, E. V. & Taylor, A. R. 1957. *An Introduction to Old Norse*. 2nd and revised edition. Oxford: Clarendon Press.

Hadley, D. M. 2000. *The Northern Danelaw: Its Social Structure, c. 800-1100*. London: Leicester Univ. Press.

Heine, B. & Kuteva, T. 2005. *Language Contact and Grammatical Change*. Cambridge: Cambridge Univ. Press.

Hogg, R. & Denison, D., eds. 2006. *A History of the English Language*. Cambridge: Cambridge Univ. Press.

Hopper, P. J. & Traugott, E. C. 2003. *Grammaticalization*. 2nd edition. Cambridge: Cambridge Univ. Press.

Matsuse, K. 2000. Language contact and language mutation: on the contact between Old English and Old Norse.
Kumamoto Studies in English Language and Literature, 43, 41-55.

Matsuse, K. 2001. Grammatical gimmicks in early English: *gifts* from Old Norse.
Memoirs of the Faculty of Education, Kumamoto University, the Humanities, 50, 41-53.

Matsuse, K. 2004. On the northern dialect in late Middle English: with special reference to the third-person plural pronouns and the verbal endings in the present indicative third-person singular.
Memoirs of the Faculty of Education, Kumamoto University, the Humanities, 53, 21-33.

Matsuse, K. 2005. On the language use in the Danelaw. In Otsu, T., Nishioka, N. & Matsuse, K., eds.,
Kotoba-no Shirube: A Festschrift for the Late Akinori Hirai, Fukuoka: Kyushu Univ. Press, 115-129.

Matsuse, K. 2006. Contact-induced grammatical replication: on the relation between the establishment of *VO* word order for subordinate clauses in English and the settlement of the Vikings in the Danelaw.
Memoirs of the Faculty of Education, Kumamoto University, the Humanities, 55, 179-192.

Mitchel, B. & Robinson, F. C. 2007. *A Guide to Old English*. 7th edition. Oxford: Blackwell.

Otsuki, H. & Otsuki, K. 2007. *An Outline of the English Language History*. Osaka: Nensho-sha.

Pintzuk, S. & Taylor, A. 2006. The loss of OV order in the history of English. In van Kemenade & Los, eds., 249-278.

Ritt, N. 2004. *Selfish Sound and Linguistic Evolution: A Darwinian Approach to Linguistic Change*.
Cambridge: Cambridge Univ. Press.

Roberts, I. 2007. *Diachronic Syntax*. Oxford: Oxford Univ. Press.

Roffe, D. 2006. Danish identities. Paper given at the 4th symposium of *Medieval British History Symposia*,
at Kumamoto University, Kumamoto, Japan, November 2006.

Seoane, E. 2006. Information structure and word order change: the passive as an information-rearranging strategy in the history of English. In van Kemenade & Los, eds., 360-391.

Townend, M. 2002. *Language and History in Viking Age England: Linguistic Relations between Speakers of Old Norse and Old English.* Turnhout: Brepols Publishers.

Townend, M. 2006. Contacts and conflicts: Latin, Norse and French. In Mugglestone, L., ed., *The Oxford History of English,* Oxford: Oxford Univ. Press, 61-85.

Trips, C. 2002. *From OV to VO in Early Middle English.* Amsterdam: John Benjamins.

van Gelderen, E. 2006. *A History of the English Language.* Amsterdam: John Benjamins.

van Kemenade, A. & Los, B., eds. 2006. *The Handbook of the History of English.* Oxford: Blackwell.

Wales, K. 2006. *Northern English: A Social and Cultural History.* Cambridge: Cambridge Univ. Press.