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# Position as a behavioral property of subjects

The case of Old Irish

**Abstract:** A subject analysis of oblique subject-like arguments remains controversial even across modern languages where the available data are not finite: while such arguments are considered syntactic subjects in Icelandic, they have more often been analyzed as objects in Lithuanian, for example. This issue has been left relatively neglected for the ancient Indo-European languages outside of Sanskrit (Hock 1990), Gothic (Barðdal & Eythórsson 2012), and Ancient Greek (Danesi 2015). In this article, we address the status of oblique subject-like arguments in Old Irish, whose strict word-order enables us to compare the position (relative to the verb and other arguments) of nominative subject arguments of the canonical type to oblique subject-like arguments. We first establish a baseline for neutral word-order of nominative subjects and accusative objects and then compare their distribution to that of oblique subject-like arguments under two conditions: i) on a subject analysis and ii) on an object analysis. The word-order distribution differs significantly across the two contexts when the oblique arguments are analyzed as syntactic objects, but not when they are analyzed as syntactic subjects. These findings add to the growing evidence that oblique subject-like arguments should be analyzed as syntactic subjects, although their coding properties are non-canonical.

**Keywords:** Old Irish, Oblique Subjects, Subject Properties, Case, Word Order

## 1 Introduction

One of the long-standing puzzles of language is the interaction between grammatical relations and case marking. Traditional and school-grammar handbooks rely heavily on the consistency of case marking in the identification and definition of subjects; subjects are assigned nominative case, while objects are in one of the oblique cases. However, in practice, this “rule” does not describe all subjects in all languages, cf. Andrews 1976 for Modern Icelandic and Masica 1976 for the South

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Asian languages; see also Barðdal 2000 on the obsolescence of the equation of subject with nominative case for Old Scandinavian.

Since the 1970s, non-canonically case-marked subjects have been documented in the world's languages far beyond what would be expected according to the traditional view of subjects as the nominative argument of a clause, see e. g. Hermon 1985 on Native American languages, Verma & Mohanan 1990 on Dravidian, Steever 1998 on Dardic, Shibatani 1999 on Japanese, Bickel 2004 on Tibeto-Burman, Moore & Perlmutter 2000 on Russian, Yoon 2004 on Korean, Rákosi 2006 on Hungarian, Landau 2009 on Hebrew, and Verbeke, Kulikov & Willems 2015 on Indo-Aryan, to mention only a fraction of the relevant literature. Within the Indo-European language family, there is a consensus in the field that there are oblique subjects in Modern Icelandic and Modern Faroese (Andrews 1976; Thráinsson 1979; Zaenen, Maling & Thráinsson 1985; Barnes 1986; Sigurðsson 1998; Jónsson 1996; Barðdal 2001 etc.), while opinions are more divided with regard to German (Fanselow 2002), Russian (Moore & Perlmutter 2000), Romanian (Rivero 2004), Lithuanian (Holvoet 2013), Italian (Benedetti 2013), and Spanish (Willgohs & Farrell *forthc.*), *inter alia*, where oblique subject-like arguments seem to pass some but not all of the subject tests. The disagreement in the field raises the theoretical and methodological issue of where to draw the line between the subject tests that count as necessary and sufficient for defining an argument as a subject, and those that do not. This in turn raises the question of whether an independent definition of subject is not more desirable than a definition based on adherence to the subject tests (see Barðdal 2013).

While there has been extensive work on the status of oblique subject-like arguments in some of the other Indo-European languages (Hock 1990; Rögnvaldsson 1991; Rögnvaldsson 1995; Rögnvaldsson 1996; Allen 1995; Kristoffersen 1996; Falk 1997; Faarlund 2001; Barðdal & Eythórsson 2003; Barðdal & Eythórsson 2012; Eythórsson & Barðdal 2005; Fedriani 2014; Ingason, Sigurðsson & Wallenberg 2011; Danesi 2014; Grillborzer 2014), especially in Germanic, there is next to no work on their syntactic behavior in Old Irish. One of the problems arising when investigating subjecthood in the ancient and classical languages of the Indo-European family is freedom of word-order, as word-order is one of the tests used successfully in subject research in modern languages. This is particularly true for Vedic Sanskrit, Avestan (poetic texts), Tocharian, Latin, and to some extent Ancient Greek. In Old Irish, however, word order is considered to be relatively fixed compared with other ancient Indo-European languages (Thurneysen 1946: 327; McCone 2005: 47, cf. Mac Giolla Easpaig 1980: 28), possibly with the exception of Hittite.

Because of the strict word-order in Old Irish, the position of nominative subjects and oblique subject-like arguments can be compared to determine if they share this syntactic behavior; if consistency is found across the two types of case-marked

arguments, that constitutes strong evidence for an analysis of these oblique subject-like arguments as subjects. Through this investigation, we also address a serious methodological problem, namely, how one can approach the concept of “subject” in languages which are limited by the content of ancient/fixed corpora, some even severely limited in size. Several tests for subjecthood, such as control constructions, require the argument in question to surface in a very specific syntactic context, whereas for word-order, any sentence is a potential data point.

In order to address this, we first empirically establish a baseline for Old Irish word-order, taking verbs that select for nominative subjects and accusative objects as our starting point. We then compare the neutral position of nominative subjects and accusative objects with the position of oblique subject-like arguments. Our results indicate that oblique subject-like arguments in Old Irish pattern in the same way as uncontroversial nominative subjects, suggesting that they are indeed behavioral subjects

The structure of this article is as follows. First, in Section 2, we give examples of oblique subject constructions from several early Indo-European languages and demonstrate their predicate and argument structure. In Section 3, we elaborate on the traditional subject tests, drawing on studies of both nominative and oblique subjects. There, we argue for the validity of word-order distribution as a means of distinguishing between subjects and objects in strict word-order languages like Old Irish. In Section 4, we consider word-order and subject position in Old Irish. Neutral word-order for Old Irish is given as VSO in the handbooks and we empirically confirm this fact for canonical nominative subjects. We discuss established and potential alternative analyses of oblique subject-like arguments and subsequently compare the behavior of nominative subjects to oblique subject-like arguments with regard to word-order distribution. The results are analyzed and discussed in Section 5. Since the existence of oblique subjects has been most conclusively established for Icelandic, we compare the results from Old Irish with Icelandic. A summary and overall conclusions are presented in Section 6.

## 2 Object of investigation: the oblique subject construction

The object of our investigation, the oblique subject construction, is shown in (1) below with examples from all 11 branches of Indo-European (cf. Conti 2009; Luraghi 2010; Barðdal, Smitherman, et al. 2012; Barðdal, Bjarnadóttir, et al. 2013; Dahl & Fedriani 2012; Matasović 2013; Danesi 2014; Fedriani 2014; Viti 2016, inter alia):

- (1) a. Old Icelandic  
***Þuríði batnaði sóttarinnar***  
 Þuríður.DAT recovered.3SG illness.the.GEN  
 ‘Þuríður got better from the illness’ (Eyrbyggja saga, ch. 55)
- b. Latin  
***mihi tua consilia displiceant***  
 me.DAT your counsels.NOM.PL displease.3PL  
 ‘I do not like your counsels’ (Cic. Att. 9.9)
- c. Ancient Greek  
***ού σφι ήένδανε τὰ hoi Aleuádai emekhanônto***  
 not them.DAT please.3SG RP.NOM.PL the.NOM.PL Aleuadae.NOM.PL plan.3PL.IMPF  
 ‘They did not like these things’ (Hdt. 7.172)
- d. Vedic Sanskrit  
***śám no astu dvipáde***  
 well our be.IMP.3SG biped.DAT  
 ‘Well be to our biped’ (RV, X, 165, 1)
- e. Old Russian  
***protivítʹ ze mi sja paky straxʹ***  
 hinder.3SG but me.DAT REFL again fear.NOM  
 ‘But I am hindered by fear again’ (Sreznevskij 1893–1912: 1591)
- f. Old Lithuanian  
***nubôs iiémus giwatá***  
 bore.FUT.3SG they.DAT.PL life.NOM.SG  
 ‘They will get bored with life’ (DP 14,47)
- g. Old Albanian  
***e aty e muor gjumi***  
 and there him.ACC.SG took sleep.NOM.SG  
 ‘and there he slept’ (Buz. 118.51–52)
- h. Classical Armenian  
***part ē n-ma ertʹ-al y=Erowsalem***  
 necessity be.3SG.PRS he-DAT go-INF to=Jerusalem  
 ‘He must go to Jerusalem’ (Matthew 16.21)
- i. Tocharian  
***kektseñts= ekñinta mā (mä)ñ(k)ā-n(tä)r=me***  
 bodies.GEN.SG possession.NOM.PL not lack-3PL.SUBJ-MP=them.OBL  
 ‘if they will not lack the possessions of the body ...’ (THT 24 b3)

## j. Hittite

*nu=kan* <sup>d</sup>**GAŠAN-li** [k]uit Ē-er pukkan  
 CON=PTCL lady.DAT which.NOM house.NOM hateful.NOM  
 ‘And whatever house the lady (i. e. Ištar) hates’

(KUB 24.7 i 24–25; cf. Luraghi 2010)

In the above examples, the verbal predicates can be divided into two types, a) verbs and b) compositional predicates. For example, the Old Icelandic example in (1a) includes a single verb *batnaði* ‘recovered’ and the same is true for Latin (*displceant* ‘displease’), Ancient Greek (*héndane* ‘please’), Old Russian (*protivítʹ-sja* ‘hinder’), Old Lithuanian (*nubôs* ‘bore’), and Tocharian (*(mä)ñ(k)ā-n(tä)r* ‘lack’). Compositional predicates, in contrast, involve the combination of a copular verb, which may be omitted, or other light verbs, together with a predicative noun, adjective, or adverb. For example, in Classical Armenian, the compositional predicate is *part ē* ‘is necessary; must’, and the subject-like argument is dative, exactly as in the examples with a single verb. Light verbs are also possible in this context, as in the Old Albanian example *muor gjumi* ‘fall asleep’, literally ‘be taken by sleep’. The predicates in Vedic Sanskrit and Hittite are also compositional predicates, although the copula is omitted in Hittite.

