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Internal and external forces again: changes in word order in Old English and Old Irish

Raymond Hickey

Essen University, Germany

Abstract

The relative weight which is accorded to internal and external factors in language change is an ongoing debate. In this paper the claims made by Lass in several papers, in which he downplays the role of contact as a source of new features, are subjected to scrutiny. The double position that core structural features of a language always have priority and that inherited features remain unaltered is considered with evidence produced to show that this is not necessarily always the case. The parallels in the internal mechanisms suggested for the attested word order changes in both Old English and Old Irish are examined critically. © 2001 Published by Elsevier Science Ltd. All rights reserved.

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1. Introduction

The purpose of the present contribution to this volume on language change is to look at two languages, one well-known and the other less so, both of which underwent changes in word-order, each with a different initial type and each with a different end type. The languages in question are Irish and English and the value of the comparison, in the opinion of the present author, lies in trying to establish what forces were instrumental in the word order changes. The Irish data, it is hoped, will perhaps throw light on the interplay of internal and external forces and the comparison with English is intended to illuminate the factors which can lead to disharmony and later typological realignment. Because the English data is well-known and easily accessible in the public domain, it is just summarised here. There is more information given on Irish, assuming that most readers will not necessarily be au fait

E-mail address: r.hickey@uni-essen.de

with the structural features of that language. The discussion concentrates on weighing up the various factors which were involved in the word order changes in both languages.

Essentially the word order changes in both cases have been traced by a number of scholars to a small number of factors, three in Irish and two in English. The additional factor in Irish is a case of externally induced change, the remaining two in both languages are internal factors.

(1) *Factors responsible for word-order change in Irish and English*

- (1) Developments in word order after the operation of Wackernagel's Law.
- (2) The raising of peripheral, topicalised word orders to canonical status.
- (3) The adoption of a new word order due to language contact.

This simple division of factors already raises a number of questions which need to be clarified. With regard to (1) the question arises as to what manifestation Wackernagel's Law—the placing of unstressed elements (clitics, unstressed pronouns, auxiliary verbs, etc.) in second position—had in each language and, importantly, what further developments resulted from this. Factor (2) demands that one attempts a definition of basic word order. This includes high frequency, productive use, wide grammatical distribution and lack of specialised semantic or pragmatic connotations (Croft, 1995, p. 95). Language contact, (3) in the above list, has fallen into disrepute because it was too often appealed to by scholars formerly (see the various criticisms in Lass, 1997). However, contact cannot be dismissed straight away and the mass of evidence for contact between the Celts and the pre-Celtic, non-Indo-European peoples in the British Isles, which has been collected and presented in the last decade or so by Theo Vennemann, is impressive and deserves careful consideration (see later). One should of course mention that there may well have been a combination of forces operating in the key phase of the language when the typological orientation took place. Certainly in the case of Irish, a convergence scenario may help to explain why, by the Old Irish period, the language was almost completely post-specifying with VSO as the dominant word order despite the original Indo-European SOV order and the mixture of SVO and SOV which has been reconstructed for continental Celtic.

2. Issues in typological studies

The establishment of typological consistency in a language—and its later demise—is a constant theme in typological studies. The question concerns those forces which can be assumed to be instrumental in the increase in consistency and those which are postulated to disrupt such consistency. It would seem fair to maintain that typological consistency is an epiphenomenon resulting from the application of a principle, such as post- or pre-specification in a language. The consistency is something which the linguist observes when investigating languages but its ontological status for speakers is a difficult issue to decide on. Rather it would appear that language learners treat typological orientation as a parameter which is set during early acquisition.

For instance, Irish-speaking children grasp quickly that the language is post-specifying and consistently place the verb in sentence-initial position, adjectives after nouns and the genitive after the nominative.

The epiphenomenal nature of typological consistency has an important consequence for the discussion at hand. It means that one must reject any notion that speakers of a language have anything like allegiance to the typological orientation which may obtain in their language. The consistency may be upset by certain competing forces, such as the use of topicalisation strategies, which might disrupt it, gaining significance in the language in question. Furthermore, any kind of disruption can lead to children abductively reanalysing their language and according hitherto peripheral structures more central status Disterheft (1984, pp. 101–4).¹

2.1. *Typological harmony*

The degree to which typological principles apply in a language is expressed as harmony. In the case of Irish one can see that by the Old Irish period, and ever since then, Irish has been quite definitely harmonic, i.e. the principle of post-specification has been applied consistently, thus accounting for the orders VSO, NRel, NA, NG. The principle of post-specification would favour NDem as well. This is present in modern Irish with demonstrative pronouns, e.g. *an baile seo* [the town this] ‘this town’. The principle also leads to preferential alternative constructions for possessive pronouns. The inherited elements (ultimately from Indo-European) are single, preposed pronouns, as in *ár mbaile* ‘our town’, but there is an alternative post-specifying construction, seen in *an baile seo againne* [the town this at-us] ‘our town’ which shows the force of post-specification as a valid structural principle in Irish. However, there are two areas in which this is not the case, or only partly so. Compound nouns have the specifying element before the head and ordinals precede the nouns they modify, although the numerals from 11 to 19 involve a split.

(2)	<i>gearrfhocal</i> [sharp word]	‘a sharp remark’
	<i>an triú lá</i> [the third day]	‘the third day’
but:	<i>an triú lá déag</i> [the third day tenth]	‘the thirteenth day’

One explanation of the Modifier + Head order for compounds is that the opposite order would result in structures identical with a syntactic group of Noun + Adj, so that the disharmonic order Modifier + Head has a demarcative function in Irish for compounds vis á vis noun phrases.

The VSO word-order inherited from Old Irish applies in Modern Irish in subordinate clauses as well. Irish use special particles to signal an interrogative sentence so that other strategies, such as inversion in SVO languages like English and German, do not apply.

