

# The genesis of the animacy hierarchy in the Old Irish *notae augentes*

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## General Background

The *notae augentes* of Old Irish (henceforth *nota* / *notae*) are pronominal enclitics with the following forms:

1sg - <i>sa</i> / - <i>se</i> (once - <i>sea</i> )	1pl - <i>nai</i> / - <i>ni</i> (once - <i>sni</i> )
2sg - <i>so</i> , - <i>su</i> / - <i>siu</i>	2pl - <i>si</i>
3sg m / n - <i>som</i> , - <i>sum</i> / - <i>seom</i> , - <i>sium</i>	3pl - <i>som</i> , - <i>sum</i>
3sg f - <i>si</i>	

Their function is not entirely clear. Traditionally (as in Zeuss 1871, 324; Pedersen 1913, 137; Thurneysen 1946, 252-3), the *notae* have been taken to impart some sort of emphasis to the pronouns they are found with. This idea has been disputed by Greene 1973, 122ff., whose idea is further developed in Griffith 2008b. See below for a brief discussion of the function of the *notae*.

The distribution of the *notae* has been for the most part been fairly well-described. They may appear in the following contexts (Thurneysen 1946, 252-3):

- after a noun, agreeing with a preceding possessive pronoun
- after a personal pronoun or conjugated preposition
- after a copula + noun / adjective sequence, serving as the subject
- after a verb, agreeing with either the subject or the infixed object

While the above accurately describe where a *nota* may appear, an important distributional restriction has been recognized recently (Griffith 2008a). The basic observation is easily described: when attached to a verb with an infixed or suffixed pronoun<sup>1</sup>, a *nota augens* must agree with whichever ARGUMENT (i.e. subject or object) is highest on the following scale:

- (1) 1st person > 2nd person > 3rd person human > 3rd person non-human

An obvious question that comes to mind upon seeing this restriction is: how could this exceptionless hierarchy have arisen? There are two main ways of approaching the problem. The first is from a typological, i.e. cross-linguistic, perspective and the second is language-internally / historically. We will examine both approaches here, and although it will be seen that both have crucial details to offer, it appears that the language-internal / historical approach is somewhat more enlightening as to the prehistory of this hierarchy.

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<sup>1</sup> Henceforth, the term “infixd pronoun” will be used to stand for the more cumbersome, though more accurate, “infixd or suffixed pronoun”.

### Typological Considerations

In the decades since Silverstein 1976, in which he noted a cross-linguistically valid pronominal hierarchy much like that above in (1), a vast literature on pronominal hierarchies has appeared. A general overview can be found in Croft 1990, 95-123, esp. 111-17; more specialized are Comrie 1989, 124-37 and Dixon 1994, 83-97. An important, and still open, question is whether the hierarchy is truly universal. Kiparsky 2008, XXX argues that it is, and because it is, it belongs to Universal Grammar. The particular hierarchy he is arguing for is the following:

- (2) 1 PRO > 2 PRO > 3 PRO > proper noun / kin term > human > animate > inanimate

It should be noted, however, that there are numerous languages that in some way do not follow the hierarchy (Siewierska 2006, 149-54). For instance, the Algonquian family has a number of members that rank the 2nd person above the 1st person. The details vary from language to language in the family (see MacCaulay 2005 for a good overview), but these data show that there are at least some exceptions to the hierarchy as given above in (1) and (2).<sup>2</sup>

Regardless of whether the hierarchy is absolutely exceptionless or not, it is clear that there is an animacy hierarchy, descriptively accurate for some data, in a large number of languages. If this hierarchy is indeed universal, it could be argued that the facts of the distribution of the *notae augentes* in Old Irish as in (1) simply fall out from that fact. That is, in verbs with infixed pronominal objects, there was one post-verbal slot for an enclitic but two possible arguments for it to agree with. The clitic agreement was then simply regulated by the animacy hierarchy, with the top-ranked clitic being allowed.