The examples in (1) above also illustrate different case and valency patterns for the oblique subject construction. The Dat-Gen pattern is found in the Old Icelandic example, the Dat-Nom pattern in the Latin, Ancient Greek, Old Russian, Old Lithuanian, and Hittite examples. Acc-Nom is instantiated in the Old Albanian example, Dat-Inf in Classical Armenian, while the subject-like argument in the Tocharian example, Obl, in the Obl-Nom pattern represents a phonological merger of the earlier dative and genitive, hence the more general term *oblique*. The intransitive Dat-only is found in the Sanskrit example. These case patterns are only a subset of the different patterns found for the oblique subject construction across the Indo-European language (see Barðdal 2014 for valency tables for Germanic, Baltic, Slavic, Latin, and Ancient Greek).

Consider also the following example from Modern Icelandic, containing a compositional predicate *vera kvöl* ‘have pain, suffer’. This compositional predicate consists of the copula ‘be’ together with a noun, *kvöl*, which is in the nominative case.

## (2) Modern Icelandic

**Honum** eru þessar deilur kvöl  
 he.DAT are.3PL these.NOM disputes.NOM pain.NOM  
 ‘He suffers from these disputes.’

It is indubitable that the dative subject-like argument is a syntactic subject in Modern Icelandic. What is also clear from (2) is that the copula agrees with the

nominative argument *bessar deilur* ‘these disputes’. Nominative agreement of this type is typically found throughout the Indo-European languages (see Section 3 for a further discussion). The nominative argument, moreover, can be shown to behave syntactically as an object in Icelandic. The criteria underlying this analysis are based on syntactic behavior and not on case-marking and agreement properties, as would be common in traditional grammar. The Icelandic compositional predicate in (2) above, although containing the copula ‘be’, is not a standard copular clause of the type *John is a doctor*, where the subject is linked with ‘be’ to its predicative subjective complement. Instead, it is analyzed as a two-place predicate in Icelandic with a dative subject and a nominative object.

Turning to Old Irish, the data for the present article come from the Würzburg Glosses (750 CE) in order to limit the study to a strict definition of “Classical” Old Irish. Two examples are given below, one with an accusative subject-like argument (3a) and one with a dative (3b) (for more examples, see Section 4.3 and the appendix).

- (3) a. *is-cíth linn etarscarad coirp et-anme*  
 COP-weary with.us.ACC separation.NOM body.GEN et-soul.GEN  
 ‘we find the separation of body and soul weary’ (Wb. 15c12)
- b. *mad aill duib cid accaldam neich diib*  
 if.COP.PRS.SUBJ.3SG desire.NOM to.you.DAT even conversing.NOM any.GEN of.them.DAT  
*darigente*  
 PV.it.do.PERF.SEC.FUT  
 ‘if you desire even to talk with any of them, you could do it’ (Wb. 13b3)

The predicates under investigation for Old Irish are compositional predicates, much like the examples from Vedic Sanskrit, Classical Armenian, Hittite, and Modern Icelandic in (1) above. These compositional predicates in Old Irish are combinations of the copular verb and a predicative noun or adjective.<sup>1</sup> Importantly for us, these compositional predicates also occur with dative or accusative subject-like arguments, exactly as in the examples in (1–2) above. The subject-like argument in our data is represented by a prepositional phrase, continuing older Indo-European accusatives and datives (e. g. Thurneysen 1946: 181–182). Although independent datives do occur in Old Irish, mostly in comparative constructions and in apposition with personal pronouns, they are rare and largely limited to poetry (Thurneysen 1946: 160–161). We motivate our analysis of the prepositional phrases as subject-like arguments in more detail in Section 4.3.

<sup>1</sup> For a discussion of the constructions with *do* + verbal noun, cf. Stüber 2009; these are, however, not relevant for our purposes.

Independent accusatives are also common in Old Irish, primarily as direct objects with transitive verbs. Our corpus presently contains no examples of independent accusatives as subject-like arguments. As both the prepositional dative and the prepositional accusative continue the Proto-Indo-European independent morphological dative and accusative respectively, they are equivalent to non-nominative arguments in languages such as Ancient Greek, Sanskrit, and Latin, where these constructions contain independent dative and accusative forms.

To summarize, we argue that, as in Vedic Sanskrit, Classical Armenian, Hittite, and Old Icelandic, the Old Irish examples of COP + noun/adjective are compositional predicates with one or two arguments. In Section 4, we discuss the status of the oblique subject-like argument in these constructions and argue that it should be analyzed as a subject. We discuss and reject potential alternative analyses for these constructions. Finally, we discuss word-order and show that these constructions in Old Irish follow regular VSO word-order. Before discussing oblique subject-like arguments in Old Irish in detail, a few comments on subject behavior are in order.

### 3 Subject behavior

A classic comprehensive list of subject properties is that devised by Keenan 1976 as a means of developing a universal definition of subjects. Further research has shown that the concept of subject hardly has universal applicability and the common opinion in the field is that subjects are at least language-specific, if not construction-specific (Dryer 1997; Croft 2001; Culicover & Jackendoff 2005; Van Valin 2005; Barðdal 2006; Bickel 2011).

The set of universal subject properties put forth by Keenan was divided into i) coding, ii) behavioral, iii) semantic, and iv) pragmatic properties. Of these, it is first and foremost the coding and the behavioral properties that have been used to distinguish between subjects and objects. The most widely used coding and behavioral properties from Keenan's list are the following (terminology ours):

- Coding Properties
  - Nominative Case
  - Agreement
  - Position
- Behavioral Properties
  - Reflexivization
  - Relativization
  - Coreferent Deletion in Conjoined Clauses
  - Subject-to-Subject Raising



- Object-to-Object Raising
- Omission in Control Infinitives

Keenan classifies nominative case and agreement together as coding properties. As our goal is to investigate the subject properties of non-nominative subject-like arguments, case marking is excluded from the list of applicable subject tests. It is also well known that agreement does not correlate with subject status but with nominative marking, for instance in Icelandic (Sigurðsson 1991; Sigurðsson 2002), as noted above in Section 2.

Control infinitives are considered to be the most conclusive evidence of subject behavior by many, as the subject argument of the infinitive is left unexpressed under identity with an argument of the matrix verb, which is not a property of objects (cf. Falk 1995; Rögnvaldsson 1996; Moore & Perlmutter 2000; Barðdal 2006; Barðdal & Eythórsson 2003; Eythórsson & Barðdal 2005). However, control infinitives are generally very rare in texts, and they are found even less frequently with oblique subject predicates. Control infinitives are even harder to find in languages with finite corpora.

Furthermore, Old Irish does not have infinitives of the type seen in Latin (*amāre* ‘to love’) or English (*to love*), but rather analogous constructions are composed of a copular verb and a verbal noun, the exact syntactic properties of which have yet to be investigated. Control constructions therefore present a poor environment for investigating subjecthood in Old Irish, as the data are sparse and perhaps even non-existent depending on the exact nature of the verbal noun construction.

Returning to Keenan’s list above, the last of the coding properties is position in the clause relative to the verb and other clausal elements. Position may be successfully used to distinguish between subjects and objects in several languages, most notably, of course, in languages with relatively fixed word-order. In such cases, neutral word-order is distinguished on the basis of information structure and frequencies.

The position of subjects relative to verbs and objects may be a useful subject test, as almost every single sentence is a data point for word order. If a consistent syntactic position is found for arguments that are canonical with respect to their coding (i. e. nominative), then one can use this as a baseline for testing the subjecthood of non-canonical subject-like arguments. In other words, we argue for the comparison of the behavior of oblique subject-like arguments with the behavior of i) canonical subjects and ii) canonical objects, in order to determine which of the two the subject-like obliques pattern with.

Observe that we have so far not presented any definition of “subject”, except to refer to the argument that occurs immediately after the verb in Old Irish. For a formal definition of subject, see Eythórsson & Barðdal 2005. However, for the

purpose of the present article, suffice it to say that by “subject” we mean all and any arguments of the verb that behave in the same way as a canonical nominative in Nom-Acc argument structure constructions, irrespective of case marking. Whether one calls Nom and Acc arguments in Nom-Acc argument structures “subjects” and “objects”, or “apples” and “oranges”, respectively, is irrelevant to the discussion here. What is important is the similarity in behavior between canonically case-marked subjects and non-canonically case-marked subject-like arguments. Upon finding such a similarity, not to mention identity, it can be concluded that non-canonically case-marked subject-like arguments share the same grammatical relation as canonically case-marked subjects, in this case the subject relation.