¹ Disterheft (1984, p. 89) also discusses the example of the verbal noun which in Old Irish was formally a nominalised verb which came to be re-interpreted as a non-finite predicate due to the ambiguity of clauses in which it occurs (abductive reanalysis).

- (3a) *Dúirt sí nár rinne sé an obair.*
 [said she NEG-COMP did he the work]
 ‘She said that he did not work’
- (3b) *An bhfuil píosa aráin ann fós?*
 [INTERROG-PART is-RELATIVE bit bread-GEN in-it still]
 ‘Is there still a bit of bread left?’

Stenson (1981, p. 40f.) examined the structure of Irish in terms of what one would expect according to Greenberg’s universals of the order of meaningful elements and concludes that Irish is almost a paradigm example of a VSO language with the only exception being to Greenberg’s Universal 6 which specifies that a VSO language will have a SVO alternative word order. This is not the case in Irish which requires a clefting construction with subordination of the main clause to front an element which is to be highlighted. Relativisation is also used as a device to topicalise an element. Frequently the main clause is incomplete and lacks a finite verb.

- (4) *Bean mhaith atá inti*
 [woman good COMP-is in-her]
 ‘She is a good woman.’

2.2. *VSO in Old Irish*

The amount of VSO attestations and the abundance of clefting in Old Irish is a clear indication that the language was post-modifying by its classical stage. However, there is one exception to this, known as Bergin’s Law. It applies to Archaic Old Irish but not to Classical Old Irish. Thurneysen, in his grammar of Old Irish, formulates it as follows: ‘simple and compound verbs may be placed at the end of their clause’ (1946, p. 327). Disterheft (1990, 192f.) maintains that this SOV structure in Old Irish (Bergin’s Law) was a deliberate case of an archaising structure in Old Irish (which was already VSO), a type of inverse adaptive rule.

2.3. *Correlates of specific word-orders*

There would appear to be a number of further generalisations, apart from the order of dyads, which can be assumed to apply to post-specifying languages. Fife and Poppe (1991, p. 16) mention that Celtic, like other VSO languages, has special relative forms of the verb. The genesis of such verb forms probably lies in the absorption of post-posed relative markers into the main verb. For this reason such relative verb forms can be seen as characteristic of post-specifying languages such as Irish.

Another feature of Irish which can be associated with its post-specifying nature is the existence of split numerals. For numbers above ten the word expressing ‘ten’ is post-posed (see earlier remarks). This is also in keeping with the postposition of

demonstrative pronouns used in conjunction with articles as well as with alternative structures for expressing (alienable) possession (see 5c).

- | | | |
|------|---|--|
| (5a) | <i>Ocht bhfear</i>
[eight men] | <i>aon fear déag</i> ‘eleven men’
[one man ten] |
| (5b) | <i>an ceann sin</i> [the one there]
<i>an ceann seo</i> [the one here] | ‘that one’
‘this one’ |
| (5c) | <i>an baile seo againne</i>
[the town here at-us]
<i>*an lámh seo agamsa</i>
[the hand here at-me] | ‘our town’

‘my hand’ |

2.4. The position of negatives

Although Irish is strictly VSO, negative and interrogative particles precede the verb. There may well be a generalisation which involves the manner in which negatives and tense-mood-aspect markers are expressed in a language. If they are indicated by auxiliaries then they follow the order of verb and object in a language (either OV or VO) but if particles are used then they tend to precede the verb. The latter is true of negative markers in Irish which are virtually the only elements which can precede a verb in a non-topicalised declarative sentence.

- | | |
|------|--|
| (6a) | <i>Ní mhaith leis an teangeolaíocht.</i>
[not like with-him the linguistics]
‘He does not like linguistics.’ |
| (6b) | <i>Níor tháinig sé abhaile.</i>
[not come he home]
‘He did not come home.’ |

2.5. Suffixing preference

The examination of large numbers of languages has led to further insights into the distribution of word order types and the combinations which occur. One obvious generalisation is that there is a general suffixing preference for the majority of languages; this is strongly supported by psycholinguistic investigations which show that the beginnings of words are more easily processed and retained than the ends (Croft, 1995, p. 104). As the beginning of a word is more salient than one most likely finds the lexical root in this position.

Furthermore, Hawkins (1988) proposes that the suffixing preference is greatest for case, definiteness, plural and TMA markers but this preference levels out for possessor, subject and object. There could be a generalisation here that the former group consists of categories which semantically show a greater degree of fusion with the relevant heads and so are more bound and more likely to occur suffixally. Possessor, subject

and object are categories which are usually animate or at least nominal (in the case of objects) and are hence semantically more independent from the head and so have a more even distribution across the two possible positions vis á vis the head. Other authors, such as Bybee et al. (1994), argue that the preference of a language for a certain affix type must be seen in connection with the position of non-bound morphemes as there is usually a correlation here which determines affixal position. But this issue is contentious; for instance, adverbs and adpositions before the elements they qualify can be found in both English and Irish, despite their differing basic word orders, cf. Irish *trasna na farraige* ‘across the sea’, *ar fúd na tíre* ‘throughout the country’.

2.6. *Further factors*

The diachronic perspective allows one to observe the operation of two further factors in word order typology. These are the principles of Heaviness and Mobility, which were proposed by Hawkins (1983), and which state that some modifiers are heavier than others and that they tend to move, possibly resulting in disharmonic word orders. The scales suggested by Hawkins are as follows:

- | | | |
|-----|------------|----------------------------|
| (7) | Heaviness: | Dem, Num < Adj < Gen < Rel |
| | Mobility: | Adj, Dem, Num < Rel, Gen |

The combination of these factors means, for instance, that demonstratives and numerals are the lightest elements and that they are likely to shift over time despite a possible contravention of canonical word order.

