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running head: The animacy hierarchy and the *notae augentes* in Old Irish

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Abstract: A previously unknown restriction on the *notae augentes* in Old Irish is demonstrated here: the appearance of a *nota augens* after a verb containing an infix pronoun is governed by a rigid and exceptionless hierarchy that is sensitive to the person of the subject and object, as well as to whether they are human or non-human. It is further demonstrated that the *notae augentes* of the 3rd person refer (almost) exclusively to humans.

The animacy hierarchy and the distribution of the *notae augentes* in Old Irish*

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Apart from rather cursory descriptions in the handbooks (GOI §403-4, VKG II.137ff) and brief discussions of the etymologies of some forms (Sims-Williams 1984, 151; Schrijver 1997, 17-25; McCone 2006, 214-24), the *notae augentes* (henceforth, *nota* / *notae*) have been largely ignored, most likely because they have not appeared interesting to scholars of either diachronic or synchronic linguistics. In point of fact, the *notae* do have something of interest to offer, as this study aims to show.

Before proceeding, however, we should review the basic facts about the function, forms, and distribution of the *notae* (as in GOI §403-4). Traditionally, it has been assumed that the *notae* served to reinforce or emphasize the pronominal element with which they were associated. The classical forms, as found in the glosses, are given below. The alternants arise based on the quality of the preceding sound:

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

There is also a rare form *-sa*, which is sometimes found for *-som* in archaic sources (GOI p. 694, Addenda to §403), though it will not figure in the discussion here. As for their distribution, the *notae* are always clitic and may be found after the following classes of words:

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- independent personal pronouns
- nouns preceded by a possessive pronoun
- conjugated prepositions
- nouns and/or adjectives preceded by copula (expressed or implied)
- verbs, agreeing with infixed object or with subject

This investigation will focus on the last-named category.

It has hitherto been assumed that in a verb with infixed pronoun, the choice as to whether the *nota augens* would agree with the subject or object was free, depending on whether the writer wished to emphasize the subject or object of the verb. To test whether this assumption is correct, all forms in the *Thesaurus Palaeohibernicus* of verbs with both infixed pronouns and *notae* were collected. These are given in the following tables, with the exclusion of non-third person passive verbs, forms having dative force with the substantive verb (e.g. Wb. 21^c17 *ro[b] bia-si* ‘you (pl.) will have’), and cases of the dummy 3sg. nt. *-d-* either with certain verbs (e.g. *at-baill*) or after *ma* and *cía* with the indicative (GOI §426).¹ The five tables are organized by type of *nota* found (1sg., 1pl., 2sg., 2pl., and third person) and, within each table, the subject and object are indicated in order to make clear what categories are found with each particular *nota*. For reasons indicated below (p. 17), forms with an overt noun subject (or object; see Lucht 1994 for a collection and discussion of such forms) or with a relative subject antecedent should be distinguished from forms without overt subjects and objects. To that end, forms with an overt subject or object or with a relative subject antecedent are hereafter given in bold (either the text itself

¹ The rationale for these exclusions is that in each case there is not really a choice between subject and direct object. For the passives, the infixed object *is* the subject; for the dummy 3sg. nt. *-d-* after *cía* and *ma* and lexicalized in certain verbs, the pronoun does not represent a true object (i.e. in the case of *at-baill* ‘dies’ < ‘kicks it’, the infixed pronoun cannot be said any longer to stand for a noun); for the substantive verb, the infixed object is rather an indirect object. As it turns out, the pattern established below for the remaining verbs with infixed direct object also holds for these three categories, but that need not necessarily have been true.

or the citation if the text is not given). Only one example is given of each type, all additional examples of that type (if any) being given in footnotes.²

Subj.	Obj.	Gloss
1sg.	1sg.	Ml. 130 ^d 5 <i>tom mén[ar]-sa dia</i> ‘I thought myself God’ ³
1sg.	1pl.	no examples
1sg.	2sg.	Wb. 27 ^d 19 <i>amal rot gád-sa</i> ‘as I have besought you (sg.)’ ⁴
1sg.	2pl.	Wb. 23 ^c 12 <i>amal nondub cairim-se</i> ‘as I love you (pl.)’ ⁵
1sg.	3sg. n.	Wb. 3 ^c 30 <i>na gnú-sa</i> ‘I do it’ ⁶
1sg.	3sg. m.	Wb. 9 ^b 7 <i>dond n-indinsin-se</i> ‘that I should deliver him’ ⁷
1sg.	3sg. f.	Ml. 75 ^a 9 <i>nís dēnaim-se</i> ‘I do not do it’
1sg.	3pl.	Wb. 5 ^c 7 <i>nos carim-se</i> ‘I love them’ ⁸
1pl.	1sg.	no examples
2sg.	1sg.	Ml. 72 ^d 11 <i>dum em-se</i> ‘protect me!’ ⁹
2pl.	1sg.	Wb. 7 ^a 12 <i>co fardum thésid-se</i> ‘so you (pl.) may help me’
3sg. n.	1sg.	Ml. 48 ^a 21 <i>rodam soer-sa</i> ‘which delivered me’ ¹⁰
3sg. m.	1sg.	Wb. 28 ^a 12 <i>rom ícc-sa</i> ‘He has saved me’ ¹¹
3sg. f.	1sg.	Ml. 86 ^d 3 <i>ol nacham didna-sa</i> ‘because it (L <i>expectatio</i> = OIr fem. <i>n</i> -stem <i>frescissiu</i> , cf. Ml. 53 ^b 22) does not console me’ ¹²
3pl.	1sg.	Ml. 130 ^b 12 <i>immum t[h]immerchellsat-sa</i> ‘they surrounded me’ ¹³

Table 1: Subjects and Objects found with 1sg. *nota augens*

² Some of the categories below are very unlikely to occur, for example 1sg. subj. with 1pl. obj. or 2sg. subj. with 2pl. obj. (and vice versa). However unlikely, such combinations are still possible in languages of the world, even if highly marked. For example, one can say in English *I really like us* or *what do we want me to do?* (both must be understood to be said by one half of a couple). In German one can say *du hilfst euch Beide nicht* ‘you (sg.) are not helping you (pl.) both’. Whether such sentences are possible in Old Irish is unclear. However, because they are at least theoretically possible, they are included in the tables below with the remark ‘no examples’, which leaves open the question as to whether the absence is accidental or systematic.

³ Ml. 29^d3, 31^c14, 38^c21 (see *Thes* i 719 and DIL D 264.54); *Thes* ii 248.11 (St. Gall incantations)

⁴ Wb. 31^b1; Ml. 46^b20, ^d14, 62^c16, 63^a3, 72^c4

⁵ Wb. 8^a1, 14^c18, 25^c29; Ml. 103^c15

⁶ Wb. 3^c22, 8^a5, 13^a25, 29, 14^c40, ^d24, 26, 16^d4, 30^a21; Ml. 36^a32

⁷ Wb. 19^a6; Ml. 126^c17

⁸ Wb. 26^d10; Ml. 39^a13, 44^b10-11, 57^d3, 109^c9

⁹ Ml. 21^b6, 24^a15, 32^d5, 38^d18, 42^a8, 44^b10-11, 26, 49^d13, 55^b2, 70^c11, 71^c19, 74^d7, 76^d5, 142^b3

¹⁰ Wb. 1^a8

¹¹ Wb. 5^a18, 17^d14; Ml. 45^c3, 74^b13, 78^b18; *Thes* ii 245.6 (Cambrai); *Thes* ii 241.13 (Armagh)

¹² Wb. 3^d20; Ml. 45^d5, 107^b8

¹³ Wb. 5^c6; Ml. 39^d10, 11, 14, 44^c32, 54^b26, ^c29, ^d14, 59^a21, 62^c21, 140^c1