We now turn to word-order in Old Irish and whether or not oblique subject-like arguments pattern with unambiguous subjects or unambiguous objects.

## 4 Old Irish

In Section 4.1, we give an overview of word-order distribution in Old Irish, confirming the neutral word-order of Nom-Acc predicates as VSO in Section 4.2. Section 4.3 is devoted to the issue of oblique subject-like arguments, where we first refute a potential attribute analysis of the oblique, before we show that oblique subject-like arguments pattern with nominative subjects and not with accusative objects with regard to word-order properties.

### 4.1 Word-order

As mentioned above, Old Irish is a VSO language, which means that in sentences with neutral word-order, the finite verb always heads the clause—neither subjects nor objects can precede the verb, only adverbial elements and conjunctions can (cf. Thurneysen 1946: 327). Focus and topic constructions allow subject and object movement, but fronting of this type usually requires a cleft sentence and so the clause is still verb-initial. Example (4) shows neutral word-order.

- (4) *beoigidir in-spirut in-corp in-fect-so*  
 vivifies.3sg the-spirit.NOM the-body.ACC the-time.ACC-this  
 ‘The spirit now quickens the body’ (Wb. 13d7)

Variation in word-order is discussed in Mac Giolla Easpaig 1980, who gives seven potential motivations for non-VSO word-order, and we provide examples of most of these in (5): relative clauses, stylistic variation, heavy NPs, VN as subject or object of the clause, emphasis, reintroduction of a previously mentioned character

into the narrative, and change of focus. To this list we also add clauses with infixes object pronouns (5d), where the object pronoun is infixes to the verb. In accordance with Wackernagel's Law, these reflexes of Proto-Indo-European enclitic pronouns typically occupy second position in a clause-initial verb cluster (Russell 1995: 50; McCone 2006: 50).

## (5) a. Relative clause

*is-ferr lim-sa didiu aní tairci<sup>2</sup> in-bríg*  
 is-better with.me-EMPH then that.NOM which.produces.3SG the-privilege.ACC  
*móir sin duib-si*  
 big.ACC DEM to.you-EMPH  
 'I prefer, then, that which produces that great privilege to you'  
 (Wb. 12c31)

## b. Heavy subject

*Ferais fáelti móir friu Blathnath ingen Mind ben*  
 pour.PRT.3SG joy great to.them Blathnath.NOM girl.NOM Mend.GEN wife.NOM  
***Con Roí maic Dáiri***  
 Cú Roí.GEN son.GEN Dáire.GEN  
 'Blathnath daughter of Mend wife of Cú Roí mac Dáire bade them welcome'<sup>3</sup> (from Mac Giolla Easpaig 1980: 29, cited in Lash 2014: 279)

## c. Focus (clefting)

*is-tri-chretim iesu christi is-fírian cách*  
 COP-through-belief.ACC Jesus.GEN Christ.GEN COP-righteous.NOM everyone.NOM  
 'It is through belief in Jesus Christ that everyone is righteous' (Wb. 2b6)

## d. Infixes object pronoun

*ro-s-bridach ro-s-comalnastar ro-s-dánigestar dún*  
 PV-them-preached PV-them-fulfilled PV-them-granted to.us.DAT  
 'he has preached them, he has fulfilled them, he has granted them to us'  
 (Wb. 21b9)

Lash (2014) elaborates on Mac Giolla Easpaig's discussion and focuses on subject position in relation to sentential adverbs. Lash concludes that in addition to the subject position following the verb and its alternative final position as discussed by Mac Giolla Easpaig and shown in (5c), there is also an intermediate position for the subject following specific, demarcating adverbs. An example is shown in (6) below.

<sup>2</sup> The form *-tairci* is the prototonic form of *do-áirci*. Cf. McCone 1997: 14 for the use of the prototonic form in the relative.

<sup>3</sup> Blathnath's name is spelled variously as *Blathnat*, *Blathnait*, and *Blathnath* in the different sources. We follow Mac Giolla Easpaig's spelling.

- (6) *Do-ber danō rí Locha Léin a gíall do ríg Ciarraige fri a*  
 PV-give.3SG ADV king Loch.GEN Léin his hostage to king Ciarraige.GEN as his  
*folta tēcti.*  
 obligations proper  
 ‘The king of Loch Léin then gives his hostage to the king of Ciarraige in  
 accord with his proper obligations.’  
 (POMIC, WMS s.31; ed. 316.17–18, cited in Lash 2014: 281)

Excluding these clear word-order deviations, we consider the distribution of word-order for nominative subjects and accusative objects, on the one hand, and oblique subject-like arguments, on the other. Since Old Irish is a pro-drop language, only sentences with overt nominative subjects have been taken into account for determining neutral word-order.

## 4.2 Nominative subjects

In order to empirically test the claim that Old Irish is a VSO language and to establish a baseline against which oblique subject-like arguments can be compared, we coded 34 tokens drawn from 22 different Nom-Acc verbs (see Table 1) for word-order. Most of these verbs occurred only once or twice with overt subject and object. For this reason, we have drawn from a larger pool of verbs.

**Table 1.** Old Irish Nom-Acc verbs used to establish neutral word order

<i>as-ren</i> ‘repays’ <sup>4</sup>	<i>ind-nēat</i> ‘awaits’	<i>for-cain</i> ‘teaches’
<i>do-beir</i> ‘gives’	<i>caraid</i> ‘loves’	<i>ro-finnadar</i> ‘knows’
<i>gaibid</i> ‘takes’	<i>do-gní</i> ‘does’	<i>do-airchain</i> ‘foretells’
<i>beoigidir</i> ‘vivifies’	<i>línaid</i> ‘fills’	<i>fo-ruimi</i> ‘sets’
<i>do-coisgedar</i> ‘follows’	<i>cobraithir</i> ‘helps’	<i>scríabaid</i> ‘writes’
<i>imm-folngi</i> ‘effects’	<i>fo-ceird</i> ‘casts’	<i>do-áirci</i> ‘causes’
<i>berid</i> ‘brings’	<i>ro-cluinethar</i> ‘hears’	
<i>do-éicci</i> ‘looks’	<i>con-utuinc</i> ‘builds up’	

Two examples of Nom-Acc constructions are presented in (7) below:

- (7) a. *rocluinethar cách in-fogur*  
 hears.3SG everyone.NOM the-sound.ACC  
 ‘Everyone hears the sound’ (Wb. 12c22)

<sup>4</sup> Tokens collected from Kavanagh & Wodtko 2001, spelling and translation following the editors.

- b. *carad cách uaib-si alaile*  
 love.IMP.3SG each.NOM of.you-EMPH other.ACC  
 ‘Let each of you love the other’ (Wb. 23c1)

The word-order distribution for these Nom-Acc predicates is given in Table 2. There is an overwhelming preference for VSO word-order in Old Irish with 91% of the Nom-Acc tokens showing VSO and only 9% showing an inverted order between the subject and the object.

**Table 2.** Surface word-order for Nom-Acc verbs

VSO	VOS	N
31 (91%)	3 (9%)	34

The three VOS tokens are shown below. Examples (8a–b) are most likely subject-final because the subjects are indefinite, a restriction that is well known from Icelandic (Ottósson 1989; Bobaljik & Jonas 1996), Portuguese (Costa 2000), and Arabic (Brustad 2000), among other languages. Example (8c) has a heavy-NP subject (cf. example 5c above), which would account for the subject-final word-order; however, what counts as a heavy NP has not been clearly defined for Old Irish (cf. Mac Giolla Easpaig 1980: 29; Mac Coisdealbha 1998: 40).

- (8) a. *ni-táirci lessu utmille*  
 NEG-causes.PRS.3SG benefit.ACC.PL restlessness.NOM.SG  
 ‘restlessness causes no benefits’ (Wb. 27a28)
- b. *ni dénat firtu úili*  
 NEG does.PRS.3PL miracle.ACC.PL all.NOM.PL  
 ‘all do not work miracles’ (Wb. 12b20)
- c. *rolín in-bith nuile et caelum bolad inna idbairte-sin*  
 fills.PERF.3SG the-world.ACC all et caelum smell.NOM the.GEN offering.GEN-that  
 ‘the odor of that offering has filled the whole world et caelum’  
 (Wb. 22b13)

To conclude, the frequencies in Table 2 are clear evidence that nominative subjects precede accusative objects in Old Irish, confirming the neutrality of VSO word-order. We use these statistics in our comparison with compositional predicates that select for oblique subject-like arguments in Section 4.3.3 below.

### 4.3 Oblique subject-like arguments

The type of oblique subject constructions under investigation in Old Irish is exemplified by the datives in (9) and the accusatives in (10). These arguments can occur with two types of verbs with the meaning ‘to be’, namely the copula *is* and the substantive verb *at-tá*, of which the latter is used to denote location or to form progressive constructions. Constructions with oblique subject-like arguments with the substantive verb are, however, very common with infixed and suffixed pronouns. Thus Wackernagel’s Law applies and word-order may be non-neutral. Since our aim in this article is to compare the behavior of nominative subjects and oblique subject-like arguments in neutral word order, constructions with the substantive verb have been excluded.