3. General views on word-order change

3.1. *Wackernagel's Law (second position clitics)*

This maintains that elements with low stress gravitate towards the second position in a clause (see Harris and Campbell, 1995, 215ff., ‘Three views of the cause of word order change’). So in German the unstressed auxiliary verb comes in second position and the non-finite form of the lexical verb at the end of a clause as in:

- | | |
|-----|---|
| (8) | <i>Hans hat einen langen Brief geschrieben.</i> |
| | [John has a long letter written] |
| | ‘John has written a long letter.’ |

This was also an historical process by which German altered the inherited word order of verb phrases consisting of an auxiliary and a main verb. Later the verb-second order was reanalysed as applying to all finite verb forms and so the order SVO arose for main clauses in German, although the SOV order is retained for subordinate clauses as just shown. Indeed Wackernagel's Law can be used to account for the development of V2 word order in Germanic in general (Lass, 1994, p. 226–8).

Wackernagel (1892, p. 342) insists that his second-position enclitic rule be seen in a wider perspective. However, he has nothing to say on Celtic in over 100 pages except to remark that ‘ich dahingestellt lasse, ob das Pronomen infixum des Keltischen nicht von hier aus Licht empfangt’ (I will leave undecided whether the infixed pronoun of Celtic can be illuminated by these considerations—translation mine, RH).

If Wackernagel’s Law has cross-linguistic validity then there must be a general motivation for it. The shift of ‘light’ unstressed elements to second position creates a typical rhythmic pattern of ‘strong’ + ‘weak’, so that the ultimate justification for it may be prosodic. But as Vennemann points out (personal communication) the essential question is why an inherited Indo-European phenomenon like Wackernagel’s Law seems only to have affected some languages. As there is no simple answer to this he rejects the use of Wackernagel’s Law in accounts of word order change and favours other hypotheses, above all those involving change through language contact. Before considering this scenario other internal factors which have been put forward by scholars working on the field will be considered. These rest on the fact that the generalisation of weak-stress second-position for auxiliary verbs to all finite verb forms is not the only account offered for the shift in Germanic from inherited SOV to SVO. Some of the more prominent suggestions of recent years are summarised briefly below.

3.2. *Vennemann: disambiguation on inflectional loss*

In the view of Vennemann, expressed in earlier work, see Vennemann (1974), languages which lose inflections tend towards a word order which places subject and object on either side of the verb in order to maintain their formal distinctiveness, hence the rise of SVO in Germanic. While this account might seem appealing at first sight there are many counterexamples of languages which kept their SOV word order despite inflectional loss or which shifted to SVO independently of suffixal decline.

3.3. *Faarlund: new information*

An explanation which is based on pragmatic factors is that of Faarlund (Faarlund, 1990) who assumes that there is a universal tendency to start a sentence with old information and then move to new. With transitive verbs the new information is normally carried by the object and so there was a tendency to place this clause-finally, i.e. after the verb, hence the rise of VO word-order in many Germanic languages. But there is much disagreement about a universal focus position in clauses, so that this argument has many counterarguments, for instance the view that new information is placed at the beginning of a sentence as with clefting, e.g. *It’s to London they’re moving house*. But there may have been a local clause-final focus position for Old Norse which led to VO arising in Norwegian (Faarlund’s prime example).

3.4. *Harris and Campbell: reordering to adjacency*

Ever since Otto Behaghel’s assumption that clause constituents which belong together tend to combine, appeals have been made to this tendency to explain changes in

word order (Harris and Campbell, 1995). Here the assumption is that Aux and Verb tend to gravitate to consecutive positions in a clause given their functional unity. Furthermore, the reordering is to the position of the inflected verb form, here the Aux (moved to second position in Germanic due to the operation of Wackernagel's Law). This analysis purports to account for the fact that English has auxiliary and past participle together, whereas German has a so-called 'sentence brace', contrast *He has come too late* with *Er ist zu spät gekommen* [he is too late come]. Note that reordering to non-adjacency can also occur, chiefly for topicalisation or stylistic reasons, e.g. *He tore the two of them apart* from *He tore apart the two of them*.

3.5. *Disterheft: transitivity shift*

With specific reference to the shift from an inherited SOV to VSO in the immediate pre-Old Irish period, Disterheft (ms) has postulated innovatively that Celtic before the shift to VSO had a highly intransitive clause structure which led to enough clause types being deprived of their arguments, this then triggering a reanalysis of the basic word order as verb-initial. This hypothesis rests on a scalar interpretation of transitivity as outlined by Hopper and Thompson (1980). The two extremes of transitivity can be illustrated as follows:

(9) Transitivity values

<i>High</i>	<i>Low</i>
two or more participants	one participant
action	none
telic	atelic
punctual	non-punctual
volitional	non-volitional
affirmative	negative
realis	irrealis
object totally affected	object unaffected
object individuated	object non-individuated

With reference to Hopper (1979), Disterheft points out that in Old English there was a tendency for OV syntax to occur in those clauses with high transitivity, e.g. where the subject was highly topical—an anaphoric pronoun or definite noun—but that SV syntax was common in cases where the subject was non-topical and the verb represented a state rather than an action. Hopper's thesis, corroborated by Disterheft, is that English shifted to SV by increasing transitivity in such clause types and by grammaticalising this word order in all instances.

4. Word order change in Old English

In the following two sections of this paper the general principles of typological organisation and the forces which may affect change in word order, which were

discussed above, are re-considered with specific reference to historical change in English and Irish.

4.1. *The Wackernagel account*

For English the operation of Wackernagel's Law is assumed to have shifted auxiliary verbs to clause-second position. This development was followed by the operation of re-ordering to adjacency which resulted in SVO becoming established (Lass, 1994, p. 226–8).