Subj.	Obj.	Gloss
1pl.	1sg.	no examples
1pl.	1pl.	Wb. 15 ^a 4 <i>run sluinfem-ni</i> ‘we will be able to name ourselves’ ¹⁴
1pl.	2sg.	no examples
1pl.	2pl.	Wb. 24 ^d 20 <i>rob gadammar-ni</i> ‘we have entreated you (pl.)’ ¹⁵
1pl.	3sg. n.	Wb. 13 ^b 10 <i>amal ron pridchissem-ni</i> ‘as we have preached it’ ¹⁶
1pl.	3sg. m.	Ml. 53 ^b 19 <i>amal nund guidem-ni</i> ‘as we pray to him’
1pl.	3sg. f.	Ml. 24 ^d 24 <i>amal runda legsam-ni</i> ‘as we have read it (<i>canóin</i>)’ ¹⁷
1pl.	3pl.	Ml. 93 ^d 14 <i>as*nda fiadam-ni</i> ‘that we declare them’
1sg.	1pl.	no examples
2sg.	1pl.	Ml. 22 ^c 3 <i>fortan roichan-ni</i> ‘you (sg.) have instructed us’ ¹⁸
2pl.	1pl.	Wb. 15 ^c 28 <i>ron fitid-ni</i> ‘you (pl.) know us’ ¹⁹
3sg. n.	1pl.	Wb. 21 ^b 8 <i>ronn ícc-ni</i> ‘which (<i>rath</i>) has saved us’
3sg. m.	1pl.	Wb. 2 ^d 14 <i>hóre ron soír-ni</i> ‘because He has saved us’ ²⁰
3sg. f.	1pl.	no examples
3pl.	1pl.	Ml. 135 ^d 4 <i>fortan bristis-ni</i> ‘that they could crush us’ ²¹

Table 2: Subjects and Objects found with 1pl. *nota augens*

¹⁴ Wb. 2^d9

¹⁵ Wb. 25^a35

¹⁶ Wb. 4^a27, 20^d17; Ml. 105^b6

¹⁷ Wb. 34^a2; Sg. 16^a8

¹⁸ Ml. 46^b26, 62^d4, 77^d6 (twice), 7, 89^a6, 93^d10, 110^d9, 136^c11

¹⁹ Ml. 78^d7

²⁰ Wb. 4^a27, 6^d11, 11^b7, 14^c35, 15^a8; Ml. 53^d9, 108^a9, 120^a3

²¹ Ml. 32^a19, 63^b1

Subj.	Obj.	Gloss
2sg.	1sg.	no examples
2sg.	1pl.	no examples
2sg.	2sg.	MI. 101 ^c 3 <i>fot chridigther-su</i> ‘You (sg.) gird yourself’ ²²
2sg.	2pl.	no examples
2sg.	3sg. n.	Wb. 32 ^a 25 <i>don genae-siu</i> ‘that you (sg.) will do it’ ²³
2sg.	3sg. m.	no examples; but see <i>Audacht Morainn</i> l. 137 in Appendix
2sg.	3sg. f.	no examples
2sg.	3pl.	MI. 102 ^b 10 <i>dianda dercaither-su</i> ‘if you (sg.) look at them’ ²⁴
1sg.	2sg.	no examples
1pl.	2sg.	no examples
2pl.	2sg.	no examples
3sg. n.	2sg.	MI. 43 ^b 11 <i>fortat tet-su</i> ‘it (<i>hoc nomen</i>) helps you (sg.)’
3sg. m.	2sg.	MI. 133 ^a 14 <i>dundat re-siu</i> ‘that he might strip you (sg.)’ ²⁵
3sg. f.	2sg.	no examples
3pl.	2sg.	MI. 112 ^e 1 <i>dot emfet-su</i> ‘they will protect you (sg.)’

Table 3: Subjects and Objects found with 2sg. *nota augens*

²² Wb. 30^a9; MI. 112^b6

²³ MI. 40^b2, 87^a8

²⁴ MI. 36^d2

²⁵ MI. 93^a15

Subj.	Obj.	Gloss
2pl.	1sg.	no examples
2pl.	1pl.	no examples
2pl.	2sg.	no examples
2pl.	2pl.	no examples
2pl.	3sg. n.	Wb. 27 ^a 27 <i>ni chretid-si</i> ‘you (pl.) do not believe it’ ²⁶
2pl.	3sg. m.	Wb. 9 ^b 7 <i>dod n-indnaste-si</i> (MS <i>-astise</i>) ‘that you (pl.) deliver him’ ²⁷
2pl.	3sg. f.	no examples
2pl.	3pl.	Wb. 5 ^a 13 <i>ata samlibid-si</i> ‘you (pl.) will imitate them’ ²⁸
1sg.	2pl.	no examples
1pl.	2pl.	no examples
2sg.	2pl.	no examples
3sg. n.	2pl.	Wb. 16 ^d 10 <i>rob ánic-si irfócre</i> ‘a warning reached you (pl.)’
3sg. m.	2pl.	MI. 18 ^a 7 <i>co chota[b] bosad-si</i> ‘so that he should crush you (pl.)’ ²⁹
3sg. f.	2pl.	Wb. 19 ^b 12 <i>rob nóib-si</i> ‘which has sanctified you (pl.)’
3pl.	2pl.	Wb. 14 ^d 37 <i>atob segat-si</i> ‘who go to you (pl.)’

Table 4: Subjects and Objects found with 2pl. *nota augens*

²⁶ Wb. 7^d4, 13^b10, 14^d24, 15^a7, ^d6, 16^c9, **18^b9**, **21^c12**, 23^c7, 24^c16; MI. 103^b13

²⁷ Wb. 24^b21; MI. 103^c15

²⁸ Wb. 24^b12

²⁹ Wb. 8^c16, **11^b4**, **23^d4**

Subj.	Obj.	Gloss
1sg.	3sg./pl.	no examples
1pl.	3sg./pl.	no examples
2sg.	3sg./pl.	no examples
2pl.	3sg./pl.	no examples
3sg./pl.	1sg.	no examples
3sg./pl.	1pl.	no examples
3sg./pl.	2sg.	no examples
3sg./pl.	2pl.	no examples
3sg. n.	3sg./pl.	no examples
3sg. m.	3sg. n.	Ml. 46 ^a 11 <i>at beir-som</i> ‘he says it’ ³⁰
3sg. m.	3sg. m.	Ml. 43 ^c 13 <i>ra cload-som</i> ‘He should hear him’ ³¹
3sg. m.	3sg. f.	Ml. 49 ^b 7 <i>dos ber-som</i> ‘he inflicts it (<i>dígal</i>)’ ³²
3sg. f.	3sg. n.	no examples
3sg. f.	3sg. m.	Ml. 61 ^a 1 <i>rod ngab-som</i> ‘which had seized him’ ³³
3sg. f.	3sg. f.	Wb. 9 ^d 5 <i>nis *nderig-si</i> ‘it (<i>dlúm</i>) does not leave her’
3sg. n.	3pl.	Ml. 63 ^b 12 <i>duda ruid-som</i> ‘which led them’ ³⁴
3sg. m.	3pl.	Wb. 25 ^b 9 <i>nos *nguid-som</i> ‘he beseeches them’ ³⁵
3sg. f.	3pl.	Wb. 5 ^c 12 <i>doda essarr-som</i> ‘which will save them’
3pl.	3sg. n.	Ml. 124 ^d 9 <i>amal asind bertatar-som</i> ‘as they said it’ ³⁶
3pl.	3sg. m.	Ml. 112 ^b 20 <i>cot n-oat-som</i> ‘they guard him’ ³⁷
3pl.	3sg. f.	Ml. 24 ^d 24 <i>ronda saibset-som</i> ‘that they perverted it (<i>canóin</i>)’
3pl.	3pl.	Ml. 44 ^a 14 <i>dos ratsat-som-adi</i> ‘they applied them’ ³⁸

Table 5: Subjects and Objects found with third person *nota augens*

Having thus assembled the data, we may make some generalizations about when the different *notae augentes* are allowed. The 1sg. and 1pl. *notae* (Tables 1 and 2) do not appear to have any systematic restrictions on their distribution. The same cannot be said of the 2sg. and 2pl. *notae* (Tables 3 and 4), since they are never found together with a first person subject or object. The *notae* of the third person (Table 5) are even more restricted, since they never appear unless both the subject and the object are

³⁰ Wb. 4^b20, 8^a14, 13^d17, **24^a7**, 27^c18; Ml. 50^b8, 53^b27, 56^b3, 118^b6, **124^b3**; Sg. 14^a5 (may contain a non-dummy infixed pronoun, see translation *Thes* ii 65.42-3); Tur. 80

³¹ Wb. 4^a10, 8^a4, 25^b16; Ml. **19^d16**, 20^b2, 33^b5, 38^c4, **39^c22**, **44^d16**, 72^c1, 133^a9; Tur. **18**

³² Wb. 31^a9; Ml. 29^a3

³³ Ml. **62^c19**

³⁴ Ml. **39^c15**

³⁵ Ml. **23^b5**, 26^b8, **34^b6** (?)