- (9) a. *ni-torbe do an-imdibe adchi cách*  
 NEG.COP-profit.NOM to.him.DAT the-circumcision.NOM that.sees everyone.NOM  
 ‘He does not profit from the circumcision which everyone sees’  
 (Wb. 2a2)
- b. *Ce-torbe dúib-si didiu in-fogur sin*  
 what.COP-profit.NOM to.you.DAT.PL-EMPH then the-sound.NOM.SG this  
 ‘How then do you profit from this sound?’  
 (Wb. 12d5)
- c. *isgnáth do cobir cach lobir hifochidib*  
 COP.customary.NOM to.him.DAT help.NOM every weak.GEN.SG in.temptation.DAT.PL  
 ‘he is wont to help every feeble one in tribulations’  
 (Wb. 16a31)
- (10) a. *is-cíth linn etarscarad coirp et-anme*  
 COP-weary with.us.ACC separation.NOM body.GEN et-soul.GEN  
 ‘we find the separation of body and soul weary’  
 (Wb. 15c12)
- b. *ní mebul lemm precept soscéli*  
 NEG.COP shame.NOM with.me.ACC preaching.NOM gospel.GEN  
 ‘I am not ashamed to preach the Gospel’  
 (Wb. 1b10, 11)
- c. *is-lúud leu teistiu fuile*  
 COP-impulse.NOM with.them.ACC pouring.NOM blood.GEN.PL  
 ‘they have an impulse to pour out blood’  
 (Wb. 2b1)

Under a traditional Old Irish analysis of (9–10), the oblique subject-like argument is analyzed as an inherent part of the predicative noun or adjective, for instance, *lúud leu* in (10c), while the subject is taken to be the nominative argument following the subject predicative complement, *teistiu fuile* in (10c) (McCone 2005: 39, cf. also Mac Coisdealbha 1998: 10–46 for a discussion of word-order in standard copular sentences).

In our view, the “predicate” corresponds not only to the subject predicative complement, but also includes the copula; as such, both parts make up the “verb”.

That is, the verb is a **compositional** predicate of the type discussed in (1) above for Vedic Sanskrit, Old Albanian, Classical Armenian, Hittite, and Modern Icelandic. This analysis is supported by the fact that the copula can be deleted, which indicates that the contentful part of the “verb” is rather the predicative noun or adjective following the copula—a view that is also held by traditional grammarians. The prepositional phrase (*leu*), then, is an oblique subject-like argument, selected for by the compositional predicate (*is-lúud* ‘have impulse’). This oblique subject-like argument follows the predicate, occurring in its canonical position, immediately after the V in a VSO structure. We provide clear statistics on the relative position of this oblique argument in Section 4.3.3.

In sum, we analyze the examples in (9–10) as VSO structures. That is, the clause begins with a compositional predicate, consisting of the copula together with a predicative noun or an adjective, the V. The compositional predicate is then followed by the oblique subject-like argument, in our view the S, which itself is followed by an object in the nominative case, the O.

#### 4.3.1 Alternative syntactic analyses of the oblique subject-like argument

We now discuss and refute potential counterarguments to the VSO structure that our analysis assumes. This is part of our argumentation that the oblique subject-like argument is an argument of a compositional predicate and not an inherent part of the subject predicative complement.

Alternative analyses center on the syntactic status of the oblique subject-like argument itself, rather than on the makeup of the “predicate”. First, one could argue that the oblique subject-like argument is dependent on the noun rather than being selected by the compositional predicate. That is, the oblique subject-like argument could be an attribute of the subject predicative complement. Typically in the languages of the world, genitive attributes manifest a possessive relation, with some languages showing variation between genitive and dative attributes. Accusative attributes, however, are virtually non-existent, which makes a potential attribute analysis for the examples in (10) above exceedingly unlikely.

Nevertheless, if a possessive attribute analysis is entertained, the predicate in (9a–b) would be ‘his/your profit is’ and not just ‘profit is’. This could indeed be seen as a viable analysis of nominal predicates, as possession can be indicated in this way in Old Irish. It is, however, inadequate for adjectival predication, as in (11):

- (11) a. *is-irdurcu epirt lim són*  
 COP-clearer.NOM speech.DAT with.me.ACC it  
 ‘I deem it clearer than speech’ (Wb. 9b17)
- b. *is assu linn scarad friarcorp*  
 COP easier.CPAR with.us-ACC separation.NOM from.our.body.ACC  
 ‘we consider it easier to separate from our body’ (Wb. 15c22)
- c. *ba-ferr limm immurgu buith di inógi*  
 was.COP-better.CPAR with.me.ACC however being.NOM to.her.DAT in.virginity.DAT  
 ‘I had rather, however, that she were in virginity’ (Wb. 10b24)
- d. *robo-diliu linn dethiden díb-si*  
 was.COP-dearer.CPAR with.us.ACC care.NOM for.you.DAT-EMPH.2PL  
 ‘we deemed our care for you dearer’ (Wb. 14d1)
- e. *arnábad rómár leosom intsamil crist fochetóir*  
 that.not.be.COP.PST.SUBJ too.big.NOM with.them.ACC imitation.NOM Christ at.once  
 ‘so that they may not deem it too much to imitate Christ at once’  
 (Wb. 11c7)

Since any adjective can be used as a noun in Old Irish (Thurneysen 1946: 164), one might argue that all of the predicative adjectival examples in (9–10) are actually nouns. However, in examples (11a–d) above, the elements following the copula, *irdurcu* ‘clearer’, *assu* ‘easier’, *ferr* ‘better’, and *diliu* ‘dearer’, can only be adjectives, as they are in the comparative degree. In example (11e), *már* is also clearly an adjective, as it is modified by an intensifying adverb, *ró* ‘too’. This excludes a potential possessive attribute analysis for these clauses, a claim that is further corroborated by the fact the subject-like oblique is represented by a prepositional phrase with two different prepositions that select for two different cases.

Furthermore, attributes to predicative adjectives are even more restricted than to nouns, consisting of only objects of comparison or prepositional objects, as in English *angry with his wife*. However, objects of comparison in Old Irish are expressed with preposition-less datives, as is illustrated in (11a), *epirt* ‘speech’. The oblique subject-like arguments under discussion in our data set are instead prepositional phrases with, most frequently, *do* or *le*. As they differ structurally from objects of comparison, an analysis of the oblique subject-like arguments in our examples as objects of comparison is clearly excluded.

Turning to the latter type, *angry with me*, in languages which have such adjectival predicates these select for dative objects, like German *Er ist mir treu* ‘he is faithful to me’ and Icelandic *Hún er mér reið* ‘she is angry with me’. In the history of English, such objects of predicative adjectives were systematically replaced with prepositional objects (Gradon 1979: 61), hence the *with me* and *to me* with *angry* and *faithful*, respectively. The question is whether it might be possible to analyze our subject-like obliques as objects, but on such an approach they would count



as arguments of the predicate and not as part of a subject predicative complement. However, an object analysis would only be applicable in the examples above where the compositional predicate is adjectival and not in the examples where it is nominal. Moreover, in Section 4.3.3 below, we show that an object analysis of subject-like obliques is untenable.

To summarize the discussion so far, a “possessor” analysis of the oblique in oblique subject constructions is ruled out since i) a substantial number of constructions do not exhibit a possessive function at all, and ii) a significant number of these predicates are adjectival instead of nominal, which in turn means that a “possessor” analysis would be fundamentally misplaced. An attribute analysis for the adjectival construction is further ruled out since iii) objects of comparison only occur in the dative and not the accusative, and iv) an analysis in terms of a “verbal” object would only be applicable for the adjectival examples and would not apply to the nominal ones. As discussed in Section 4.3.3 below, word-order distribution also rules out an object analysis of the oblique.

Given the restrictions discussed in this section, one might perhaps find it feasible to argue that the subject-like oblique is a possessive attribute of the noun in cases where the predicate is nominal, but an object of the adjective in cases where the predicate is adjectival. This, however, would fundamentally defeat a potential attribute analysis, as one goal of such an analysis is to provide a unified account of the oblique. An attribute analysis in terms of possessive attribute for nominal predicates but objects for adjectival predicates presupposes a major difference in the attribute’s relation to its head, depending on the word class of the predicate. Hence an attribute analysis of the oblique turns out to be disjointed instead of unified. Our approach, instead, offers a unified analysis of the oblique, namely as the non-nominative subject of compositional predicates, with the following nominative being analyzed as a syntactic object.

The analysis we pursue here to account for the word-order Pred + Obl + Nom in the Old Irish data set is more in line with existing views of comparable inherited data in other Indo-European languages. On that analysis, the subject-like oblique is regarded as an argument of the compositional predicate, which consists of the copula (elided or overt) and a predicative noun or an adjective (for a list of types of predicate structure, cf. the overview in Sigurðsson 2004). For the examples in (9–11), the compositional predicates are thus ‘have profit’ (9a–b) and ‘be customary’ (9c); ‘be weary’ (10a), ‘be ashamed’ (10b), and ‘have impulse’ (10c); and ‘deem clearer’ (11a), ‘deem easier’ (11b), ‘deem better’ (11c), ‘deem dearer’ (11d), and ‘deem too much’ (11e). The oblique argument following the predicative noun/adjective is selected by a compositional predicate instead of being a part of the subject predicative complement. On this view, the compositional predicates in (9–11) above involve two-place predicates instead of standard one-place copular clauses. We

now turn to the question of whether these oblique subject-like arguments should be analyzed as objects or subjects.