- (10) Stage 1: Wackernagel's Law allows clitics including auxiliary verbs to shift to second position (these originally followed the main verb)
- $$S O V v \quad \rightarrow \quad S v O V \quad (V = \text{lexical verb}; v = \text{auxiliary verb})$$

Stage 2: Similar word class constituents tend to stay together so that the main verb shifts up to the position as the auxiliary verb (this is a variant of univerbation)

$$S v O V \quad \rightarrow \quad S V v O \quad \rightarrow \quad SVO$$

4.2. *The fronting explanation*

Word order is obviously not like an inflection which can be present or absent on a lexical host. Rather it is an inherent structural property of all clauses and shows a high degree of variability as it is closely bound up with the pragmatic device of topicalisation which has been appealed to as a motivation for word order change. All topicalisation interpretations assume that

- (11a) there are at least two types of word-order: a neutral, default type for simple declaratives and a special, marked type for topicalised sentences.
- (11b) there was a shift from marked type to default in the course of the language's history.

Prosodic word order can be reanalysed as syntactic and hence fixed (Harris and Campbell, 1995, 233ff.); this is essentially the same as saying that topicalised word order can become canonical.

The topicalisation hypothesis cannot be dismissed out of hand. In present-day English, where the verb is the topicalised element, a VS structure is found with an obligatory locative adverb.

- (12a) *Here comes our favourite linguist.*
- (12b) *There goes the nine o'clock ferry.*

The first type is of considerable vintage in English and is found very frequently at the beginning of entries in the Anglo-Saxon chronicle (Hopper, 1979, p. 220–6).

- (13) *Her rad se here ofer Mierce innan East Engle...*
 ‘Here (in this year) rode the army across Mercia into east Anglia...’

In such sentences the verb is in second position, thus providing a pattern which corresponds in verb position to the later SVO word order. This AdvV order is one which is still present in English and can be seen in examples like the following.

- (14) *And build the house they did when they got the money.*

4.3. *Peripheral to central shift*

This is not so much a different explanation as an account, to be found in Stockwell (1977) for instance, of how topicalised sentences with initial adverb and postposed subject² came to be reinterpreted by later generations of speakers by assuming that the pre-verbal position of the adverb could also be occupied by a subject.

- (15) Adv V S O → S V O (both verb-second structures)

The shift from peripheral to central status is the result of such a reinterpretation and led to the establishment of SVO as canonical word order. Other authors seem to agree on this scenario for a change in word order. Steele (1978) believes that Second Position Enclisis can be a motivation for constituent order change according to the following chain (similar to Lass’s interpretation of the workings of Wackernagel’s Law in English).

- (16) S O V → S = aux O V → S V[+fin] O V[-fin] → SVO

The view that SVO is somehow less marked can be dubbed the *natural ordering principle*. It simply states that subjects tend to precede objects, just as animate nouns tend to precede inanimate ones and the agent comes before the patient in a clause with both. It also supposes that the natural position for subject and object is to be left and right of the verb, respectively. Such a word order may well result from universal principles of pragmatic organisation where the actor in a setting is first mentioned and then the affected object afterwards. Closely linked with this view is the opinion that SVO allows the easiest recognition of objects and hence was furthered at a stage of English when inflections were decaying rapidly, an assumption also made by Vennemann in his account of the rise of SVO on inflectional decline in Germanic. The recognition of major clausal categories may be a welcome effect of SOV to SVO but cases like Icelandic show that the shift can take place without the demise of nominal inflectional morphology.

² Stockwell (1984, p. 583) gives examples of rightward movement of heavy subjects in English such as ‘All of a sudden was seen a thundering herd of angry elephants’.

5. Word order change in Old Irish

5.1. The outset for the Celtic languages

Assuming that Insular Celtic is a continuation of Continental Celtic in the British Isles it is legitimate to ask what type of word order the historically prior form of Celtic had. This question cannot be answered with great clarity. There is general agreement that Gaulish is basically SVO with remnants of an SOV order. Celtiberian (Russell, 1995, p. 283; Eska, 1989, 176f; Schmidt, 1976, 54f) is SOV, going on the evidence of the Botorrita inscription (an early Celtic inscription found in the north of Spain), so that Continental Celtic as a whole provides a mixed picture.

There are different views on how SVO arose in Gaulish. Koch (1991) would seem to think that SVO (as opposed to the inherited SOV of Indo-European) arose though an unaccented main verb slipping into second position, hence SVO which he reconstructs for Gaulish, very early Welsh and Irish.³

5.2. The verbal system of Old Irish

Before continuing to consider word order change in Old Irish it is necessary to remark very briefly on the verbal system of Old Irish. There are two types of verbs, simple and compound. The compound verbs consist of Preverb, Stem and Inflection. The inflections are inherited Indo-European endings as seen in Latin for instance. The preverbs are particles or prepositions which alter the meaning of the stem. For instance the stem *léic-* ‘leave’ attains the meaning ‘throw’ when the particle *do-* is prefixed to it: *do-leíc-*. The preverbs can be quite complex as seen from the following example (see the review in McCone, 1987).

(17)	<i>ga(i)r</i>	‘call’
	<i>to-ga(i)r</i>	‘summon’
	<i>for-cum-ga(i)r</i>	‘command’
	<i>to-ar(e)-in-ga(i)r</i>	‘promise’

There is a further category of verbal prefixes called ‘conjunct particles’ (Thurneysen, 1946: 28). These consist functionally of negatives (*ní, na, nad*), interrogatives (*in*), prepositional relatives (*ar-a* ‘for which’, *for-(s)a* ‘on which’, *la-sa* ‘with which’, etc.). Verbs are classified as *dependent* when they are preceded by a conjunct particle and *independent* in all other cases. They are a couple of verbs which in Modern Irish still have distinct forms for these former categories: *chonaic mé* ‘I saw’ but *níor fhaca mé* ‘I did not see’. The preverbs give rise to two basic types of inflections (1) *absolute*

³ There are examples of verb-final word order in Irish. But as Russell points out (1995, p. 290) these cases are difficult as they constitute verse (alliterative or rhyming). There is also an amount of alliterative semi-metrical material called *rosca*. Here verb-final structures are found but not in simpler prose style.

which refers to the independent simple verb and (2) *conjunct* which refers to verbs containing proclitics, i.e. pretonic preverbs or conjunct particles.⁴

Pretonic particles are used in Old Irish to carry infixed pronouns. In Classical Old Irish object pronouns are enclitic and of course do not carry an accent. Due to a condition called *Vendryes' Restriction* pronouns are infixed into compound verbs or between a negative and a verb.