This argument is not convincing. Though the distribution of the *notae augentes* conforms to the animacy hierarchy, that fact does not mean that the hierarchy is what caused the conformity in the first place. The question is thus whether we can rule out other factors that may have caused the distributional restrictions. If we can rule out other factors, then it is probably reasonable (and possibly necessary) to explain the distribution as a result of universal tendencies. Following this logic, it is imperative to seek other possible factors that may have caused the *notae augentes* to have the observed distribution.

### Inner-Irish evidence for the origin of the animacy hierarchy in the *notae augentes*

#### *Basic assumptions*

Before examining inner-Irish evidence for the rise of the animacy hierarchy, it is necessary to lay out a few assumptions that serve to guide the investigation. First, it is assumed here that the *notae augentes* functioning as clitics developed relatively recently in Old Irish, most likely post-apocope. McCone 2006, 216-7 offers a largely similar chronology. The logic behind the assumption is that while the *notae* were probably in place

<sup>2</sup> Bruening 2005 has argued that the Algonquian data are best handled in the syntax and without reference to a participant hierarchy. He further claims that it is unnecessary to posit a participant hierarchy at all for syntax. If he is correct, it will have important consequences for the arguments here and more generally. Evaluating his claims, which are made within a particular syntactic framework, is not possible here.

earlier, they could not have been enclitic at the time of apocope, since their presence does not affect the basic verbal form. This fact distinguishes them, for instance, from suffixed pronouns: *benaid* and *benaid-som* “he strikes” (not <sup>x</sup>*bentsom* or <sup>x</sup>*bentom* < *benaid* + *som*) vs. *bentai* “he strikes it” (not <sup>x</sup>*benaid-i*).

A further assumption here is that subject agreement with *notae augentes* was possible before object agreement was. Support for this assumption is rather complex, and a full discussion is not possible here, but the outlines of the argument are as follows. It appears that the *notae*, rather than being simply emphasizing particles (see above for references), are real pronouns (see Griffith 2008b, 2009). The fact that they cannot co-occur with a full noun phrase or with a referring relative (see below and Griffith 2008a, 67) supports this conclusion. If they are real pronouns, however, there is a problem when they agree with an infixed pronoun, since it would seem that two pronouns are simultaneously present. As it turns out, the infixed pronouns, despite most general assumptions, are not real pronouns, but represents rather object agreement in the same way that the verbal endings represent subject agreement (Eska im Druck). The cases outlined in Lucht 1994 of proleptic infixed pronouns, i.e. ones occurring simultaneously with full noun phrases, provide positive support for viewing the infixed pronouns being agreement.

The question is, when did the infixed pronouns become simply agreement markers, since they were surely referential at an earlier period. The most logical explanation is that once the object pronouns became totally integrated into the verbal complex, they could be interpreted as agreement and thus allow a *nota* (a full pronoun) to appear with them. This complete integration of the infixed pronouns was achieved with the apocope. It therefore appears that infixed pronouns lost their referential status rather late, and only afterwards was it possible for the *notae augentes* to agree with infixed objects. For subjects, the verbal endings represented agreement to the earliest reconstructable period, meaning that the agreement of *notae* with subjects was available very early. While the argument here has not proved that the agreement of *notae* with subjects preceded agreement with objects, it has shown that the assumption is highly plausible.

### *Ranking the persons in Old Irish*

Having stated the assumptions underlying the following argument, we can turn to the argument itself: a number of distributional restrictions offer a plausible explanation of why the 3rd person falls at the bottom of the hierarchy. Once the position of the 3rd person is fixed, all that remains is to determine the order of the 1st and 2nd persons relative to one another. This determination is more difficult, but a few indications hint at why Old Irish has privileged the 1st person above the 2nd.