### 4.3.2 An object analysis

Oblique subject-like arguments are often analyzed as objects, since they are not case-marked as canonical nominative subjects. Such an analysis, however, is often based on the faulty logic that if an argument is not in the nominative, it cannot be a subject, therefore it has to be an object. The term “object” itself is not clearly defined and it merely acts as a waste-paper basket for those arguments that are not considered subjects (cf. Barðdal 2000 for examples). This means that an object analysis of the subject-like argument is generally subject to a lower standard than a subject analysis of that same verbal argument.

In order to confirm, or potentially disconfirm, a subject analysis based on word-order, we therefore also compare the word-order distribution of these arguments to the distribution of canonical objects. If the same word-order distribution is found for these oblique arguments when analyzed as subjects, then there is empirical evidence that oblique subject-like arguments pattern like nominative subjects and should thus be analyzed as syntactic subjects. However, if the same word-order distribution is found for oblique arguments when analyzed as objects, then there is empirical evidence that oblique subject-like arguments pattern like accusative objects and should rather be analyzed as syntactic objects. Consider example (9b), which we repeat here as (12) for convenience:

- (12) *ce-torbe*                      ***dúib-si***                      *didiu in-fogur*                      *sin*  
 what.COP-profit.NOM to.you.DAT.PL-EMPH then    the-sound.NOM.SG this  
 ‘How then do you profit from this sound?’                      (Wb. 12d5)

The compositional predicate *cetorbe* ‘what profit’ has two arguments, the oblique subject-like argument *dúibsi* ‘you’ and the nominative object-like argument *infogur sin* ‘this sound’. Since these compositional predicates are two-place predicates rather than one-place predicates, both a subject and an object analysis are inherently possible for the oblique subject-like argument and therefore both a subject and an object analysis need to be addressed.

### 4.3.3 Baseline comparison

Having established above that the word-order in constructions with oblique subject-like arguments is Pred + Obl + Nom in the Old Irish data, and that the subject-like

oblique is an argument of the compositional predicate, we now consider how this word-order corresponds to neutral word-order in Old Irish in general. As shown in Section 4.2 above, the baseline word-order has been established as VSO: of 34 tokens examined, 31 (91%) show VSO order. The other three (9%) show VOS order. A preference for VSO word-order in Old Irish has thus been confirmed.

We now examine word-order patterns for compositional predicates that select for a subject-like oblique. Forty-one examples of compositional predicates selecting for oblique subject-like arguments were examined, and all show VSO word-order. Table 3 provides a comparison of the word order patterns for Nom-Acc predicates, on the one hand, and compositional predicates that select for subject-like oblique arguments, on the other, on the assumption that the oblique argument corresponds to the subject, and not the object.

**Table 3.** Comparison of word-order patterns across predicate types on the assumption that oblique subject-like arguments are subjects.

	VSO	VOS	Total
Oblique	39 (100%)	0	39
Nominative	31 (91%)	3 (9%)	34

The patterns are very clear. VSO word-order accounts for 91% of the instances where the subject is canonically marked in the nominative and the object canonically marked in the accusative. An inverted order, with the object preceding the subject, accounts for 9% of the cases. On the assumption that oblique subject-like arguments are subjects, VSO patterns account for 100% of the cases, which is very similar to the 91% for nominative subjects. In fact, applying Fisher's exact test reveals that the difference between the position of the nominative subject in Nom-Acc structures and the oblique argument is not statistically significant for Old Irish ( $p = 0.09621$ ).<sup>5</sup>

The lack of significance here can be interpreted in three ways: i) that the difference between nominative subjects and oblique subject-like arguments is due to chance, ii) that the two pattern very similarly, and iii) that the numbers are too small for significance to be calculated. The first two of these possible interpretations are not mutually exclusive. Only 9% of the examples with nominative subjects deviate from neutral word-order. On the assumption that this is a deviation, it is

<sup>5</sup> We use the Yates chi-squared test when possible but Fisher's exact test when more than 20% of the cells have fewer observations than five, as advised by statisticians for frequency data. The one-tailed and two-tailed  $p$  values turned out to be the same.

most likely due to chance that our examples of subject-like obliques do not show an OS word-order. The third option, that the numbers are too small to calculate significance, is of course a valid interpretation, but note with regard to Table 4 which assumes an inverted syntactic analysis that the exact same numbers are high enough to yield significance. Either way, our raw frequencies in Table 3 show that there is very little difference between the behavior of canonical nominative subjects and oblique subject-like arguments as regards word-order, hence the claim that they do in fact pattern alike follows naturally.

By contrast, Table 4 compares the word-order patterns for Nom-Acc predicates and predicates that select for subject-like oblique arguments, on the analysis that the oblique argument corresponds to the object and not the subject. It is thus based on the inverse assumption of Table 3.

**Table 4.** Comparison of word-order patterns across predicate types on the analysis that oblique subject-like arguments are objects.

	VSO	VOS	Total
Oblique	0	39 (100%)	39
Accusative	31 (91%)	3 (9%)	34

If the oblique argument is regarded as a syntactic *object*, the word-order patterns are completely opposite to what they are on a subject analysis. In fact, the difference in word-order distribution across accusative objects and oblique arguments is so gross that an object analysis is scarcely credible: while 91% of accusative objects of Nom-Acc predicates follow the subject, none of the subject-like obliques follows an alleged nominative subject in the constructions they occur in. The frequencies in Table 4 are well in the margins for applying the Yates chi-squared test and running that test shows that the difference between the position of accusative objects in Nom-Acc structures and the oblique subject-like argument turns out to be highly statistically significant ( $p < 0.0001$ ).

One major advantage of using the chi-squared test here, as opposed to Fisher's exact test, is that it can be used to calculate phi/Cramér's  $V$ , which determines the strength of the association between the variables. phi/Cramér's  $V$  can range from 0 to 1 and the higher it is, the stronger the association is between the variables, while the lower it is, the weaker the association is between the variables. In our case, phi/Cramér's  $V$  is 0.92 which is decidedly high, meaning that the two variables, nominative and oblique case, are clearly dependent on each other, and that the behavior of one of the variables can accurately predict the behavior of the other.

In fact, the two variables most likely measure the same concept, in this case the subject concept.

On the assumption that oblique subject-like arguments are subjects, VSO patterns account for 100% of the cases. However, on the analysis that the oblique argument is the *object*, the word-order patterns are completely opposite to what they are on a subject analysis. Similar work on Hittite (Johnson et al. *forthc.*) shows a strong preference for SOV word-order in that language for both nominative subjects and oblique subject-like arguments. This is important because the strictness of word order in both Old Irish and Hittite may allow us to draw conclusions about the status of non-canonically marked subject-like oblique arguments in these languages, based on their word-order distribution in each language, respectively. We consider the Old Irish VSO word-order for constructions with oblique subject-like arguments as good evidence for a subject analysis of these arguments, since nominative subjects and oblique subject-like arguments share the syntactic behavior of position relative to the verb and the object, *contra* accusative objects. The only viable analysis is thus to assume that the subject-like oblique is indeed the subject of the compositional predicate, which in turn entails that the nominative object-like argument is indeed an object (see Section 2 above on this analysis for Modern Icelandic).

## 5 Discussion

In the present article, we have not adopted any definition of subject, as our goal has first and foremost been to compare the behavior of oblique subject-like arguments with the behavior of canonical nominative subjects and canonical accusative objects in Old Irish. We have thus applied a bottom-up approach to the issue of subjecthood, in which we take the term “subject” to mean any and all arguments of the verb that behave as a canonical nominative in Nom-Acc argument structures, irrespective of their case marking (for a definition, see Eythórsson & Barðdal 2005; Barðdal, Eythórsson & Dewey 2014). We have compared canonical nominative subjects and non-canonical oblique subject-like arguments with regard to their position in the sentence structure, *contra* canonical accusative objects.

What is most striking about the data collected is that on the assumption that the subject-like oblique argument is indeed the subject of a compositional predicate, the word-order distribution is consistent across the two types of compositional predicates, i. e. those with accusative and dative subject-like obliques. As mentioned above, this is strong evidence that such oblique subject-like arguments—although assigned different cases—have the same syntactic function as canonical nomina-

tive subjects. This is further bolstered by the fact that the placement of canonical accusative objects never overlaps with the placement of oblique subject-like arguments in our data. These two complementary facts motivate a view of oblique subject-like arguments as syntactic subjects.

There is a slight difference in the exact proportions of word-order distribution, but this difference is not significant. However, on the traditional analysis that oblique subject-like arguments are objects, the difference between the two contexts does become significant. The similarities in word-order across nominative subjects and subject-like obliques show that nominative arguments and oblique subject-like arguments pattern alike with respect to word-order, which therefore motivates a view of oblique subject-like arguments as syntactic subjects.

We mentioned above in Section 1 that there is a consensus among syntacticians working on the modern languages that oblique subject-like arguments in Icelandic are behavioral subjects. This analysis is based on several behavioral tests, such as raising-to-subject, raising-to-object, reflexivization, conjunction reduction, and control, in addition to position in the clause. Since word-order frequencies are readily available for two-place predicates in Icelandic (see Barðdal & Eythórsson 2012: 377–378), it is appropriate to compare them with the frequencies established for Old Irish above.

The numbers in Table 5 are not based on Modern Icelandic alone, but are instead based on a sample of texts from different time periods in the history of Icelandic, stretching all the way back to the 12th century (IcePaHC). A comparison between frequencies for different centuries has revealed no significant differences between different time periods in Icelandic, therefore the data could be collapsed into only one category, namely Icelandic.