- (18) *do-beir* 'he gives' *dom-beir* 'he gives me'
 ní-tabair 'he does not give' *ním-thabair* 'he does not give me'

The separation of a compound verb into pre-verb and verb is known in Irish studies as *tnesis* (lit. Gr. 'cutting'). This plays an essential role in the standard wisdom on the rise of VSO in Irish (see below). It is also to be observed in Old Irish and affords an attestation of OV word order.

- | | | | | |
|-------|-----------|-------------|---------------|---------------------------|
| (19a) | <i>to</i> | <i>boin</i> | <i>beir</i> | 'he gives a cow' |
| | PreV | cow | gives | |
| (19b) | <i>ní</i> | <i>tarb</i> | <i>tabair</i> | 'he does not give a bull' |
| | NOT | bull | gives | |

Various authors have remarked on the regular alliteration between object and verb form, i.e. this type of structure is based on a prosodic pattern and used frequently in verse (Russell, 1995, 288f). The assumption here is that it embodies an older pattern where *tnesis* can still be seen operating.

5.3. Two internal explanations

5.3.1. Wackernagel's Law plus univerbation

In a seminal article in 1963 Calvert Watkins (Watkins, 1963) offered an explanation for the rise of VSO word order in Irish which has become the standard wisdom on the matter since. His account requires a number of stages in a specific sequence, that is relative chronology is of the essence here.

- (20a) There was SOV in Indo-European and apparently there was a marked word order with initial verb.
- (20b) In Celtic, preverbs were separated from verbs (*tnesis*, see earlier) to carry unstressed enclitics to the beginning of the sentence because these tended towards second position (Wackernagel's Law).
- (20c) Univerbation sets in later (Russell, 1995, p. 303) and reverses *tnesis*.

⁴ The compound verbs can be taken to have arisen from a sentence connective or pre-verbal particle merging with a verbal base. This interpretation is in accordance with the view that the complex morphology of Old Irish is a result of fusion of syntactic elements into morphological units given the strong (stem-initial) stress accent of Irish.

Uniquely in Celtic, univerbation shifted the verb to the front of the sentence to merge with the preverb/enclitic (PE). The direction of univerbation was determined in Celtic by *Vendryes Restriction* (see earlier) whereby enclitics had to be embedded into a complex verb or suffixed to a simplex verb. As the enclitics had to remain in second position (Wackernagel's Law) the lexical verb was pulled to the front resulting in verb-initial structures.⁵

(21) 'PE...V → PE'V P = preverb, E = enclitic, V = lexical verb)

For the present discussion it should be mentioned that, in the further course of the history of Irish, preverbs became opaque and fused with the lexical verb or were lost. The enclitic pronouns were later realised as independent object pronouns or so-called prepositional pronouns (combinations of preposition and pronoun), both of which occurred after the verb, leaving the latter in initial position and thus firmly establishing VSO in Irish.

In summary, the scenario as envisaged by Watkins consists of the following steps in chronological order. It rests critically on the notion that tmesis is an archaic and relic feature in Irish which stems from the Indo-European background.

- (22a) Input to Celtic is SOV from Indo-European
- (22b) Tmesis leads to pre-verbs moving to initial position
- (22c) Wackernagel's Law takes effect with unstressed enclitical pronouns appearing in second position after left-dislocated pre-verbs.
- (22d) Vendryes Restriction demands that pronouns be infixes between pre-verb and verb stem, so the lexical verb moves to the front to infix second position enclitics (univerbation)

5.3.1.1. Critique of Watkins' account. In the earlier presentation I have deliberately avoided using the word "explanation", preferring "account" instead. The reason is that 'account' is of a more descriptive nature. The essential criticism of Watkins' internal account of Celtic developments is that it simply states how they took place. To take the first essential stage in this account: why did tmesis occur in Celtic and not in all other Indo-European languages? Why should the general prosodic preference, enshrined in Wackernagel's Law, have taken effect in Celtic, but not in many of the other languages? Tmesis, as postulated by Watkins, is a fairly radical rearrangement of pre-Old Irish Celtic syntax and one which, by his account, took place just to shift enclitics to second position in a sentence (they were already in second position in the verb complex at the end of a sentence). The disruption by non-adjacency which this led to, i.e. Preverb + Enclitic at the front and Verb at the end of

⁵ McCone claims that this univerbation gave rise to a different accentual pattern, PE'V, which contrasted with 'PV (preverb without an enclitic) and that this ultimately is the source of the deuterotonic and prototonic distinction among verbs in Old Irish.

the sentence, must have been considerable and indeed it is precisely this which is appealed to by Vendryes Restriction which, again in this account, was the force leading to later univerbation by the shift of the lexical verb from final to initial position.

5.3.2. *The fronting account*

Ahlqvist (1980) sees cleft sentences as providing the model for a generalised VSO pattern. The type of clefting which is attested throughout the history of Irish has the following structure.

- (23) *Topicalisation in Irish*
 VERBFORM + Non-Topicalised Element →
 COPULA + Topicalised Element + RELATIVE-VERBFORM...