³⁶ Wb. 8^a10a, 21^d11, 24^b20; Ml. 28^d8, 64^a10

³⁷ Ml. 22^a4, 131^c10; Tur. **6**

³⁸ Ml. **46^c8**

third person. This distribution, though highly unexpected, is exceptionless³⁹ and can be represented by a hierarchy:

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

The first person stands at the top, since the 1sg. and pl. *notae* may always occur. The second person ranks below the first person, since the presence of a first person subject or object bars a *nota* of the second person from appearing. At the bottom of the hierarchy stands the third person, which is only allowed if neither a second or first person form is subject or object.

This hierarchy is quite firmly anchored in the Old Irish of the glosses, as the approximately 200 examples given above show (see appendix for examples outside *Thes*). If we examine the cases of third person *notae* with infixed pronouns, however, we can refine the hierarchy a bit further. It is frequently impossible to decide whether a third person *nota* agrees with the subject or the object (e.g. MI. 112^b20 *cot n-oat-som* ‘they (angels) guard him’), but in a small number of cases, we can be sure which one the *nota* agrees with:⁴⁰

- (2) Wb. 5^c12 ***bid missericordia... doda esarr-som*** ‘...mercy that will save them’
 (3) Wb. 31^a9 *ros failsigestar-som-sidi* ‘he has manifested it (*bríathar* f. ‘word’)’
 (4) MI. 24^d24 *ronda saibset-som* ‘that they perverted it (*canóin* f. ‘canon’)’
 (5) MI. 29^a3 *forta comai-som* ‘he preserves it (*scíam* f. ‘figure’)’
 (6) MI. 49^b7 *dos ber-som* ‘he inflicts it (*dígal* f. ‘punishment’)’
 (7) MI. 61^a1 ***indhuall rod ngab-som*** ‘the pride (f.) which had seized him’
 (8) MI. 62^c19 ***inna firbrithemnachtae dud rigni-som inraicc*** ‘of the righteous judgment (f.) which made him worthy’

³⁹ MI. 34^a4 *mu riis-si far ndochum* ‘I might soon come to you (pl.)’ is not an exception. Although a 2pl. *nota -si* appears to be attached to a 1sg. verb, this is certainly an error. Two readings are possible: *mu riis-se* (with 1sg *nota* for *-si*) or *mu riis far ndochum-si*. On *mu-* for *mus-*, see GOI §384.

⁴⁰ These seven examples represent all sentences where it is unambiguous as to whether the 3rd person *nota* agrees with the subject or object. A further restriction on the distribution of the *notae*, for which see below (p. 17), means that only in examples (3), (4), (5), and (6) was the choice between *-si* and *-som* truly possible. Wb. 9^d5 *nis *nderig-si* ‘it does not leave her’, is an ambiguous example, since the subject is fem *ā*-stem *dlúm* ‘mass’, despite Kavanagh’s (implied, though not explicit) analysis (2001: 792), in which *peccad* ‘sin’ is the subject.

A possible analysis based on the above examples is that masculine outranks feminine. No examples in the glosses disprove this, but a couple of forms from other sources show this assumption to be incorrect:

- (9) *beirthi-ssi* ‘she carries it (*lestar* n. *o* ‘vessel’)’ (*Scéla Éogan*, p. 120.33)
(10) *for racab-si Dubthach* (*for* = *fos*) ‘Dubthach left her’ (*Bethu Brigte*, l. 115)

If we observe that in the numbered examples above, the *nota* always agrees with the human subject or object to the exclusion of the non-human one, we can make what is more likely the correct deduction: a human participant outranks a non-human one.

With this assumption, we can further refine the hierarchy posited above in (1):

- (11) 1st person > 2nd person > 3rd person human > 3rd person non-human

The evidence for the ranking 3rd person human > 3rd person non-human is not large.

While these few examples may be sufficient in and of themselves, it must be admitted that further supporting evidence would be most welcome, and it is to such evidence that we may now turn.

As it turns out, support for the ranking human > non-human comes in two forms: cross-linguistic evidence and inner-Irish evidence. Starting with the cross-linguistic evidence, we may note that some languages rank nouns and pronouns along a scale. First formalized by Silverstein (1976), this ranking, known as the animacy hierarchy, has received wide-spread attention within the theoretical and descriptive linguistic communities (see Croft 1990: 95-123, esp. 111-17, for a general overview; more specialized are Comrie 1989: 124-37 and Dixon 1994: 83-97). The term ‘animacy’ was chosen because very frequently the animacy (very roughly ‘sentience’)

of what a noun denotes plays a factor in its placement within the scale. A highly elaborate animacy hierarchy is presented below (from Dixon 1994: 85):

(12) 1st pron > 2nd pron > 3rd pron > proper noun > human > animate > inanimate

It appears that no language uses all these divisions, and some switch the place of the 1st and 2nd person pronouns, but the hierarchy as a whole is quite robust and useful.⁴¹

How the hierarchy functions in different languages varies. For instance, some languages require that a possessor outrank the possessed on the hierarchy (e.g. the Algonquian languages generally, Tzotzil (Mayan), and Chamorro (Western Austronesian); see Aissen 1999 with references), some languages use different verb morphology depending on the relative rank of the subject and object on the hierarchy (Algonquian languages generally; see Macaulay 2005 for an overview of the systems found in the various languages), and some languages determine what case-marking system to use for subject and object based on the animacy hierarchy (i.e. split ergativity systems; see Dixon 1979 and 1994). Though the function of the animacy hierarchy varies, its very consistent appearance across languages makes it likely that all languages have some sort of access to it. The importance of this discussion of the animacy hierarchy for our purposes is that the hierarchy governing the *notae augentes* in Old Irish (item (11) above) conforms exactly to that found in a variety of other languages. Thus, the argument made above that 3rd person *notae* will always refer to humans to the exclusion of non-humans receives cross-linguistic support.⁴²

Nevertheless, it remains highly desirable to adduce inner-Irish evidence to

⁴¹ There is some debate as to whether or not there is a single, universal animacy hierarchy, valid for all languages. This study does not propose to address the question. Rather, the existence of various, roughly similar animacy hierarchies in widely separated, unrelated languages is sufficient as support for the rankings proposed here for Old Irish.

⁴² There is reason to believe that animacy plays a role elsewhere in the grammar of Old Irish (for one example see Stifter 2006: 160-1 on non-syncope in dental and guttural stems denoting humans), though generally the evidence is more subtle than that found in the hierarchy of *notae augentes*.

demonstrate that *notae augentes* in verbs with infixed pronouns agree with human nouns to the exclusion of non-human ones. In producing this inner-Irish evidence, however, a much stronger claim will be offered and tested: 3rd person *notae* refer (almost) exclusively to humans. This fact, if confirmed, will supersede the claim (GOI §403) that *-som* is nearly always non-neuter and will explain in a totally straightforward manner why human nouns stand above non-human ones on the hierarchy of *notae* for Old Irish. To test this hypothesis, we must examine the third person *notae* in all of their uses, not just when they appear attached to a verb with an infixed pronoun. To start with, we will examine the 3sg. masc. / nt. *-som*, since it is by far the best attested of all the 3rd person *notae*.

The following table shows whether *-som* refers to a human, non-human or neuter noun for the various categories of words that it follows (the categories are those in the lemma for *-som* in Kavanagh 2001: 818ff). For all tables below, the numbers in parentheses represent the number of examples in Würzburg and Milan, respectively (i.e. 9 (6/3) means 9 total examples, with 6 in Wb. and 3 in MI.).⁴³

⁴³ In this and following tables, examples from Wb. will not generally be given when they can be recovered from Kavanagh (2001). Also, in those categories where there are over 200 examples, the loci are omitted for reasons of practicality. They can, however, be provided upon request to interested persons.

word preceding <i>-som</i>	human referent	non-human referent	neuter referent
<i>a</i> + noun [+ adj.]	43 (23/20) ⁴⁴	0	0
conjugated prep.	174 (56/118) ⁴⁵	3 (2/1) ⁴⁶	4 (3/1) ⁴⁷
copula + noun and/or adj.	24 (16/8) ⁴⁸	2 (2/0) ⁴⁹	2 (1/1) ⁵⁰
<i>é</i> (masc. sg. pron.)	9 (6/3) ⁵¹	0	0
substantive verb	7 (4/3) ⁵²	0	0
verb	219 (61/158) ⁵³	2 (1/1) ⁵⁴	0