**Table 5.** Comparison of word-order patterns across predicate types in Icelandic on the assumption that subject-like oblique arguments are subjects.

	<b>SVO</b>	<b>OVS</b>	<b>Total</b>
Oblique	96 (94%)	6 (6%)	102 (100%)
Nominative	2327 (80%)	578 (20%)	2905 (100%)

Icelandic is an SVO language with the verb occurring in second position in neutral word-order. This is shown in the first column in Table 5. The second column, OVS, gives the frequency for topicalized objects, which also entails an inversion between the subject and the verb, resulting in the subject occurring in the position immediately following the verb.

The Yates chi-squared test reveals furthermore that the differences between oblique and nominative subjects are significant both on a subject ( $p < 0.0007$ ) and an object analysis ( $p < 0.0001$ ) of the oblique, presumably because of the difference in total numbers between nominative and oblique subjects, with the former exhibiting 2.905 instances, while the latter is only found with 102 instances. However, phi/Cramér's  $V$  for Table 5 ( $p < 0.0007$ ) is extremely low (0.004), which suggests that the association between the two variables, in this case nominative and oblique subjects, is close to nonexistent. In other words, even though a level of significance is obtained on a subject analysis of oblique subjects, the word-order distribution of the two types of subjects is extremely predictable. Oblique subjects certainly deviate a bit from nominative subjects, and even though the difference is significant, the effect of this difference is still very small.

A comparison of Old Irish with Icelandic confirms that Old Irish indeed has the same strict word-order as Icelandic, as the neutral VSO word-order is found 91% of the time for Nom-Acc structures in Old Irish (Table 2 p. 122), which is a little higher than for Icelandic, where it is 80% for corresponding structures. The higher percentages in Old Irish are most likely a consequence of the smaller sample size for Old Irish compared with Icelandic. Turning to the word-order found with oblique subjects, it is 100% in Old Irish and 94% in Old Icelandic, demonstrating that oblique subjects in Old Irish pattern in the same way as oblique subjects in Old Icelandic.

Thus a comparison between Old Irish on the one hand and Icelandic, a language which has uncontroversial oblique subjects, on the other, shows that the word-order test that we have developed here for Old Irish appears to be no less conclusive for that language than it is for a modern language in which the existence of oblique subjects has been shown beyond doubt.

## 6 Summary and conclusion

Non-nominative, or oblique, subjects are found in several modern Indo-European languages, like Icelandic, Faroese, Russian, Hindi, and Urdu. For yet some other modern Indo-European languages, opinions are divided on whether a subject analysis is called for or not. For the early Indo-European languages, work on Germanic has shown beyond doubt that only a subject analysis can adequately account for the relevant data and the behavior of oblique subject-like arguments in Gothic, Old Icelandic, Old Swedish, Old English, Old Saxon, and Old High German (cf. Barðdal & Eythórsson 2012). This raises the question of how to analyze oblique subject-like arguments in the early periods of languages of the remaining

nine branches of Indo-European, i. e. Italic, Greek, Indo-Iranian, Tocharian, Balto-Slavic, Armenian, Albanian, Celtic, and Anatolian. Current work on Ancient Greek shows that a subject analysis is warranted in that language (Danesi 2015), and recent work on Slavic shows that some oblique subject constructions show more behavioral properties of subjects than others (Grillborzer 2014); the same has been argued for Sanskrit by Hock (1990).

The concept of grammatical relations, in particular the concept of subject, is multifaceted, and several different tests have been suggested to distinguish between subjects and objects in the languages of the world (cf. Keenan 1976, *inter alia*). Classically, the subject tests have been divided into coding and behavioral properties, with case marking, agreement, and position qualifying as coding and various raising and elliptical constructions, for example, qualifying as behavioral properties. However, the validity of each of these tests has to be established for each language, as languages do not necessarily behave the same way with regard to whether a particular behavior targets subjects, objects, or both.

As a starting-point in approaching the grammatical relation of oblique subject-like arguments in the early Indo-European languages, we have here focused on word-order in one particular early Indo-European language, Old Irish, which has been argued to show stricter word-order than the remaining languages (with the exception of Hittite). Old Irish is generally taken to be a VSO language, thus presenting the perfect opportunity to apply one of the well-known subject tests, i. e. the word-order test, to attested oblique subject-like arguments, provided that word-order distinguishes between subjects and objects in that language.

Our Old Irish examples of oblique subject-like arguments all occur with compositional predicates consisting of a copula combining with a predicative adjective, adverb, or noun, while the subject-like obliques in question are in the accusative or dative and are always preceded by a preposition. On the traditional Old Irish analysis, oblique subject-like arguments selected for by compositional predicates have been regarded as being a part of the subject predicative complement, with the predicative noun being analyzed as a subject immediately following the copula. This is analogous to the analysis of ordinary standard copular sentences, i. e. subject predicative complements in Old Irish in which the subject immediately follows the copular verb. We have shown that the subject-like oblique can neither be analyzed as a possessive attribute to the predicative noun nor as a prepositional object of the predicative adjective. This is due to i) lack of possessive semantics, ii) the infelicitousness of possessive attributes with predicative adjectives, iii) infelicitousness of “verbal” objects occurring as attributes to nouns, and iv) the word-order distribution of subject-like obliques, patterning with canonical nominative subjects and not with canonical accusative objects. Instead, we have shown that the subject-like oblique behaves syntactically as an argument of a compositional predicate and



that it cannot be taken to form a constituent with the predicative complement of a subject in a copular clause.

As a first step of applying the word-order test in Old Irish we have established a baseline for canonical nominative subjects and canonical accusative objects. By selecting a set of transitive verbs in Old Irish, and counting occurrences of the different word-orders, we have set a standard for comparing oblique subject-like arguments with both canonical nominative subjects and canonical accusative objects. It turns out that nominative subjects occupy their canonical second position following the finite verb in Old Irish in an overwhelming majority of cases. This is how a baseline for word-order can be established. A comparison with oblique subject-like arguments reveals that they share the word-order distribution of canonical nominative subjects and, as a corollary, deviate substantially from the word-order distribution of canonical accusative objects. In this respect, oblique subject-like arguments in Old Irish behave syntactically as canonical nominative subjects do. A further comparison with Icelandic, a language well known for exhibiting oblique subjects, additionally supports our subject analysis for Old Irish. The frequencies of canonical nominative subjects, canonical accusative objects, and oblique subject-like arguments clearly illustrate that oblique subject-like arguments pattern with unambiguous subjects and deviate from unambiguous objects in that language, in exactly the same way as in Old Irish. Further research will show whether the word-order test can be applied on additional early Indo-European languages which show more freedom in word-order, due to how information is structured and communicated in these languages.

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## Appendix: examples of oblique subject-like arguments found in the Würzburg Glosses

- (1) *condib dídnað **domsa** foirbthetu hirisse dúibsi*  
'so that I may be comforted by the perfection of your faith' (Wb. 1b1)
- (2) *ní mebul **lemm** precept soscéli*  
'I am not ashamed to preach the Gospel' (Wb. 1b10, 11)
- (3) *islúud **leu** teistiu fuile ut gentes*  
'they have an impulse to pour out blood' (Wb. 2b1)
- (4) *isdedbir dúib cidmebul **lib** ataidmet*  
'it is reasonable for you that you should be ashamed to remember them' (Wb. 3b30)
- (5) *incuntubart **lib** inso*  
'do ye doubt this?' (Wb. 3c3)
- (6) *aní asmaith **ladia** doguídi ished tinfetsom dianóibaib*  
'that which God would have (us) pray for is that with which he inspires his saints' (Wb. 4b4)
- (7) *isingir **lem** cenchretim dúib*  
'I grieve that you have no faith' (Wb. 4b28)
- (8) *lour **leu** gníma recto diaffirianugud*  
'they deem the works of the law sufficient to justify them' (Wb. 4d12)
- (9) *is hecen sainecoscc **leosom** for accrannaib*  
'they deem it necessary (to have) a special appearance on the sandals' (Wb. 5a5)
- (10) *combat æt **leu** buid domsa iniriss*  
'so that they may have emulation (for) my being in (the) faith' (Wb. 5b20)
- (11) *bacoscc carat **limm** dit agentlidi*  
'if I were to give you a friend's advice, oh gentile ...' (Wb. 5b32)
- (12) *isdiamuin **leiss** cachthúare*  
'he deems every food pure' (Wb. 6b8)
- (13) *iscían ós accobor **lemm** farríchtu*  
'I have long desired to visit you' (Wb. 7a3)
- (14) *is amre **lim** rad ñdé lib*  
'I marvel at the grace of god that you have' (Wb. 7d3)
- (15) *nitorbe **lasuidiu** precept doib manidénatar ferte occa*  
'they do not deem preaching to them profitable unless miracles be wrought thereat' (Wb. 8a11)
- (16) *isbeic **lim** inbrígsin*  
'little do I care' (Wb. 8d21)
- (17) *isbeicc **limsa** abríg*  
'little do I care' (Wb. 8d21)
- (18) *beim foris **lemm** inso forsaní asrubart riam*  
'this seems to me a foundation of what he has said before' (Wb. 9c1)