Tháinig sí go mall chugainn.
 [came she slowly towards-us]
Is go mall a tháinig sí chugainn.
 [is slowly that came she towards-us]
 ‘She came slowly towards us’

This type of syntactic re-arrangement cannot be regarded, however, as the reason for VSO arising. The very purpose of this topicalisation clefting—with a copula at the front and the main verb in a following relative clause—is to preserve the canonical VSO word-order. So the fronting explanation can at best be a part of a convergence scenario in which it was a contributory factor in the establishment of VSO but not its source. Viewed from this angle the account would seem to have something to offer to the discussion, particularly given the widespread nature of fronting in cleft sentences in Irish.

The type of topicalisation just discussed implies that VSO word order was already established or in the process of doing so. However, it could just conceivably be the case that verb-initial clauses arose from an earlier type of topicalisation which did not involve clefting, i.e. the verb was shifted to initial position without being relegated to a relative clause.

Lehmann (1992, 409f) gives examples of present-day German sentences like *Müßte man mal darüber nachdenken* ‘One should think carefully about this’ and postulates that this VSO word order could be a parallel case to other languages which have this as canonical word order. Sentences like these are elliptical (here the adverbial element *Da* ‘now’ has been deleted at the beginning of the sentence) but they would require a considerable quantitative occurrence to provide a model for a later reanalysis as canonical.

The fronting of verbs can be realised in different ways in different languages. To take two well-known cases, present-day English and French, one can see that the former uses *there* for such purposes whereas the latter uses VSO directly.

- (24a) *There remains the basic problem...*
 (24b) *Reste le problème fondamental...*

5.3.3. *Peripheral to central shift*

This interpretation parallels that offered for Old English. It follows on the fronting account and sees a change in status for topicalised word order from peripheral to central. According to Disterheft (1984, pp. 101–4) there was probably an abductive reanalysis of indeterminate surface structures by language learners, e.g. topicalised word orders were interpreted as non-topicalised by a later generation.

6. The substrate case

6.1. *What needs to be explained?*

The substrate case for Irish assumes that the language or languages which were in Ireland before the arrival of the Celts, roughly around 500 BC, played a significant role in the development of Celtic on that island.⁶ As outlined above, the standard wisdom on the specific features of Irish—above all its syntax—is that these arose entirely through internal developments. The question to be considered for this section is the likelihood of forces outside the language causing a typological reorientation of the kind which Irish apparently underwent sometime before the first attestations of the language appeared.

Although Irish is unassailably Indo-European there are two major aspects of the language which have to be accounted for and which have been present from the very beginning.

- (25a) The post-specifying nature of Irish syntax
 (25b) The large number of non-Indo-European words

Old Irish is already (almost) totally verb-initial with modifiers following their heads (see earlier) so that the typological realignment which took place after the move from the continent—a period at which the language showed SOV, or at most SVO, word-order—was complete, yielding a typologically harmonic state which is remarkable in its completeness (Stenson, 1981).

The lexicon of Irish presents a number of anomalies when viewed solely from within an Indo-European framework. Irish is unusual in having many instances of word-pairs where one word is Indo-European and the other unaccounted for (see also Vennemann gen. Nierfeld, 1998).

	Indo-European		unaccounted for	
(26)	<i>muir</i>	‘(large)sea’	<i>farraige</i>	‘sea’
	<i>cathair</i>	‘town’	<i>baile</i>	‘settlement’
	<i>bean</i>	‘woman’	<i>ainnir</i>	‘(young) woman’

⁶ The substrate case is taken to apply to the entire British Isles but, given the theme of this paper, only the situation in Ireland is considered.

That these words stem from the pre-Celtic languages of Ireland is largely accepted. With regard to the post-specifying nature of the language, opinions are very divided. It is fair to say that there is a general hostility among Irish scholars to attributing a causal influence to pre-Celtic languages in the domain of syntax. What is remarkable from any perusal of the literature on the subject is that contact explanations of the idiosyncrasies of Irish syntax all stem from non-Irish scholars, or those who worked primarily on English, see Adams (1975), and who range from Welsh to German and Swiss. The Welsh scholar Morris-Jones in a seminal article on the subject (1900) attributed key features of Welsh syntax—and by extension of Irish as well—to a non-Indo-European source. He remarks that the “non-Celtic inhabitants of Britain are believed by anthropologists to be of the same race as the ancient Iberians, and to have migrated through France and Spain from North Africa, where the race is represented by the Berbers and the ancient Egyptians” (Morris-Jones, 1965 [1900], p. 618).

This notion was taken up later by Julius Pokorny, a Jewish Swiss scholar, who published a significant many-part article in 1927–1930 on the non-Indo-European substrate in Celtic. He followed this up with a number of further studies, e.g. Pokorny, 1949, in which he sought to strengthen the case. Pokorny’s work was largely ignored by the scholarly community with the exception of his fellow Swiss Heinrich Wagner. Wagner is known and respected among Irish scholars for his monumental atlas of Irish dialects (Wagner, 1958), but it is his monograph *Das Verbum in den Sprachen der Britischen Inseln* ‘The verb in the languages of the British Isles’ (1959) which is his original contribution to the question of a possible non-Indo-European substrate in Celtic. In addition the book lists many features of Irish and English, verbal structures for example, which Wagner sees as areal features of the British Isles (see Hickey, 1999 for a discussion of many of these). This work has been passed over by Irish scholars, not just because it is written in German but because of the implication it contains that Celtic owes much of its distinct linguistic profile to languages outside of Indo-European.