#### The 3rd person at the bottom of the hierarchy, Part I: 3rd person verbs

The argument for why the 3rd person is at the bottom of the hierarchy has two parts: when the verb is 3rd person and when the verb is not 3rd person. We will start with the case where the verb is 3rd person. To make sense of the data, we must observe two key restrictions on the appearance of the *notae augentes* with verbs (Griffith 2008a, 67). First, they never co-occur with an overt subject, i.e. a sentence of the type <sup>x</sup>*ad·cí-som in fer in mnaí* “the man sees the woman” is impossible. Likewise impossible is the appearance of a *nota* on a verb with a subject relative antecedent: <sup>x</sup>*is in fer ad·chí-som in mnaí* “it is the man

who sees the woman”. In both cases, a *nota* can appear on the verb if it agrees with an infixed object (e.g. *at ·cí·som in fer* “the man sees him”), but not if it agrees with the subject.

These two restrictions only affect the third person. The reasons for this stem from the peculiar syntax of Old Irish relative verbs and stressed personal pronouns. Overt stressed subject pronouns are never construed with a verb in Old Irish (Thurneysen 1946, 254): <sup>x</sup>*at ·biur mé* “I say it”. The effect of this restriction is that 1st and 2nd person *notae augentes* can never be blocked from appearing on a verb by a stressed pronominal form, while 3rd person *notae* can be blocked by an overt subject.

The case is similar with relative verbs. When they have an antecedent (i.e. are not relative after certain conjunctions like *amal* “like” and *a<sup>N</sup>* “when”), the verb must be third person, regardless of the person of the antecedent. The following examples, both of which have a relative verb in the 3rd person, illustrate this point:

- (3) MI 47<sup>a</sup>2 *is me-se nad·frithchomart nech* “it is I who have not injured anyone”  
 (4) MI 130<sup>c</sup>3 *me-sse ·ass-id·beir libera* “[it is] I who say it: libera”

Once again, this restriction limit the appearance of 3rd person *notae augentes*, but not 1st and 2nd. The end effect of these restrictions is that *notae* are much more frequently barred from agreeing with the subject of verbs of the 3rd person than with the subject of verbs of the 1st or 2nd person. In sentences with an overt 3rd person subject or a subject antecedent, a 3rd person subject *nota* is blocked, leaving the path clear for agreement with an infixed object:<sup>3</sup>

- (5) MI 33<sup>a</sup>19 *ind-í fo-dam·segat-sa* “they who trouble me”  
 (6) Wb11<sup>b</sup>4 *no-b·sóirfa-sí dia* “God will free you (pl)”

All the facts thus far suggest that 3rd person verbs with infixed 1st or 2nd person pronouns would frequently exclude 3rd person *notae* but would allow non-3rd person object *notae*. Further support for this situation comes from the passive. 1st and 2nd person passives in Old Irish are made by placing the logical subject as an infixed pronoun in the 3sg passive verb form. From a semantic point of view, it is impossible for a 3rd person *nota* to be affixed in this case, meaning that any *nota* would be 1st or 2nd person, again supporting the tendency for 3rd person verbs with non-3rd person infixes to have *notae* agreeing with the infixed pronoun. These various facts allow us to make the following conclusion: at first, in 3rd person verbs with 1st or 2nd person infixed pronouns, the *notae* preponderantly agreed with the infixed objects; over time, this preponderance developed from a simple statistical trend to a fixed rule.

#### The 3rd person at the bottom of the hierarchy, Part II: non-3rd person verbs

To this point, we have examined 3rd person verbs with non-3rd person objects. Now the reverse case, non-3rd person verbs with 3rd person infixed objects, must be considered. Third person objects of a verb can be expressed in three ways: with a full noun phrase (NP), in which case no 3rd person object *nota* is possible on the verb; with an infixed pronoun, in

<sup>3</sup> This statement follows from the earlier assumption that subject agreement for *notae* was possible at a time before object agreement was. When object agreement became possible, 3rd person verbs frequently had no *nota* attached, meaning that the slot was open for object agreement.