- (19) *maith les agnási*  
‘he enjoys her companionship’ (Wb. 10a2)
- (20) *is frithorcon leu athabairt forru*  
‘they consider it an offense to force them to it’ (Wb. 10c5)
- (21) *cosmilius aile lessom inso ba ndílmáin dossom airbert biuth dithorud aprecepte*  
‘this is another simile which he has,  
that he was free to eat the fruits of his preaching’ (Wb. 10d14)
- (22) *cosmilius aile lessom inso ba ndílmáin dossom airbert biuth dithorud aprecepte*  
‘this is another simile which he has,  
that he was free to eat the fruits of his preaching’ (Wb. 10d14)
- (23) *arnábad rómár leosom intsamil crist fochetóir*  
‘so that they may not deem it too much to imitate Christ at once’ (Wb. 11c7)
- (24) *cosmulius aile lessom inso .i. cosmilius tuib*  
‘he considers this another similitude, namely a similitude of a trumpet’ (Wb. 12c46)
- (25) *cetorbe dúibsi didiu infogur sin mani fessid inni bess fonfogursin*  
‘how then do ye profit from this sound  
unless ye know the sense which is under that sound?’ (Wb. 12d5)
- (26) *insians ondid accobor limsa ícc cáich*  
‘the understanding from which I desire to save everyone’ (Wb. 12d23)
- (27) *mad aill duib cid accaldam neich diib darigente*  
‘if you desire even to talk to with any of them, you could do it’ (Wb. 13b3)
- (28) *isaihiss doibsom cid anísiu .i. cenprecept dondaís anfiss*  
‘they consider even this a disgrace, that is, not to preach to the ignorant folk’ (Wb. 13b11)
- (29) *tecmallid dia domnich beos arnaptrom lib atecmallad*  
‘continue to collect on Sunday, so that you may not find their collection heavy’ (Wb. 14a1)
- (30) *condib cuimse less ameit*  
‘so that he may consider its amount appropriate’ (Wb. 14a3)
- (31) *roposcíth linn uiuere*  
‘we were weary of life’ (Wb. 14b26)
- (32) *luige limsa inso*  
‘I have here an oath’ (Wb. 14c39)
- (33) *cia rodbatar tirbithi aili fornn robodiliu linn dethiden díbsi*  
‘although we have had other troubles, we deem our care for you dearer’ (Wb. 14d13)
- (34) *iscíth linn etarscarad coirp etanme*  
‘weary seems to us the separation of body and soul’ (Wb. 15c12)
- (35) *istrom linn etarscarad coirp etanme*  
‘heavy seems to us the separation of body and soul’ (Wb. 15c15)
- (36) *is assu linn scarad friarcorp massudiing anrogadammar*  
‘we consider it easier to separate from our body  
if what we have prayed for is very difficult’ (Wb. 15c22)

- (37) *ar ba ainm leosom peccatum dundidbairt adoparthe dar cenn peccati*  
‘for they had the name *peccatum* for the offering that was offered because of *peccati*’  
(Wb. 15d20)
- (38) *isduthract linn doctrina precept dúib*  
‘we desire to preach *doctrina* to you’  
(Wb. 16a10)
- (39) *isgnáth do cobir cach lobir hifochidib*  
‘he is wont to help every feeble one in tribulations’  
(Wb. 16a31)

## Abbreviations

- IcePaHC Joel C. Wallenberg, Anton K. Ingason, Einar F. Sigurðsson & Eiríkur Rögnvaldsson (2011). *Icelandic Parsed Historical Corpus*. Version 0.9. URL: [http://www.linguist.is/icelandic\\_treebank](http://www.linguist.is/icelandic_treebank).
- Wb. “The Würzburg glosses on the Pauline epistles” (1901–1903). In: *Thesaurus Palaeohibernicus. A Collection of Old Irish Glosses and Scholia Prose and Verse*. Ed. by Whitley Stokes & John Strachan. Vol. 1. Dublin: Dublin Institute for Advanced Studies, 499–712.

## Bibliography

- Allen, Cynthia L. (1995). *Case Marking and Reanalysis. Grammatical Relations from Old to Modern English*. Oxford: Oxford University Press.
- Andrews, Avery (1976). “The VP complement analysis in Modern Icelandic”. In: *North Eastern Linguistic Society* 6, 1–21.
- Barðdal, Jóhanna (2000). “The subject is nominative! On obsolete axioms and their deep-rootedness”. In: *17th Scandinavian Conference of Linguistics*. Ed. by Carl-Erik Lindberg & Steffen Nordahl. Odense: Institute of Language and Communication, 93–117.
- Barðdal, Jóhanna (2001). “The perplexity of Dat-Nom verbs in Icelandic”. In: *Nordic Journal of Linguistics* 24, 47–70.
- Barðdal, Jóhanna (2006). “Construction-specific properties of syntactic subjects in Icelandic and German”. In: *Cognitive Linguistics* 17.1, 39–106.
- Barðdal, Jóhanna (2013). “Bottom-up and top-down approaches to subjecthood”. A plenary talk presented at The SKY Symposium *Subject: Cognitive, Typological, and Functional Approaches*, Helsinki, 13. Sept. 2013.
- Barðdal, Jóhanna (2014). “Syntax and syntactic reconstruction”. In: *The Routledge Handbook of Historical Linguistics*. Ed. by Claire Bowern & Bethwyn Evans. London: Routledge, 343–373.
- Barðdal, Jóhanna, Valgerður Bjarnadóttir, Serena Danesi, Tonya K. Dewey, Thórhallur Eythórsson, Chiara Fedriani & Thomas Smitherman (2013). “The story of ‘woe’”. In: *Journal of Indo-European Studies* 41.3–4, 321–377.
- Barðdal, Jóhanna & Thórhallur Eythórsson (2003). “The change that never happened. The story of oblique subjects”. In: *Journal of Linguistics* 39.3, 439–472.

- Barðdal, Jóhanna & Thórhallur Eythórsson (2012). "Hungering and lusting for women and fleshly delicacies. Reconstructing grammatical relations for Proto-Germanic". In: *Transactions of the Philological Society* 110.3, 363–393.
- Barðdal, Jóhanna, Thórhallur Eythórsson & Tony K. Dewey (2014). "Alternating predicates in Icelandic and German. A sign-based Construction Grammar account". In: *Working Papers in Scandinavian Syntax* 93, 50–101.
- Barðdal, Jóhanna, Thomas Smitherman, Valgerður Bjarnadóttir, Serena Danesi, Gard B. Jensen & Barbara McGillivray (2012). "Reconstructing constructional semantics. The dative subject construction in Old Norse-Icelandic, Latin, Ancient Greek, Old Russian and Old Lithuanian". In: *Studies in Language* 36.3, 511–547.
- Barnes, Michael (1986). "Subject, nominative and oblique case in Faroese". In: *Scripta Islandica* 38, 3–35.
- Benedetti, Marina (2013). "Non-canonical subjects in clauses with noun predicates". In: *Argument Structure in Flux. The Naples-Capri Papers*. Ed. by Elly van Gelderen, Michaela Cennamo & Jóhanna Barðdal. Benjamins, 15–31.
- Bickel, Balthasar (2004). "The syntax of experiencers in the Himalayas". In: *Non-Nominative Subjects*. Ed. by Peri Bhaskararao & Karumuri V. Subbarao. Vol. 1. Amsterdam: Benjamins, 77–111.
- Bickel, Balthasar (2011). "Grammatical relations typology". In: *The Oxford Handbook of Linguistic Typology*. Ed. by Jae Jung Song. Oxford: Oxford University Press, 399–444.
- Bobaljik, Jonathan D. & Diana Jonas (1996). "Subject positions and the role of TP". In: *Linguistic Inquiry* 27, 195–236.
- Brustad, Kristen E. (2000). *The Syntax of Spoken Arabic. A Comparative Study of Moroccan, Egyptian, Syrian, and Kuwaiti Dialects*. Washington D. C.: Georgetown University Press.
- Conti, Luz (2009). "Weiteres zum Genitiv als Semisubjekt im Altgriechischen. Analyse des Kasus bei impersonalen Konstruktionen". In: *Historische Sprachforschung* 122, 182–207.
- Costa, João (2000). "Word order and discourse configurability in European Portuguese". In: *Portuguese Syntax. New Comparative Studies*. Ed. by João Costa. Oxford: Oxford University Press, 94–115.
- Croft, William (2001). *Radical Construction Grammar. Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press, 151–173.
- Culicover, Peter W. & Ray Jackendoff (2005). *Simpler Syntax*. Oxford: Oxford University Press.
- Dahl, Eystein & Chiara Fedriani (2012). "The argument structure of experience. Experiential constructions in Early Vedic, Homeric Greek and Early Latin". In: *Transactions of the Philological Society* 110.3, 342–362.
- Danesi, Serena (2014). "Accusative subjects in Avestan. 'Errors' or noncanonically marked arguments". In: *Indo-Iranian Journal* 57.3, 223–260.
- Danesi, Serena (2015). "Oblique subjects in Ancient Greek". A paper presented in Kviknes, Norway, in June 2015.
- Dryer, Matthew S. (1997). "Are grammatical relations universal?" In: *Essays on Language Function and Language Type Dedicated to T. Givón*. Ed. by Joan Bybee, John Haiman & Sandra A. Thompson. Amsterdam: Benjamins, 117–143.
- Eythórsson, Thórhallur & Jóhanna Barðdal (2005). "Oblique subjects. A common Germanic inheritance". In: *Language* 81.4, 824–881.
- Faarlund, Jan T. (2001). "The notion of oblique subject and its status in the history of Icelandic". In: *Grammatical Relations in Change*. Ed. by Jan T. Faarlund. Amsterdam: Benjamins, 99–135.
- Falk, Cecilia (1995). "Lexikalt kasus i svenska". In: *Arkiv för nordisk filologi* 110, 141–178.