Table 6: Referents of *-som* in Würzburg and Milan⁵⁵

The table makes it clear that *-som* refers mostly to humans. To say that *-som* specifically selects for humans, however, we must ensure that the categories of words *-som* follows do not also select for male human referents (i.e. if *é* always refers to male humans, that *é-som* always refers to male humans means nothing). To that end, for the categories where *-som* appears (other than the copula, for which see below), all instances in Würzburg and Milan of contexts where *-som* could have appeared, but

⁴⁴ MI. 16^c10, 23^c15, ^d17, 53^a5, ^d6, 55^c1 (bis), 57^c7, 58^c6, 61^d2, 62^b21, 64^d13, 68^c12, 75^a1, 6a, 81^a7, 87^b20 (bis), 94^a4, 137^b5

⁴⁵ MI. 14^a4, 16^b15, 17^b2, 18^c6, ^d20, 19^c5, 19, ^d17, 22^d19, 23^b12, ^c11, 28^d6, 30^d19, 32^a5, ^c17, ^d10, 33^a5, 38^c9, 39^d28, 40^a14, 44^b8, 17, 45^c9, ^d2, 47^c5, 16, 17, ^d2, 50^b10, ^c20, ^d3, 6, 51^a19, ^b10, 53^a1, 2, 17, ^b20, 54^b30, ^c3, 35, ^d3, 55^a17, ^d5, 56^a20, ^b1, 32, 37, 57^a9, 59^a15, ^b10, 60^a4, ^b16, ^c2, 5, 61^d10, 62^a2, ^b9, 22, 24, ^c3, 6b, 13 (bis), 63^c9, 11, 64^a7, ^b6, 66^b9, ^d19, 68^b5, 69^d2, 73^d8, 74^b1, ^c9, 76^b3, 7, ^d3, 12, 82^a4, 85^a1, ^b12, 13, 17, ^d1, 88^b15, 89^c5, 90^b14, 91^a21 (bis), ^c19, 92^a12, ^c4, 93^a19, 94^c13, 96^c2, 97^d10, 98^b5, 100^b9, 101^c4, 107^d7, 113^c3, 10, 114^a2-3, ^d6, 115^b5, 123^c8, 124^b3, 126^b17, 127^a3, ^b1, 131^c14, 132^c6, 136^c4, 137^c13, 138^b4, ^d14, 144^c3

⁴⁶ Wb. 12^b5 (bis); MI. 37^a22

⁴⁷ Wb. 4^d6, 13^b31, 28^c5; MI. 62^b10

⁴⁸ MI. 14^a7, 30^d24, 40^d10, 57^c7, 58^c6, 67^c1, 72^b4, 96^b18; not included in this table is MI. 130^c18 *airis suidiu robuthir tair*ngeri som* ‘for herein it was the Land of Promise’, since it appears there is corruption of the text (see *Thes* i.446).

⁴⁹ Wb. 2^b26, 10^d27

⁵⁰ Wb. 5^a30; MI. 35^c26

⁵¹ MI. 30^c5, 53^a5, 90^b13

⁵² MI. 14^b13, 61^a4, 64^a12

⁵³ MI. 2^a6, 14^a4, 15^a2, ^d2, 17^b6, 22^c1, ^d19, 23^c15, 24^a17, ^c13, 27^d12, 29^a3, ^b8, 30^c5, 9, 17, 31^b17, 19, 25, ^c4, 32^d5, 10 (bis), 34^d5, 36^a34, 37^d10, 40^c20, 41^d4, 43^d1, 20, 44^d4, 45^a8, 46^a12, 21, ^d3, 48^c10, 51^c2, 11, ^d2 (bis), 10, 25 (bis), 53^a17, 19, ^b26, ^c13, ^d6, 9, 14, 54^a7, ^b28, 30, 18, 55^c1, ^d11, 56^b3, 33, 40, 57^d17, 58^a11, ^b5, 59^a7, 60^a12, 61^a23, ^d2, 62^a2, ^d13, 64^c19, 22, ^d8, 65^a1, ^b12, ^c6, 11, ^d12, 67^a8, ^b2, 18, ^c2 (bis), ^d8, 70^c6, 72^c1, 74^c12, ^d7, 9, 75^c4, 77^a2, ^d3, 11, 80^b3, 81^a5, 6, 84^a1, 85^b8, 11, 87^d1, 88^b15, 89^a8, 89^c5, ^d6 (ter), 90^a7, 91^a14, 21, 92^b10, 94^a4, ^b1, 11, ^c5, 17, 96^b18, 99^d9, 100^c3, 7, 13, 101^c13, 102^a15, ^b1, 5, 103^d26, 104^b5, ^c5, 107^a11, ^c16, 108^b6, ^c9, 12, 109^a1, 110^c5, 111^c4, ^d4, 116^d3, 118^b6, ^d8, 10, 120^d15, 121^a8, ^c16, 122^c6, 123^c8, 124^d9, 125^c4, 126^b2, ^c1, 10, ^d4, 127^a5, 19, ^d14, 129^a2a, ^d5, 130^a6, 133^a6, 138^c1, 145^d4, 8

⁵⁴ Wb. 4d15; MI. 131^c12

⁵⁵ Cases where there is an infixed pronoun with which *-som* could also agree are not included, since the referent is not uniquely determinable.

did not, were collected. By comparing the contexts with *-som* to ones without it, we can see whether *-som* specifically selects for male humans, as has been proposed here.

Before proceeding to the analysis itself, a few points should be discussed. The first of these is the decision not to analyse instances of the copula. Even given a collection of all 3sg. forms, a proper analysis of all copular sentences in Milan and Würzburg would greatly exceed the bounds of what is possible within a journal paper. MacCoisdealbha's thesis (1998) would have made the task manageable for the first 100 pages of Würzburg but for the fact that he does not discuss sentences containing *-som*. Therefore, although the collection and analysis of copular sentences with and without *-som* would be a valuable goal, it is not one undertaken here.

The other point to be touched upon before presenting the data concerns the statistics performed. For the most part, the tables below confirm the hypothesis to be tested in a manner so convincing that statistics seem superfluous. Nonetheless, in the interest of scientific validity, a very simple statistical test is used to evaluate the correctness of the claim that *-som* refers to humans to the exclusion of non-humans. The 2x2 tables below are divided into columns depending on the presence of *-som* and into rows according to human or non-human referent. We can then use a statistical test, called Fisher's Exact Test, to tell whether the relative proportion of human to non-human referents with *-som* is independent of the relative proportion of human to non-human referents without *-som* (more clearly, but somewhat inexactly: whether the relative proportions are statistically the same or different).⁵⁶ If the two proportions cannot be shown to be different, then the hypothesis that *-som* selects for human referents must be rejected. Fisher's Exact Test takes the relative proportions and

⁵⁶ The term relative proportion is important. It is not acceptable simply to use ratios, since they can be deceptive with small sample sizes. One must use the actual numbers. This fact helps explain why, in some tables below, the data will appear to confirm the predicted hypothesis, but the statistical test is inconclusive. In such cases, more data are required.

calculates a number, called the p-value, which indicates if the results are significant or not. If $p < 0.05$, it means that there is less than a 5% chance that two relative proportions are independent, and the results are significant. For this study, it would mean that there is a positive correlation of *-som* with human referents, thus giving support to the hypothesis that *-som* selects for humans. With this background in mind, we may turn to the numbers themselves.⁵⁷

Let us first turn to the 3sg. masc. / nt. possessive pronoun. All cases where *-som* could have appeared after *a* + noun [+ adj.] but did not were collected, in order to compare them to examples where *-som* was indeed present. Since it has already been established (see above and GOI §403) that *-som* only exceptionally refers to neuters, cases where *a* has a neuter referent were excluded, e.g. Wb. 2^a13 *líit fornn a épiirt* ‘they accuse us of saying it’. Also excluded from the examples are those cases where *-side* follows the noun, because the presence of *-side* blocks the appearance of *-som*,⁵⁸ e.g. Ml. 112^b12 *is toisgiu ad ciam teilciud in bela resiu ro cloammar a guth-sidi* ‘we see the throwing of the axe before we hear the sound of it’.