which case a *nota* is possible; and with both, in which case no *nota* is possible. One might argue that analogy can explain the fact that 3rd person object *notae* may not appear on such verbs. That is, infixed 3rd person pronominal objects may simply have not allowed a *nota* on the model of full NP objects, where no *nota* is possible. This explanation is not overly convincing, however, since cross-linguistically pronominals and full NPs often have a different syntax.<sup>4</sup> Thus, there is no particular reason for the infixed pronominals to lack a *nota* simply because full NPs did. An additional argument against the analogy is that 3rd person infixed pronouns can take a *nota* if the subject is also 3rd person. A more promising explanation is the case of the doubly marked accusatives explored in Lucht 1994. Here, a full NP object was doubled by an infixed or suffixed pronoun. No *nota* was possible. Such a constellation could legitimately be expected to have influenced the appearance of *notae* with infixed 3rd person pronouns, but because the number of examples with a full NP object and doubled infixed pronoun is not large<sup>5</sup>, the influence of this type is probably not significant.

Since no theoretical models appear to be able to explain why 3rd person infixed objects cannot receive a *nota augens* with non-3rd person subjects, it is necessary to gather some raw data on often a *nota augens* of each person and number appears relative to how often it could appear. The data in the following table are presented with percentages first and raw numbers in parentheses (the number of examples with a *nota* present divided by the total number of examples where a *nota* is possible):

	subject with <i>nota augens</i>		infix object with <i>nota augens</i>	
	singular	plural	singular	plural
1st	39% (156 / 401)	28% (80 / 289)	47% (35 / 75)	36% (24 / 66)
2nd	24% (44 / 182)	23% (74 / 317)	8% (1 / 13)	21% (12 / 57)
3rd masc	18% (219 / 1214)	7% (45 / 684)	13% (4 / 32)	13% (3 / 23)
3rd fem	8% (1 / 13)		0% (0 / 3)	

Table 1: Percentage of time a *nota augens* appears on a verb<sup>6</sup>

The table clearly shows that *notae* appear most often with 1st person and least often with the 3rd person. The exact cause for this fact is unclear, although a possible explanation

<sup>4</sup> Some examples are given in Nichols 1992, 77ff. and Siewierska 2006, 151-4, the latter of which notes that Welsh is a classic example of a language with different syntax for nouns and for pronouns. Nouns do not take verbal agreement (i.e. they must have a 3sg verb), while pronouns do take verbal agreement. Roberts 1999, 622 also observes parallel differences in the syntax of possessed nouns, prepositions, and objects of transitive verbs.

<sup>5</sup> This type represents between 2% and 10% of the total examples (roughly 8% of the examples are ambiguous due to the vagaries of Irish orthography); see Lucht 1994, 88 for the figures.

<sup>6</sup> The data are gathered from Würzburg and the first 53 folios of Milan (roughly 38% of the total number of glosses). For the third person subject *notae*, the data is from Griffith 2008a, 67 and encompasses all of Milan and Würzburg. Third person agreement of a *nota* with a neuter is ignored, since it is almost non-existent in Old Irish. Also, note that a *nota augens* can only agree with a 3rd person object if the subject is also 3rd person. Furthermore, to be sure that the agreement is with the object, the subject must be overt, relative or non-human (or one ARGUMENT is fem and the other masc or plural). Very few examples meet these criteria, thus explaining the very small sample size for 3rd person infixed objects.

is offered below. For right now, however, the important facts are that the 3rd person *notae* appear very infrequently even when they could have appeared (i.e. when there is no overt subject or object and no subject antecedent relative verb). This rarity of appearance gives a clue as to how the 3rd person *notae* may have become blocked when a 1st or 2nd person object was present.