6.2. *Recent research*

The remarks just made would be just be a note on the history of Celtic studies were it not for a revival of interest in the question of non-Indo-European influence (Gensler, 1993). In the past decade a large number of papers by Theo Vennemann, a German scholar working in Munich, have been arguing the case for two important substratal influences on western Indo-European.⁷ Vennemann’s consideration of external input to the earliest stages of recognisable branches of Indo-European was prompted by his realisation that many of the accepted traditional explanations for disputed phenomena do not, in his opinion, stand up to closer examination. The stringency of his argumentation, his wide knowledge base, his respect for linguistic

⁷ Vennemann (1994, p. 272) rejects other suggestions, such as Salmons’ notion of Finno-Ugric influence on North European languages (Salmons, 1992).

probability and for all relevant factors, structural and typological, as well as his awareness of plausible social scenarios have rendered his case for Vasconic and Atlantic influence on early Indo-European in the west of the continent all the more worthy of serious consideration.

His most forceful plea for a substratum has been in connection with the hydronymy of ‘Old Europe’ (Hans Krahe’s term) which is traditionally taken by comparative philologists to be of Indo-European origin. In Vennemann (1994), he showed with great conviction that a non-Indo-European source is most likely for the oldest river names in Europe. This source is identified by Vennemann as being the family of languages of which the only surviving member is present-day Basque. He terms this family *Vasconic* and has been adducing further evidence for its profound influence on various branches of Indo-European, in particular Germanic, Italic and Celtic, the three most westerly branches of the family. Not all scholars, impressed by his work on hydronymy, have followed him in seeing much Vasconic evidence in Germanic, for example in German place-names like Munich (German *München*) and Bavaria/Bohemia (German *Bayern/Böhmen*) or in the system of ablaut as seen abundantly in the strong verb system of Germanic (the latter a Semitic trace according to Vennemann, see Vennemann gen. Nierfeld, 1998 and 2000 for instance).

It is essential to grasp at this stage that Vennemann’s conception of pre-Indo-European western Europe assumes two language families, *Vasconic*, as just mentioned, and *Atlantic*, a family unrelated to the first⁸ and which is assumed to be connected genetically with Afro-Asiatic (specifically Semitic), having spread northwards along the west coast of Europe several thousand years BC (from the middle of the 5th millennium onwards, to be more precise, Vennemann gen. Nierfeld, 1997, p. 880).

Operating on purely external arguments, one needs this additional substratum to explain the development of post-modification in Irish (VSO word order, Noun + Adjective, Noun + Genitive phrases), because Basque is so clearly pre-modifying

⁸ The question of a possible connection between Basque and Arabic or Berber is one which has been considered repeatedly by many scholars over the past century or so (it goes back at least to Georg von der Gabelentz and Hugo Schuchardt). Löpeltmann (1968, XXX) believes that Basque is a Hamitic language and is the result of a migration which took thousands of years from the Orient to the Atlantic and which continued along up the west coast of the Atlantic to Ireland and then Scotland. To substantiate the matter many lexical correspondences are cited as in the following list.

Basque				
<i>aker</i>	‘buck’	<i>iker, akar</i>	‘mutton’	(Berber)
<i>umerri</i>	‘lamb’	<i>immar</i>	‘lamb’	(Arabic)
<i>anai</i>	‘brother’	<i>ana</i>	‘brother’	(Berber)
<i>nagusi</i>	‘lord’	<i>nogés</i>	‘lord’	(Hebrew)
<i>asto</i>	‘ass’	<i>ezet, ezed</i>	‘ass’	(Berber)

It should be mentioned here that some scholars have tried to demonstrate links between Basque and (South) Caucasian languages on the basis of similar correspondences.

(Saltarelli, 1988, 251f.) and Irish from its earliest attestations is so clearly post-modifying. The solution has been for Vennemann, and substratists before him, to appeal to a Semitic substrate which would have been the carrier of this typological orientation which infected the Celtic speakers in Ireland and England.

Vennemann explicitly maintains that Atlantic languages were present in Ireland before the Celts arrived there: ‘In Ireland—indeed in all of the British Isles with the possible exception of the land of the Picts—the Atlantic languages were later reduced to substrata by the Celtic conquest’ (Vennemann *loc. cit.*). The evidence for an Atlantic influence on west Indo-European which Vennemann offers is lexical. However, words like *star*, which he seeks to demonstrate are Atlantic in origin (following an older suggestion), are of little help in the current context. What one finds frequently in Irish is that the semantic equivalent has some entirely different origin - either as a type of compound (‘star’ is Modern Irish *réalt* which is now an opaque compound from Old Irish meaning ‘bright thing’) or a form which is etymologically impenetrable. For these reasons borrowings from Atlantic can hardly be shown in Irish, especially given that Atlantic was a substratum in the Celtic regions but a superstrate in the Germanic regions of continental Europe (see Vennemann *gen. Nierfeld*, 2000) and thus lexical influence is not to be expected. However, syntactic influence may be discernible and this matter is considered in the next section.

6.3. *Irish-Semitic parallels*

The major search here is for structural parallels, especially those which are indicative of common typological organisation. Exact formal parallels between Modern Irish and forms of Semitic are in fact of less interest as they are more likely to be the result of accidental and independent convergence in the 3000 years or so which have elapsed since Insular Celtic was in contact with a pre-Celtic, Atlantic substrate.

Traditionally, Proto-Semitic is reconstructed as a VSO language with SOV structures arising in Akkadian due to contact with Sumerian (see Hetzron, 1987, p. 662 who echoes this traditional view). This word order has been retained to the present day, with a certain number of alternative SVO structures in forms of current Arabic. It represents the major structural parallel between Celtic and Semitic and will not be discussed here further, given its obvious nature.

For the present discussion one must of course bear in mind that even if there was contact with Atlantic and Insular Celtic, this is located several thousand years ago in pre-history. Furthermore, Arabic—to be considered presently—is taken to be just one of the languages which evolved out of an earlier Semitic. And Irish of course is just one representative of Celtic. Despite these caveats, a brief consideration of parallels between the two languages can perhaps show how they are similar, the implication being that the Celtic ancestor of Irish and the Atlantic sibling ancestors of Arabic are thus more likely to have been similar in syntactic structure through contact of Celtic with Atlantic.