Once these two classes of forms were excluded, the remaining cases were gathered and divided into two groups: those where the possessive pronoun refers to a human noun and those where it refers to a masculine gender non-human noun. The task of determining the referent of the possessive is not always easy, since a referent is sometimes unexpressed. Of the 47 examples where *a* refers to a non-human, 29 of these have an overt referent expressed within the same gloss or in a surrounding one, e.g. Wb. 12^b11 *mad slaán in ball iarna galar* ‘if the member be whole after its

⁵⁷ For an excellent website on statistics in general, but also specifically on Fisher’s Exact Test, see the following URL, which fully explains, with useful examples, the terms and procedures needed to understand and use statistical tests: <http://udel.edu/~mcdonald/statfishers.html>

⁵⁸ The only time *-side* and *-som* appear together is precisely in verbs with infixed pronouns, when one clitic agrees with the subject and the other with the object. Otherwise, the two may not appear as clitics on the same word.

sickness’, where the referent of *a* ‘its’ is masc. *o*-stem *ball* ‘member’. A further eight examples do not have an explicit referent expressed, but the missing word is easily recoverable, as in Ml. 113^c3 *trachtad le[s]-som a n-í-siu fora t[h]itul* ‘he has here a commentary on its title’, where the referent of *a* ‘its’ must be masc. *o*-stem *salm* ‘psalm’.

The remaining examples are more difficult, since a Latin word was glossed and referred to. The procedure followed here is to use the gender of the corresponding Old Irish word, when known. That this procedure is valid is shown by the well-known example Wb. 6^c10 *is sí regnum immurgu a n-í-siu* ‘this, however, is *regnum*’, where *sí* agrees with fem. *i*-stem *flaith*, although the scribe wrote the Latin *regnum*. A clear example with possessive pronoun is Wb. 27^b25 *bad atrab nábad cuit tadill is hed a atrab didiu a precept et a comal(nad)* ‘let it be a residence: let it not be a passing visit: this then, is its residence, teaching it and fulfilling it’. The Latin glossed is *uerbum Christi habitet in uobis abundanter* ‘may the Word of Christ dwell in you (pl) richly’. The possessive pronoun, as noted by *Thes* (i 674, note d), is feminine, the scribe having translated *uerbum* by Old Irish fem. *ā*-stem *bríathar*. For many Latin words, the Old Irish translation either is unknown or there are several different possibilities. Such cases are not used for the statistics. When, however, an unambiguous choice presents itself, the example is counted, as in Ml. 76^a15 *sechis cen a chomallad ón* ‘that is, without fulfilling it’. Since this glosses *idem repetiuit et bene aduersus eos qui sub Lege fuerunt* ‘he repeated the same thing, and well, against those who were under the Law’, it is clear that the referent of *a* ‘its’ is Latin *lex*, which corresponds to Old Irish masc. *u*-stem *recht*. Thus, this gloss is an example of a possessive pronoun referring to a non-human masculine noun. Following this procedure, all examples

were divided into those with human referents and those with non-human referents and the following table was created:

after poss. pron. <i>a</i>	without <i>-som</i>	with <i>-som</i>
human referent	452 (215/247)	43 (23/20)
non-human referent	43 (11/32) ⁵⁹	0

Table 7: Referents of 3sg. masc. poss. pron. *a*; $p = 0.0387$

Although the referent of *a* is non-human roughly 10% of the time, none of the non-human referents occurs with *-som*. Since $p < 0.05$, we can say that the relative proportion of human referents to non-human referents for the possessive pronoun 3sg. masc. is statistically different depending on the presence of *-som*. This suggests that our hypothesis that *-som* selects for human referents is correct.

We may now turn to the conjugated prepositions and the independent personal pronoun *é*. The same procedure that was applied to the referents of *a* above was used here. The tables below give the results:

after conj. prep.	without <i>-som</i>	with <i>-som</i>
human referent	293 (161/132)	174 (56/118)
non-human referent	40 (18/22) ⁶⁰	3 (2/1)

Table 8: Referents of 3sg. masc. conj. prep.; $p = 0.00002$ ⁶¹

after <i>é</i>	without <i>-som</i>	with <i>-som</i>
human referent	51 (29/22) ⁶²	9 (6/3)
non-human referent	7 (4/3) ⁶³	0

Table 9: Referents of 3sg. masc. pers. pron. *é*; $p = 0.5811$

⁵⁹ Wb. 3^a7, 8^d6, 22, 11^a4, 12^b11, 13^a28, 14^d27, 20^c11, 24^a3, ^b21, 28^c25; Ml. 15^a4, 16^b5, 20^a19, 35^b23, ^c4, ^c20, 21, 37^a6b, 40^a15, ^b1, 44^d2, 45^c9, ^d11, 46^c20, 48^c33, 49^a10, 62^c6b, 76^a15, 77^a12, 89^d18, 93^b10, 108^b8 (bis), 113^c3, 116^c4, 120^c5 (bis), 126^b4a, 128^c3, 129^d8, 131^c13, 136^d1

⁶⁰ Wb. 1^d4, 2^a16, ^b15, 3^b10, 4^d13, 15 (bis), 27, 5^b42, 43, 44, 9^d2, 13, 10^b3, 11^a5, 12^a22, 20^b13, 21^c7a; Ml. 2^b4, ^d1, 20^d4 (bis), 21^a8, ^b2, 30^c9 (bis), 17, 36^b2, 42^b13, ^c2, 11, ^d2, 45^d12, 49^a11, 67^c14, 89^d3, 94^a1, 99^d1, 103^d26, 136^a6

⁶¹ The p -value is calculated without including the 4 (3/1) examples of neuters with conjugated prepositions 3rd person singular. With neuter examples included, $p = 0.0020$, still highly significant.

⁶² Wb. 1^d19, 2^b9, 3^b15, 4^c3, 6^a11, ^d6, 11, 7^c15, 8^a17, 20, 13^a16, ^c3, 14^c35, ^d28, 15^a15, ^b1, 17^d12, 19^c7, ^d9, 20^b5, 22^a7, 23, ^b6, 26^c4, ^d2, 29^c7, 32^b4, 33^a2, ^c3; Ml. 2^b1, 14^d14, 17^b2, 24^d4, 25^b5, 27^b13, 35^b4, 44^d21, 46^c17, 18-19 (bis), 50^d2, 53^a23, 69^c4, 75^c9, 90^b15, 111^c13, 122^b14, 123^a12, ^b4, 129^c19, 131^c14

⁶³ Wb. 3^d15, 5^b28, ^d27, 9^c24; Ml. 25^d12, 27^d22, 54^a32

The conjugated prepositions of the 3rd person singular, given in Table 8, very strongly support the conclusion that *-som* selects for human actors, but the referents of 3sg. masc *é*, given in Table 9, are not conclusive. While the data for *é* do not contradict the hypothesis that *-som* selects for humans, they do not support it. The reason for this is not clear. It is probably significant that *é* mostly occurs in copular sentences, which have a different syntax from other sentences, and it may also be observed that most examples with *é* (27 human examples and 62 non-human ones) were excluded on the grounds that *é* was dependent on a definite predicate (see GOI §815; also MacCoisdealbha 1998: Chapter 2 *passim*) or was accompanied by a subject, which also excludes the possibility of *-som* appearing (see immediately below). Exactly what is going on with the personal pronoun is unclear. I suspect that a complete analysis of copular sentences would resolve any issues in sentences with the independent personal pronoun. In any case, since no examples of *é-som* refer to non-humans, the results do not contradict the hypothesis that *-som* selects for humans.

We may now turn to the case of *notae* attached to verbs. Though the copula has not been analyzed here, all other verbs that could take a 3rd person *nota*, but do not, were collected. Not yet defined, however, is when a 3rd person verb may have a *nota*. During the course of this investigation, it became clear that the third person *notae* have heavy restrictions on when they may appear. The hierarchy proposed above is one of those restrictions. Two further restrictions are that a *nota* may never appear as subject agreement on a verb when an overt subject is present or when the verb is relative with subject antecedent. Thus, the following two sentences are impossible in Old Irish:

- (13) **ad cí-som dúa in mnaí* ‘God sees the woman’.
 (14) **is dúa ad chí-som in mnaí* ‘It is God who sees the woman’.

These restrictions severely limit the number of examples where a *nota* may appear with a third person verb. Therefore, all examples in Milan and Würzburg of third person verbs without an overt subject, without a relative subject antecedent, and without *-side* (see discussion to poss. pron. above) were collected.⁶⁴ Finally, instances of the substantive verb were combined with those of the other verbs, since the substantive verb does not have a syntax significantly different from that of any other intransitive verb and because there are too few examples of the substantive verb for them to produce a meaningful statistic on their own.

after verbs	without <i>-som</i>	with <i>-som</i>
human referent	995 (236/759)	219 (61/158)
non-human referent	99 (23/76) ⁶⁵	2 (1/1)

Table 10: Referents of 3sg. verbs; $p = 0.000001$

Once again, the results are significant, and in this case, very highly significant, as shown by the very low p-value, which indicates that the probability of the data being so distributed by chance is about 1 in 1,000,000. Seen another way, even if one disagrees with the assigning of a number of verbs to the category ‘non-human referent’ and removes 60% of the 99 examples, the results are still statistically significant.