- Falk, Cecilia (1997). *Fornsvenska upplevarverb*. Lund: Lund University Press.
- Fanselow, Gisbert (2002). “Quirky subjects and other specifiers”. In: *More than Words*. A Festschrift for Dieter Wunderlich. Ed. by Ingrid Kaufmann & Barbara Stiebels. Berlin: Akademie Verlag, 227–250.
- Fedriani, Chiara (2014). *Experiential Constructions in Latin*. Leiden: Brill.
- Gradon, Pamela (1979). *Dan Michel's Ayenbite of Inwyt: or Remorse of Conscience*. Vol. 2. Oxford: Oxford University Press.
- Grillborzer, Christine (2014). *Sintaksis konstrukcij s pervym datel'nym aktantom – Sinchronnyj i diachronnyj analiz*. PhD thesis. Regensburg: Regensburg University.
- Hermon, Gabriella (1985). *Syntactic Modularity*. Dordrecht: Foris.
- Hock, Hans H. (1990). “Oblique subjects in Sanskrit?” In: *Experiencer Subjects in South Asian Languages*. Ed. by Manindra Verma & Tara Mohanan. Stanford: CSLI Publication, 119–139.
- Holvoet, Axel (2013). “Obliqueness, quasi-subjects and transitivity in Baltic and Slavonic”. In: *The Diachronic Typology of Non-Canonical Subjects*. Ed. by Ilja A. Seržant & Leonid Kulikov. Amsterdam: Benjamins, 257–282.
- Ingason, Anton K., Einar F. Sigurðsson & Joel C. Wallenberg (2011). “Distinguishing change and stability. A quantitative study of Icelandic oblique subjects”. A talk given at DIGS 13, University of Pennsylvania, 2–5 June 2011.
- Johnson, Cynthia. A., Michael Frotscher, Esther Le Mair, Thórhallur Eythórsson & Jóhanna Barðdal (forthc.). “Position as a behavioral property of subjects. The case of Hittite”.
- Jónsson, Jóhannes G. (1996). *Clausal Architecture and Case in Icelandic*. PhD thesis. Amherst: University of Massachusetts.
- Kavanagh, Séamus & Dagmar S. Wodtke (2001). *A Lexicon of the Old Irish Glosses in the Würzburg Manuscript of the Epistles of St. Paul*. Wien: Akademie der Wissenschaften.
- Keenan, Edward L. (1976). “Towards a universal definition of subject”. In: *Subject and Topic*. Ed. by Charles N. Li. New York: Academic Press, 303–333.
- Kristoffersen, Kristian E. 1996 (1996). *Infinitival Phrases in Old Norse. Aspects of their Syntax and Semantics*. PhD thesis. Oslo: University of Oslo.
- Landau, Idan (2009). *The Locative Syntax of Experiencers*. Cambridge, MA: MIT Press.
- Lash, Elliott (2014). “Subject positions in Old and Middle Irish”. In: *Lingua* 148, 278–308.
- Luraghi, Silvia (2010). “Experiencer predicates in Hittite”. In: *Ex Anatolia Lux*. Anatolian and Indo-European studies in honor of H. Craig Melchert on the occasion of his sixty-fifth birthday. Ed. by Ronald Kim, Norbert Oettinger, Elisabeth Rieken & Michael Weiss. Ann Arbor & New York: Beech Stave, 249–264.
- Mac Coisdealbha, Pádraig (1998). *The Syntax of the Sentence in Old Irish. Selected Studies from a Descriptive, Historical and Comparative Point of View*. Ed. by Graham R. Isaac. New edition with additional notes and an extended bibliography. Tübingen: Niemeyer.
- Mac Giolla Easpaig, Dónall (1980). “Aspects of variant word order in Early Irish”. In: *Ériu* 31, 28–38.
- Macisa, Colin P. (1976). *Defining a Linguistic Area. South Asia*. Chicago: University of Chicago Press.
- Matasovič, Ranko (2013). “Latin *paenitet me, miseret me, pudet me* and active clause alignment in PIE”. In: *Indogermanische Forschungen* 118, 93–110.
- McCone, Kim R. (1997). *The Early Irish Verb*. 2nd ed. Maynooth: An Sagart.
- McCone, Kim R. (2005). *A First Old Irish Grammar and Reader*. Maynooth: Department of Old and Middle Irish.

- McCone, Kim R. (2006). *The Origins and Development of the Insular Celtic Verbal Complex*. Maynooth: Department of Old Irish.
- Moore, John & David M. Perlmutter (2000). "What does it take to be a dative subject?" In: *Natural Language & Linguistic Theory* 18, 373–416.
- Ottósson, Kjartan G. (1989). "VP-specifier subjects and the CP/IP distinction in Icelandic and Mainland Scandinavian". In: *Working Papers in Scandinavian Syntax* 44, 89–100.
- Rákosi, György (2006). *Dative Experiencer Predicates in Hungarian*. Utrecht: LOT.
- Rivero, Maria-Luisa (2004). "Quirky subjects, person restrictions, and the person-case-constraint". In: *Linguistic Inquiry* 35, 494–502.
- Rögnavaldsson, Eiríkur (1991). "Quirky subjects in Old Icelandic". In: *Papers from the Twelfth Scandinavian Conference of Linguistics*. Ed. by Halldór Á. Sigursson. Reykjavík: Institute of Linguistics, University of Iceland, 369–387.
- Rögnavaldsson, Eiríkur (1995). "Old Icelandic: A non-configurational language?" In: *NOWELE* 26, 3–29.
- Rögnavaldsson, Eiríkur (1996). "Frumlag og fall að fornu". In: *Íslenskt mál og almenn málfræði* 18, 37–69.
- Russell, Paul (1995). *An Introduction to the Celtic Languages*. London & New York: Longman.
- Shibatani, Masayoshi (1999). "Dative subject constructions twenty-two years later". In: *Studies in the Linguistic Sciences* 29.2, 45–76.
- Sigurðsson, Halldór Á. (1991). "Beygingarsamræmi". In: *Íslenskt mál og almenn málfræði* 12–13, 31–77.
- Sigurðsson, Halldór Á. (1998). *Verbal Syntax and Case in Icelandic*. PhD thesis. Lund: Lund University.
- Sigurðsson, Halldór Á. (2002). "Agree and agreement. Evidence from Germanic". In: *Working Papers in Scandinavian Syntax* 70, 101–156.
- Sigurðsson, Halldór Á. (2004). "Icelandic non-nominative subjects. Facts and implications". In: *Non-Nominative Subjects*. Ed. by Peri Bhaskararao & Karumuri V. Subbarao. Vol. 2. Amsterdam: Benjamins, 137–159.
- Sreznevskij, Izmail I. (1893–1912). *Materialy dlja slovarja drevnerusskago jazyka po pis'mennym pamjatnikam*. Sanktpeterburg: Imperatorskaja Akademija nauk.
- Steever, Sanford B., ed. (1998). *The Dravidian languages*. London: Routledge, 1–39.
- Stüber, Karin (2009). *Der altirische do-Infinitiv – eine verkannte Kategorie*. Bremen: Hempen.
- Thráinsson, Höskuldur (1979). *On Complementation in Icelandic*. New York: Garland.
- Thurneysen, Rudolf (1946). *A Grammar of Old Irish*. Trans. by Daniel. A. Binchy & Osborn Bergin. Revised and enlarged edition with supplement. Dublin: Dublin Institute for Advanced Studies.
- Van Valin, Robert D. (2005). *Exploring the Syntax-Semantics Interface*. Cambridge: Cambridge University Press.
- Verbeke, Saartje, Leonid Kulikov & Klaas Willems (2015). "Oblique case-marking in Indo-Aryan experiencer constructions. Historical roots and synchronic variation". In: *Lingua* 163, 23–39.
- Verma, Manindra K. & K. P. Mohanan, eds. (1990). *Experiencer Subjects in South Asian Languages*. Stanford: CSLI Publications.
- Viti, Carlotta (2016). "Areal distribution of argument marking of Indo-European experience predicates". In: *Journal of Indo-European Studies* 44.1, 1–84.
- Willgohs, Beatriz & Patrick Farrell Farrell (forthc.). "A macrorole approach to dative subjects". In: *Non-Canonically Case-Marked Subjects within and across Languages and Language*

- Families. The Reykjavík-Eyjafjallajökull Papers*. Ed. by Jóhanna Barðdal, Na'ama Pat-El & Stephen Mark Carey.
- Yoon, James H. (2004). "Non-nominative (major) subjects and case stacking in Korean". In: *Non-Nominative Subjects*. Ed. by Peri Bhaskararao & Karumuri V. Subbarao. Vol. 2. Amsterdam: Benjamins, 265–314.
- Zaenen, Annie, Joan Maling & Höskuldur Thráinsson (1985). "Case and grammatical functions. The Icelandic passive". In: *Natural Language & Linguistic Theory* 3, 441–483.