First, recall that the agreement of *notae augentes* with infixed objects came about later than with subjects. That means that the presence of a subject agreeing *nota* would have blocked an object agreeing *nota*.<sup>7</sup> Given the frequency of subject agreeing *notae* with the 1st and 2nd person pronouns, there would have been little chance that a slot for a 3rd person object *nota* would still be available. Even if it were, however, the chances of it a 3rd person object receiving a *nota* were small (roughly 12% for all 3rd persons taken together). It thus appears that there was a statistical trend for 3rd person infixed objects not to have a *nota augens* when the subject was 1st or 2nd person. This trend at some point became a fixed rule that eliminated the possibility of a 3rd person *nota* appearing.

The upshot of the discussion to this point is that we have arrived at explanations for why the 3rd person ranks lower than 1st and 2nd persons. It appears that what at first was a marked preference against 3rd person *notae* simply became a fixed rule eliminating the possibility of a 3rd person *nota* appearing in a context where a 1st or 2nd person one was allowed. In terms of language acquisition, we can assume that a child learning the language simply made a generalization that 3rd person *notae* were barred in such situations.

#### Ranking the 1st and 2nd persons

We may now turn to the 1st and 2nd persons, whose ranking relative to one another has not been discussed. Here, no theoretical models would seem to make any prediction about the ranking, so we must turn to the data gathered in Table 1 above to see if it reveals any patterns. As it happens, the frequency of 1st and 2nd person *notae augentes* is such that over time a skew can be expected to develop in which the 1st person is favored over the 2nd person in every combination of 1st or 2nd person subject with 1st or 2nd person object.

To illustrate, let us examine examples with a 1sg subj and 2pl object, as in *do-b·biur* “I bring you (pl)”. Such examples would have a 1st person *nota* about 39% of the time and a 2pl *nota* about 21% of the time that it was possible. However, according to our earlier assumptions, an object *nota* is only possible when a subject *nota* is not present, reflecting the chronological priority of subject agreement over object agreement. Thus, the 2pl *nota* could appear  $21\% \times (100-39) = 13\%$  of the time. In other words, in 61% of examples there is no 1st person *nota*, and in 21% of those examples a 2pl *nota* can appear. A 1sg *nota* is therefore three times more likely than a 2pl *nota* in such examples. In the converse situation, *do-m·beirid* “you (pl) bring me”, a 2pl *nota* appears 21% of the time and a 1sg *nota* 31% ( $= 39\% \times (100-21)$ ) of the time. Also in this case a 1sg *nota* is more likely. One can thus argue that, in verb + object combinations with 1sg and 2pl, the 1sg is favored and over time could become more so, eventually simply ousting the 2pl as an option. The same is true for combinations involving the 1pl and 2sg, 1sg and 2sg, and 1pl and 2pl. As a result, the 1st person is always favored relative to the 2nd person. We therefore have a possible explanation for how the 1st person became more highly ranked than the 2nd person.

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<sup>7</sup> This is, of course, not strictly true, since the assertion mixes synchronic and diachronic mechanisms, but for the language as a complete data set, the statement is valid.

There are a number of caveats in this line of reasoning, however, and it is worth discussing them. The first and most important is that it is unsure whether the relative frequencies of the various *notae augentes* (as seen in Table 1 from Wb and MI) was the same in Pre-Irish. It has been assumed here that the frequencies have remained roughly constant. I see no particular reason why they should have changed drastically, but that certainly does not rule out the possibility that the relative frequency of appearance of 1st, 2nd, and 3rd person *notae augentes* was much more even in Pre-Irish, i.e. it did not favor the 1st person over 2nd and 2nd over 3rd. Still, however, there appears to be no change in the frequencies between Würzburg and Milan, so it is quite possible that this aspect of the grammar remained somewhat consistent. Once data from St. Gall is collected, it will give an important third comparison point that may shed new light on the situation.

A second concern with methodology employed here (using the relative frequencies of the *notae* to make inferences) is that it does not question why the 1st person occurs more frequently than the 2nd and the 2nd more frequently than the 3rd. The answer to that question more than likely depends heavily on the function of the *notae augentes*. While a full investigation of that question is the subject of a separate paper, the outline of a solution can be given here.