Having now looked at all cases of referents with and without *-som*, we can justifiably say that *-som* is found primarily with human actors and that this fact is independent of the fact that humans appear more often in the data than non-humans.

⁶⁴ Also excluded were those verbs with an infixed pronoun, since it cannot be definitely ruled out that the infixed pronoun might block *-som* in some circumstances that are not yet clear. As it turns out, even including these examples would not have significantly altered the results seen in Table 10.

⁶⁵ Wb. 3^a6, 7, ^b1, ^c21, ^d8, 19, 26, 4^a5, ^b3, 8^d22, 9^c10, 10^c11, 12^a7, ^d27 (bis), 14^d27, 18^b23, 19^c8, 11 (bis), 25^c26, ^d26, 29^a17; Ml. 2^b6 (bis), 14^b4, ^b12, 16^a14, 18^c12 (bis), 19^b11, 22^a10, 24^d10, 13, 19, 22, 25^a5, 26^b10, 27^a7-8, 29^a10, ^c10, 11, 30^c13 (bis), ^d25 (bis), 32^d6, 33^c10, 11, 35^a8, ^d15, 36^d22, 37^d9, 40^a21, 44^b3, ^d2, ^d9, 45^d7, 48^d1-2 (ter), 43^b1, 50^d16, 56^c3, 57^a13, 58^d1, 2, 15, 61^a22, 62^a20, 63^b11, 64^c12, 67^b9 (bis), 11, 72^d9, 73^c3, 74^d12, 75^b13, 76^b4, 80^d8, 87^d4, 88^a17, 96^a6, 101^a6, 107^b6, ^d11, 108^a14, 110^a5-6, 111^b12, 112^a11, 115^d13, 118^b2, 121^a11, 121^d9, 129^c9, 138^a2, 143^c2, 146^b3

No data argue against this hypothesis, and most data strongly support the contention. Any individual exceptions where *-som* refers to a non-human can be looked at in one of two ways. Statistically, these exceptions can simply be dismissed as insignificant. Linguistically, we can argue that *-som* indeed selects for humans, but that certain ambiguities allow it to be extended analogically to non-humans and even very occasionally neuters (i.e. *dó* ‘to him’ : *dó* ‘to it (masc. or nt.)’ :: *do-som* ‘to him’ : X; X = *do-som* ‘to it (masc. or nt.)’).

Given the strength of the correlation of *-som* with human actors, the question naturally arises as to whether the other 3rd person *notae*, fem. *-si* and pl. *-som*, also conform to this pattern. Tables for *-si* follow immediately, with Table 11 showing all the examples of *-si* in Würzburg and Milan.

word preceding <i>-si</i>	human referent	non-human referent
<i>a</i> (fem. poss. pron.)	4 (4/0) ⁶⁶	3 (0/3) ⁶⁷
conjugated prep.	2 (2/0) ⁶⁸	2 (1/1) ⁶⁹
copula + noun and/or adj.	0	0
<i>sí</i> (fem. sg. pron.)	0	0
substantive verb	0	0
verb	1 (1/0) ⁷⁰	2 (0/2) ⁷¹

Table 11: Referents of *-si* in Würzburg and Milan

As can be seen, *-si* is a great deal less common as a *nota*. As a result, meaningful statistics are more difficult to obtain, but the relevant forms from Milan and Würzburg have again been collected, using the same procedures as outlined above for *-som*.

after poss. pron. <i>a</i>	without <i>-si</i>	with <i>-si</i>
human referent	14 (13/1) ⁷²	4 (4/0)
non-human referent	55 (15/40) ⁷³	3 (0/3)

⁶⁶ Wb. 9^d5, 10^a2, 3, 28^d19

⁶⁷ MI. 40^c15, 42^c23, 68^a15

⁶⁸ Wb. 28^b17, ^d22

⁶⁹ Wb. 12^a26; MI. 85^c14

⁷⁰ Wb. 28^d19

⁷¹ MI. 16^c11, 42^c23

⁷² Wb. 3^c7, 9^d31, 32, 11^c8 (bis), 24^d10, 11, 28^b13, 15, ^d21, 31 (bis), 29^d12; MI. 65^d9

Table 12: Referents of 3sg. fem. poss. pron. *a*; $p = 0.0502$

after conj. prep.	without <i>-si</i>	with <i>-si</i>
human referent	8 (8/0) ⁷⁴	2 (2/0)
non-human referent	46 (12/34) ⁷⁵	2 (1/1)

Table 13: Referents of 3sg. fem. conj. prep.; $p = 0.1337$

after verb	without <i>-si</i>	with <i>-si</i>
human referent	13 (11/2) ⁷⁶	1 (1/0)
non-human referent	88 (23/65) ⁷⁷	2 (0/2)

Table 14: Referents of 3sg. verb (feminine); $p = 0.3549$

For *-si*, the results are not significant, though in the case of the possessive pronouns the p-value lies almost exactly on the borderline. To be safe, we can say that the results are non-proven, though the pattern looks quite suggestive. For the prepositions and the verbs, there is no significant correlation, although again the overall pattern appears reasonably suggestive. Most likely, it could be shown that *-si* selects for humans if the sample size were larger, but for now the hypothesis must remain unproven.

We may now turn to the last category of *notae* to be examined, the pl. *-som*.

The data here are more plentiful than for *-si*, as can be seen in the tables below. The data collection and analysis procedures are as before.

⁷³ Wb. 9^b8, 11^c9, 12^d22, 13^b28, 14^b15, 15^a5, 16^d7, 17^a10, 23^a2, 25^b3, 27^b25 (ter), 30^a26, 32^c17; MI. 2^b10, 16^c10, 23^b5, 25^b6 (bis), 31^b17, 36^c20, 39^c31, 42^c13, 43^d27, 46^c14, 57^a12, 66^c9, 67^d2, 9 (bis), 10-11, 14, 15 (bis), 71^b2, 72^b17, 78^b12 (bis), 13, 80^b7 (bis), 82^d9, 85^c14 (bis), 88^b4, 90^b1, 96^a8, 102^a10-11 (bis), ^b9 (bis), 133^c11, 134^c5 (bis)

⁷⁴ Wb. 7^b3, 9^d5, 32, 10^b24, 11^c13, 14^a37, 24^d11 (bis)

⁷⁵ Wb. 2^c4, 5^c17, 13^a11, 14^c21, 43, 15^a4, 5, 16, ^d20, 28^a20, ^c15, 33^c19; MI. 16^c5, 21^c3, 24^d10, 25^c10, 40^c13, 15, 41^d3, 44^d17, 45^c9, 60^a12, 66^d25, 67^d15 (bis), 22, 82^d11, 88^b15 (bis), ^d5, 94^c7, 8, 95^d8, 96^a8, 97^a1, 102^a15, 20, 109^d4, 110^c5, 113^d1, 118^d6, 127^d14, 130^c9, 131^c14, 133^c8, 145^c3

⁷⁶ Wb. 7^b3, 9^d31 (bis), 11^c8, 12, 13 (bis), 24^d11, 28^d25, 28, 31; MI. 127^b5, 129^c8

⁷⁷ Wb. 2^c3, 4^a18, 19, 11^a22, 13^a21, 15^a16, ^d20, 16^d7, 14, 17^c4, 23^a10, 25^c30, ^d4, 26^c3 (bis), 27^a21, ^c8, ^d13 (ter), 28^b30, ^c19, 31^c7; MI. 14^c17, 16^c16, 21^a6, 23^a8, 25^a10, 11, ^b8, 27^c10 (bis), ^d20, 33^a17, 35^c1-2, 36^a38 (bis), ^b1, 2, 6, 37^c11, 40^c14, 42^a15, ^c23, 44^a4 (bis), 46^c15 (ter), 51^a10, ^c16, 53^c9, ^d2, 54^b10, ^d3, 7, 8, 64^d3, 67^b19, 68^d5, 69^b4, 73^c10, 75^b18, 77^d8, 10, 79^c5, 80^b7, 81^c1, 11, 82^d9, 84^b12, ^c16, 85^d8, 87^d6, 90^a9, 92^d4, 93^c1, 101^a8, 103^d11, 105^a8, 108^c15, 113^c5, 114^c2, 121^a17, ^d19, 124^c11, 136^c8, 139^b3

word preceding pl. <i>-som</i>	human referent	non-human referent
<i>a</i> (pl. poss. pron.)	18 (7/11) ⁷⁸	1 (1/0) ⁷⁹
conjugated prep.	88 (33/55) ⁸⁰	2 (1/1) ⁸¹
copula + noun and/or adj.	8 (1/7) ⁸²	1 (1/0) ⁸³
<i>é</i> (pl. pron.)	1 (0/1) ⁸⁴	1 (1/0) ⁸⁵
substantive verb	5 (2/3) ⁸⁶	0
verb	49 (6/43) ⁸⁷	1 (1/0) ⁸⁸