The look and feel of Arabic is reminiscent of Irish in many respects. Below are a number of features which it shares with Irish, i.e. the same type of construction is used in both languages.

Structural parallels between Irish and Arabic

- (27a) Only a definite article exists, its absence implies indefiniteness
- | | | |
|--------|-----------------------------|------------------------|
| Arabic | <i>‘al-bint</i> ‘the girl’ | <i>bint</i> ‘a girl’ |
| Irish | <i>an cailín</i> ‘the girl’ | <i>cailín</i> ‘a girl’ |
- (27b) The so-called 7th form of a verb can be used in Arabic as an equivalent to the autonomous form of the Irish verb.
- | | | |
|--------|---|-----------------------|
| Arabic | <i>‘inkáсар al-baab</i>
[broke-7 the door] | ‘the door was broken’ |
| Irish | <i>briseadh an doras</i>
[broke the door] | ‘the door was broken’ |
- (27c) There is a structure, known as the *status constructus*, where only the second noun of a pair (that in the genitive) is marked for definiteness although the first is also definite (Holes, 1995, pp. 166–8).
- | | | |
|--------|---|---------------------------|
| Arabic | <i>sayya:ratu al-mudi:r</i>
[car of the director] | ‘the car of the director’ |
| Irish | <i>gluaisteán an mhúinteoir</i>
[car of the teacher] | ‘the car of the teacher’ |

One could perhaps further mention the phonologisation of secondary articulation, which took place in both languages, palatalisation/ velarisation in Irish and pharyngealisation/ non-pharyngealisation in Arabic.

6.3.1. The possible link with Berber

This Afro-Asiatic group occupied the whole of north-north-west Africa before the spread of the Arabs as of the sixth century so that on the grounds of geographical proximity to the Atlantic coast one should also consider Berber in the present context. Berber languages have gender (masc. and fem. like Irish), with rich verbal inflection and derivations by means of affixation and root inflection. Word order is VSO with SVO as an alternative. There is a slight vowel inventory with two series of consonants (pharyngeal and non-pharyngeal) although the distinction is not as strong here as in Arabic. Various authors have noted parallels between Irish and Berber: for instance, Morris-Jones (1965 [1900], p. 638) mentions the rarity of /p/ in Berber.

Finally it should be remarked that no matter how likely an Atlantic substrate influence on Celtic may appear to its proponents, it is not an explanation for the genesis of VSO and post-specification in Irish in any stringent sense: it simply suggests where a certain typological orientation might have come from but not how it arose in the first place, i.e. the contact account just pushes back the question further into the past.

6.4. Where does VSO occur?

The contact case receives a degree of support from another consideration, this time the geographical distribution of languages with a certain word order. If one

considers the world-wide distribution of VSO then one notes four main areas in which it is to be found (1) the Celtic realms, (2) the Semitic language area (with Nilotic⁹), (3) north-west United States and western Canada,¹⁰ (4) in Polynesia (Austronesian).

Nichols (1992) notes that clause alignment (nominative-accusative or ergative-absolute) is something which shows great stability over time whereas word order changes relatively quickly but shows areal stability (see also Hyman, 1975). This would seem to indicate that word order is a phenomenon which diffuses areally between languages. One reason for this is that languages frequently have many word order types at any one time: a basic one and others used for topicalisation procedures. There may occur a shift in status from topicalised to basic, as noted above, this time under the influence of another language which already has the order in question as basic.

There have been various studies of the distribution of the world's languages according to word order. Steele (1978), for instance, has 10 VSO languages in her sample of 63 languages, all of which are Austronesian or native American. The relative frequencies of major word order types in her study are as follows: SOV (30), SVO (20), VSO (10), VOS (3) (Steele, 1978, p. 590). The percentage of VSO languages is rather high in this sample (over 15%). Other studies, such as that by Tomlin (1986), suggest that verb initial languages account for not more than 10 percent of all languages. Verb final is the most common type and is paralleled by agglutination morphologically. SVO is second in the list of most common types (with Tomlin et al., 1986).

In his appendix Tomlin (1986, pp. 155–259) lists 105 from a total of 1063 languages which are VSO; see also the language index in Hawkins (1983, pp. 319–42). Hawkins (1983, 156f.) notes that VSO languages are more frequent than VOS ones and of course SVO is the most frequent of all. There would seem to be a connection between VOS and VSO. Those languages with VOS are in areas (or groupings) where VSO also occurs.

7. Concluding remarks

Irish and English are both remarkable in that they underwent a basic typological reorientation in their early stages. While the input was ultimately the same—inherited SOV from Indo-European—the outcomes were quite different, given the specific nature of the Irish verb. In both cases there are different suggestions concerning the

⁹ Givón (1977, p. 241), citing a manuscript by Creider, mentions the Nilotic languages Nandi, Kipsigis, the Austronesian languages Tongan, Tagalog, Fijian, Samoan, Malagasy. Payne (1995) does not consider Celtic but establishes for the languages she does look at that (Mam, Mayan and Maasai (Eastern Nilotic) that certain elements do occur before the unusually initial verb, above all negators, interrogatives and various other adverbs. The same is true of Irish.

¹⁰ Among the languages showing VSO here are Chimakuan, Wakashan and Salish languages (Ruhlen 1987, 288f.) and the geographically more distributed group of Penutian languages (west coast of Canada and the United States extending down into Mexico).

forces which led to the reorientation, but clear parallels exist in that both Wackernagel's Law and fronting have been named as significant factors in the typological realignment of both languages. In addition contact was a possible source of a new word order model for Irish. Given the fact that the contact was in pre-history there can be no question of any kind of proof forthcoming so that the contact case depends largely on the quality of the linguistic argumentation and ultimately on the relative weight which scholars are prepared to accord internal and external factors when these are in competition as explanatory models for attested linguistic change.

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