As was argued in Griffith 2008b (following Greene 1973, 122ff), the *notae augentes* are simply normal pronouns. Since they are optional, however, meaning that Old Irish is a pro-drop language, the *notae* can take on secondary functions, which is probably how they developed the contrastive meaning that they have in Modern Irish. It is unlikely, however, that the *notae* in Old Irish were primarily either contrastive or emphatic. Emphasis was more commonly achieved through a cleft construction, and the pronoun *féin* / *fadein* / *fadessin* was used for both contrast and emphasis (Ó Cuiv 1974). It seems likely that the *notae augentes* were used rather for some other discourse function. The details are extremely difficult to pin down, but it seems that, at least in the 3rd person, the *notae* referred to the TOPIC of the discourse (see Griffith 2008b, 4-5). If the *notae augentes* primarily referred to the TOPIC,<sup>8</sup> we may finally be able to explain the higher frequency of 1st person over 2nd and 2nd over 3rd. As Wierzbicka 1981 has observed, the 1st person is more generally topic-worthy than other persons, and this could explain why 1st person *notae* are found relatively more often than other persons. Much of what has been argued for here has been necessarily speculative, but the speculation appears to fit the facts quite well. Clearly, much more research is called for in order to determine what part or parts of this account need to be modified.

### Conclusions

We can now formulate conclusions as to the origin of the animacy hierarchy as found in the distribution of the *notae augentes* in Old Irish. It has been observed that many

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<sup>8</sup> Given the presence of examples where more than one *nota augens* is present in the same sentence (Wb 15<sup>36</sup>: *do-beir teist dín-ni cretem dúib-si* “your (pl) believing bears witness to us”), simple topic-marking is probably not the whole story with regard to the function of the *notae augentes*. Still, however, it appears to represent an important piece of the puzzle.

languages show evidence of a hierarchy non-3rd person > 3rd person,<sup>9</sup> making this part of the hierarchy the most robust. Interestingly, this part of the hierarchy is also the easiest to explain within Old Irish. The 3rd person *notae* show many restrictions on their appearance (incompatibility with an overt NP or referring relative verb, comparative rarity of use), and these restrictions, over time, probably led to a general ban on 3rd person *notae* when a non-3rd person *nota* was also possible. The ranking of 1st and 2nd persons is more difficult both cross-linguistically and also in Old Irish. Here, it appears that the more frequent occurrence of 1st person *notae* in general led to their dominating the 2nd person in those cases where there was direct competition. In all cases, the exceptionless hierarchy of *notae augentes* in Old Irish can be argued to have resulted from language transmission in which children reanalyzed more frequent patterns (1st > 2nd and non-3rd > 3rd) as mandatory rules.

A close examination of the data of Old Irish allows a diachronic account of the rise of the animacy hierarchy. It thus seems that while the Old Irish data conform to the hierarchy, the hierarchy itself is not what caused that conformity. At the same time, however, in order to account for the differential frequency of 1st, 2nd, and 3rd person *notae*, we are forced to resort to a different cross-linguistic generalization: that the 1st person is more topic-worthy and thus more frequent. Only by an effective blending of the findings of typological linguistics with close philological and historical analysis can we explain the animacy hierarchy in Old Irish in a satisfying manner.<sup>10</sup>

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<sup>9</sup> See Siewierska 2006, 148ff., who notes that there are many languages in which 1st and 2nd person are marked on the verb, but not 3rd. The Tibetan language Nocte is such a language (see Siewierska 2006, 55-6 and DeLancey 1981, 641ff.).

<sup>10</sup> I am, of course, assuming that stating that the hierarchy arose in Old Irish because it is part of Universal Grammar is not as effective an explanation as the one given here. That assumption is naturally disputable, but it is clear where my sentiments lie.

- 2008, Vienna. Abrufbar unter  
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