Table 15: Referents of pl. *-som* in Würzburg and Milan

after poss. pron. <i>a</i>	without <i>-som</i>	with <i>-som</i>
human referent	389 (121/268)	18 (7/11)
non-human referent	65 (25/40) ⁸⁹	1 (1/0)

Table 16: Referents of 3pl. poss. pron. *a*; p = 0.4951

after conj. prep.	without <i>-som</i>	with <i>-som</i>
human referent	416 (160/256)	88 (33/55)
non-human referent	77 (27/50) ⁹⁰	2 (1/1)

Table 17: Referents of 3pl. conj. prep.; p = 0.0002

after verb	without <i>-som</i>	with <i>-som</i>
human referent	639 (118/521)	45 (6/39)
non-human referent	116 (10/106) ⁹¹	1 (1/0)

⁷⁸ MI. 24^a4, 27^c4, 30^b18, 48^a11 (*-som* in this example not in *Thes*), 87^a7, 92^a7, 98^c5, 6, 117^d1, 4, 131^c14

⁷⁹ Wb. 1^b15

⁸⁰ MI. 14^d10, 17^c5, 33^a4, 5, ^b3, ^c13, 35^c23, 37^b24, 39^c34, ^d22, 41^a4, 10, 44^a14, 47^a18, ^c4, 50^c8, 54^b30, 54^c18, 26, 30, 31, 57^c5, 62^d5, 63^b4, 65^c3, 16, 67^b19, 74^a2, ^c20, 75^a13, 77^a12, 83^b11, 90^c27, 91^c2, 93^a5 (bis), 94^b3, 97^d15, 98^d6, 101^d9, 102^c8, ^d3, 103^b5, ^c12, 116^d5, 117^d1, 118^d10, 122^d7 (bis), 126^a4-5, 131^c11, 138^c5, 10, 142^b3, 5

⁸¹ Wb. 5^b43; MI. 45^c19

⁸² MI. 24^c1, 30^b2, 76^a5, 6, 92^c13, 124^c2, 125^b9

⁸³ Wb. 13^a23

⁸⁴ MI. 146^a1

⁸⁵ Wb. 27^b8

⁸⁶ MI. 28^b9, 31^a17, 36^a18

⁸⁷ MI. 16^d2, 17^a4, 19^b11, 24^d23, 31^a18, 43^b13, 49^a17, 54^c13, 56^b3, 15, ^c7, 57^a3, 62^c13, ^d6, 75^a7, ^d10, 76^a5, 80^b10, 11, 83^a4, 87^b20, 90^c5, ^d17, 91^a6, 10, 93^d14, 94^c3, 96^b8, 98^c6, 99^d1, 102^b10, ^c7, ^d17, 103^b13, 104^b4, ^c5, 106^d11, 121^d11, 129^d19, 22, 131^c9, 132^a1, 145^d8

⁸⁸ Wb. 6^c31

⁸⁹ Wb. 1^b15, 3^b30, 5^b29, 6^c31, 9^c32, 11^a29, ^b5, 12^b2 (bis), 6, ^c15, 13^a1, 23, ^d4, 15^c10, 16^a12, 17^c24, 26, 20^c3, 24^a5, 27^a24 (quater), 33^c18; MI. 14^c4, 18^b4, 29^d12, 31^d10, 35^d24, 37^b24, 39^a13, ^c22, 45^d14, 46^a23, 50^d17, 51^d3, 9, 59^a15, ^c8, 60^b10, ^d2, 64^c5, 65^c9, 68^b9 (bis), 69^a20, 91^b5-6 (bis), 92^d6, 93^a1, 3, 102^a8, 114^b8, 119^b9 (bis), 122^d4, 126^b15, 129^d4, 132^a5, 138^a2 (bis), ^d6, 139^a8, 145^d6

⁹⁰ Wb. 2^d14, 5^b44, 9^c34, ^d4, 12^a10, ^b2 (ter), 3 (ter), 10, 23, 15^a33, 20^b18, 22^a6, ^b21, 26, 24^a4, 25^c23, 27^a10, 30, ^b20, ^d19, 22, 28^c18, 32^b3; MI. 2^b4, ^d1, 20^d4 (bis), 21^a8, ^b2, 30^a9 (bis), ^c17, 36^b2, 42^b13, ^c2, 11, ^d2, 51^d3, 68^d9, 11, 72^b17, ^c9, 76^d15, 78^b20, 81^c14, 85^d1, 87^b18, 88^c13, 93^b12-13, 94^b23, 96^c13, 98^a4, ^b9, 104^d3, 105^a4 (bis), 108^a13, 119^d10, 121^b8, 12, 123^c8, ^d3, 129^d5, 15, 130^a3, ^b7, ^d15, 131^d7, 145^c7, 8, ^d7, 146^a1, 2-3

⁹¹ Wb. 12^b6, 14^c6, 32, 17^a2, 22^b2, 27^d7, 29^a28, 30^b12, ^c21, 31^d10; MI. 14^c21, 15^c8, 18, 17^b20, 19^c18, 22^a2, ^d6, 23^a13, 19 (bis), 28^a22, ^b6, 31^b9, 33^a3, 35^a21, ^b24, 36^d27, 37^a14, 38^a7, 8, 39^d2 (bis), 7, 42^b11-12, 13, ^c2 (bis), 54^b6, 55^b5, ^d19, 58^a1, 2, 15, 62^b2, 66^c7, 68^d3, 7, 69^a19, 70^b5, 72^b9, 76^d14 (bis), 80^a11, ^d3, 81^c4-6, 84^d2, 87^b4, 12, 92^a16, ^c9, 93^a3, ^d2, 94^c18, 96^c13, 14, 99^c4, 100^a18 (bis), 101^d5 (bis), 102^a24, 106^c3, 108^c8, 109^c9, 111^a4, 10, ^c9, 114^a4, 116^a2, 119^c2, ^d11, 12, 121^b3, 8 (bis), 12 (bis), ^c9, ^d10, 122^a8,

Table 18: Referents of 3pl. verb; $p = 0.0089$

The data for pl. *é* alone (i.e. when not followed by *-som*) were not collected, since the results of *é-som* (two examples evenly split between human and non-human) will not allow any significant results to be obtained. The remaining data are encouraging, since both verbs and conjugated prepositions show the expected outcome. For the possessive pronoun, which does not confirm the hypothesis, there are simply not enough examples with *-som* to obtain significant results.

Now that the data have been presented in full, we can summarize the findings. It was observed above that in verbs with infixed pronouns, a third person *nota augens* always agrees with a human actor to the exclusion of a non-human one. A small number of examples in the glosses serve as the basis for the observation. To buttress the claim, all examples of 3rd person *notae* in the Milan and Würzburg glosses were collected. The distribution of human and non-human referents observed in the *notae* (tables 6, 11, and 15) suggested that they were primarily used to refer to humans and not non-humans. To test that hypothesis, all examples where a 3rd person *nota* could have been used but was not were collected, in order to compare cases where a *nota* was present to cases where it was not. In all cases, categories with a *nota augens* selected for humans much more than the same category without a *nota*, and in most cases, the difference was significant. We may thus regard the hypothesis that the *notae* are primarily associated with humans as true.

With this hypothesis now proven, we may state in full the conclusions presented in this paper. It is an exceptionless fact that a hierarchy governs which *nota augens* may appear in an Old Irish verb with infixed pronoun:

^b2, 123^a4, ^d3, 124^d9, 128^c4, 129^d4, 131^c2, 133^b2, 135^b2, 138^c17, ^d12, 139^a4, 10, 11, 141^b2 (bis), 143^c3, 145^c1, ^d7, 146^a1

(15) 1st person > 2nd person > 3rd person human > 3rd person non-human

That is, a first person *nota* may appear whenever the subject or object is first person. A second person may appear if the subject or object is second person AND if no first person appears as subject or object. A third person *nota augens* may only appear if no first or second person subject or object is present, and such a *nota* will always agree with a human actor to the exclusion of a non-human actor. This latter fact falls out from the fact that the *notae* of the third person almost never refer to non-humans. Further restricting the appearance of the third person *notae augentes* on verbs in general (i.e. not necessarily with an infix pronoun) is that they may not appear with an overt subject or object and are also disallowed on a verb with a relative subject antecedent.

The *notae augentes*, previously largely ignored, present several noteworthy features, two of which have been explored here: they follow a rigid hierarchy in verbs with infix pronouns, and they nearly always refer to humans. Further investigation will probably yield additional discoveries concerning the function of the *notae*. Two promising areas of study are the corresponding forms in British Celtic, where the hierarchy is not exceptionless (and may not even be valid), and the general semantics of the *notae*, since they do not appear to be compatible with the emphatic meaning often assumed for them. Such studies will complement the present one, giving us a fuller understanding of the diachronic development and synchronic function of the *notae augentes*.

Appendix: *notae augentes* outside the glosses

In the main text of this paper, the animacy hierarchy was established in Early Irish with data from the *Thesaurus Palaeohibernicus*, primarily the Milan and Würzburg glosses. Because it is of interest to determine whether the observed distribution of the *notae augentes* was limited to those texts, a thorough search of a number of other Old Irish texts of various ages and genres was undertaken. All examples of *notae augentes* attached to verbs with infix pronouns were collected, subject to the same restrictions as in the main text (see footnote 1). One additional restriction is that examples are not given where the infix pronoun represents the dummy neuter pronoun that gains prominence in Middle Irish. As in the texts from the *Thes*, the texts checked here show no exceptions to the animacy hierarchy. The collected examples are given below (the readings are those of the cited edition except where otherwise noted). As noted above, bold typeface is used to indicate examples with a subject relative antecedent or an overt subject or object.

Aided Óenfir Aífe: ed. van Hamel (1978).

- §9 *na ngénainn-se* ‘I would kill him’
- §10 *corom sloindi-sea* ‘until I name myself’

Audacht Morainn: ed. Kelly (1976).

- l. 18 *ate midiur-sa* ‘I measure them’
- l. 113 *rom érus-sa* (?) ‘I have failed’
- l. 137 *arnach ndernae-su* ‘so that you (sg.) do not do it’

Bethu Brigte: ed. Ó hAodha (1978).

- l. 114-5 *cotu sai[d]-si a lesmathair* ‘her step-mother accused her’
- l. 115 *for racab-si [=fos racab-si] Dubthach* ‘Dubthach left her’
- l. 117 *do-s-bert-si* ‘she gave it (*colg* fem. *ā* ‘sword’)’

The poems of Blathmac: ed. Carney (1964).

- §14 *conda radar-se* ‘so that I might adore him’

Cath Maige Mucrama: ed. O Daly (1975).

- §4 *not *sáraigiub-sa* ‘I will cause you (sg.) injury’
- §12 *not beir-siu* ‘take yourself (sg.)’
- §31 *dom airsed-sa cobair* ‘help might avail me’

§31 *Rí Alban atom chonnaic-se* ‘[it is] the king of Scotland that I am’
§31 *nos beir-siu latt uili* ‘take them all with you (sg.)’

De Chophur in da Muccida: ed. Roider (1979).

- l. 285 *huair atum roethach-sa* ‘because you (sg.) entreated me’
- l. 306 *nom ibu-sai bo* ‘a cow will drink me’
- l. 310 *ibthi-sium bo* ‘a cow drinks him’

Death-tales of the Ulster Heroes: ed. Meyer (1993a).

- Aided Chonchobuir*, version A §7 *not ber-sa* ‘I will carry you (sg.)’
- Aided Cheit Maic Mágach*, version A §7 *nit muirbeb-sa* (MS *-som*) ‘I will not kill you (sg.)’ (not to be restored *nītmairbfet-sa*, as in the edition)

Di Astud Chor: ed. McLeod (1992).

- §26 *dia ndot tí-siu suidiugud* ‘if [its] settlement should come to you (sg.)’

Fianaigecht: ed. Meyer (1993b).

- p. 10 §8 *nim rumart-sa* ‘it (the warrior band) has not betrayed me’
- p. 24 l. 9 *cia dom aim-se in fer liath* ‘though the grey-head attacks (?) me’

Fled Bricrend: ed. Henderson (1899).

- p. 10 l. 5-6 *do n-úthracar-sa* ‘I desire it’
- p. 22 l. 11 *cotom bert-sa brú sóer* ‘a free womb bore me’
- p. 26 l. 6 *cotom gaba-sa* ‘it endows me’
- p. 26 l. 12, p. 27 l. 21 *con[d]om thici-sea* ‘until you (sg.) come to me’
- p. 60 l. 7 *nodon sel-ní* ‘that he would slay us’
- p. 120 l. 9-10 *dot dingbad-su* ‘he would match you (sg.)’

Immram Brain: ed. Mac Mathúna (1985).

- §61 l. 263 *nís n-aicilded-sa* ‘he would not speak to them’

Mesca Ulad: ed. Watson (1983).

- l. 604 *ata connac-sa... triar n-úathmar n-anachnid*
‘I saw them, the three unknown, terrible men’
- l. 671-2 *na *ngaib-sium eill nári* ‘a flush of shame takes him’
- l. 975 *ata gegallar-sa* ‘I will address them’
- l. 998 *dom féci-se* ‘look at me’
- l. 1021 *na ngénaind-seo* ‘I would slay him’
- l. 1047 *nim érus-sa* ‘I will not arise’

Scéla Éogain: ed. Ó Cathasaigh (1977).

- l. 33 *berthi-ssi* ‘she carries it (*lestar n. o* ‘vessel’)’

Scéla Mucce Meic Dathó: ed. Thurneysen (1969).

- §10 l. 8 *dos leicim-se* ‘I cast it’
- §16 l. 1 *dot bérad-su* ‘which would bring you (sg.)’⁹²

⁹² The MS reading is that of the Book of Leinster version of the story. The corresponding verb form found in the innovatory MS Rawlinson B. 512 is *dot béra-su* ‘which will bring you (sg.)’.

Serglige Con Culainn: ed. Dillon (1953).

l. 702 *not sechnaim-sea* ‘I avoid you (sg.)’

Táin Bó Fraích: ed. Meid (1970) and (1967; marked with prefixed †).

§13 l. 131 *náchimm éta-sa* ‘that you (sg.) might not obtain me’

§15 l. 157 *arand álfar-sa* ‘that I will arrange it’

§22 l. 256 *tiag-sa conda tuc-sa* ‘I will go in order that I might bring it’

§23 l. 273 *fos fúar-sa ind ordnaisc* ‘I found it, the thumb ring’

§23 l. 274 *dos roisecht-sa* ‘I kept it’

§23 l. 277 *nis ragbus-[s]a* ‘I did not have it’

§23 l. 306-7 †*ron gabus-[s]a in n-éicni* ‘I had it, the salmon’

§26 l. 307 *dom *foir-se* ‘help me!’

§27 l. 326 *don foir-ni* ‘help us!’

Táin Bó Regamna: ed. Corthals (1987).

l. 76-7 *fortat nesab-sa* ‘I will smash you (sg.)’ (not *-su*, as in the edition)

l. 81-2 *not benab-sa* ‘I will strike you (sg.)’ (not *-su*, as in the edition)

l. 83 *ma nim dergais-[s]i* (for *-se*) ‘if you (sg.) do not ask me for forgiveness’
(not *-siu*, as in the edition)

Talland Étair: ed. Ó Dónaill (2005).

l. 60 *conom marbae-sa* ‘you (sg.) may kill me’ (not *-so*, as in the edition)

l. 132 *at condarc-sa cóemchéile...* ‘I have seen him, the consort...’

l. 229 *nacham bérad-sa óen*fer di Ultaib*

‘that not a single one of the Ulstermen would carry me off’

The following texts were also examined, although no examples of *notae augentes*

with infix pronouns were found:

Baile in Scáil: ed. Murray (2004).

Bechbretha: ed. Charles-Edwards and Kelly (1983).

Compert Con Culainn: ed. van Hamel (1978).

Críth Gablach: ed. Binchy (1979).

Gospel of Thomas: ed. Carney (1964).

*Scéla Mo*sauluim, Cath Cinn Abrad*: ed. O Daly (1975).

Táin Bó Flidais: ed. Corthals (1979).

Uraicecht na Ríar: ed. Breatnach (1987).

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