

2. “Infixes”: Pronouns or Object Agreement?

- Both clitic pronouns and agreement are person & number features on or near a verb, but what do they look like?
- In the French passé composé, if you replace an object with a clitic pronoun, there is object agreement on the verb (which is purely orthographic in the modern language).

(4) a. J'ai mangé les pommes (French)
 1SG have.1SG eat.PERF the.PL apple.PL(F)
 “I’ve eaten the apples”

b. Je les ai mangées
 1SG 3PL.F have.1SG eat.PERF.F.PL

- Deciding whether the infixes are clitic pronouns or agreement is like trying to decide whether they function more like the “les” or the “-es” in (4b).

(5) Old Irish “infixed” (and suffixed) object markers:

Infixed Pronouns

	Class A		Class B		Class C	
	sing.	pl.	sing.	pl.	sing.	pl.
1 st	<i>m^l</i>	<i>n</i>	<i>tam^l</i>	<i>tan</i>	<i>dam^l</i>	<i>dan</i>
2 nd	<i>t^l</i>	<i>b</i>	<i>tat^l</i>	<i>tab</i>	<i>dat^l</i>	<i>dab</i>
3 rd M	<i>a^N</i>		<i>t^N</i>		<i>(d)id^N, (d)^N</i>	
3 rd F	<i>s^(N)</i>	<i>s^(N)</i>	<i>ta^H</i>	<i>ta^H</i>	<i>da^H</i>	<i>da^H</i>
3 rd N	<i>(a)^l</i>		<i>t^l</i>		<i>(d)id^l, (d)^l</i>	

Suffixed pronouns

	singular	plural
1 st	<i>-um</i>	<i>-unn</i>
2 nd	<i>-ut</i>	<i>-uib</i>
3 rd M/N	<i>-i</i>	
3 rd F	<i>-us</i>	<i>-us</i>

2.1 Phonological facts

- Early tests for determining clitic-hood depend on morpho-phonological arguments. Kern (2010) argues that these too point towards a clitic analysis, if we assume a secondary stress on preverbal particles.
 - “Infixes” determine their form (Class A or B) based on the phonological form of the element to their left, suggesting they “lean” in that direction. If we posit a secondary stress for these preverbs, this is a standard Wackernagel position.
 - Low degree of host selection: the “infixes” can attach to a preverb, negation, interrogative particles, or relative markers – i.e. anything which can appear “first” in a standard Old Irish clause.
 - “Infixes” show a high degree of morphophonological idiosyncrasies, however, which is more typical of affixes.

2.2 Syntactic facts

- Recent work (Nevins 2011, Rezac 2010, Preminger 2009) suggests syntactic behavior is a better indicator of clitic vs. agreement status than phonological evidence is.

2.2.1 Floating Quantifiers

- Rezac (2010) proposes a test that agreement alone can’t license floating quantifiers:

(6) a. The students have both gone into the cafeteria, I think.
 b. *Into the cafeteria have.3PL both gone the students, I think. (Rezac 2010: 498)

- Grestenberger (2012:10) suggests this test shows “infixes” are clitic arguments in Old Irish³:

(7) do -s_j -bér fo gin claidib uili_j (Bethu Phátraic, ch.2:1922)
PVB-3PL-give.1SG under mouth sword.GEN all.ACC.PL
'I will put them all to the edge of a sword.'

2.2.2 Semantic vs. syntactic agreement

- Every paper which mentions the possibility of an “infix” occurring with a full NP object mention that there is a tendency (or option) for it to agree with the natural gender rather than the grammatical gender of the NP.
- In (7), the F.SG object appears in a sentence with a N.SG “infix”

(8) a-t_i roilli dia [a sigsin]_i donaib doinib (Ml.51^d12)
PVB-3SG.N deserve.3SG god.NOM.SG 3SG.GEN fearing.ACC.F.SG DEF.DAT.PL person.DAT.PL
'God deserves to be feared by men.'

- Eska (2009) takes this as evidence of the “infixes” being agreement, comparing it to a variety of French where masculine pronouns may double a feminine subject:

(9) [Ma femme]_j, il_j est venue. (Eska 2009:29)
1SG.GEN.F wife.F, 3SG.M.NOM is.3SG come.F
'My wife has come.'

- In the French case, this looks like the 3.M.SG has emerged as a default, while in the Old Irish case, the neuter is only appearing with inanimate objects, suggesting there is some kind of co-reference, just not showing agreement for grammatical gender.
- We could interpret this as both the “infix” and the full NP pointing at the same physical object, rather than being in an agreement relation with each other in the syntactic sense.
- There are similar examples in other languages with grammatical gender that can mismatch to natural gender:

(10) a. Su Majestad suprema (Spanish, Corbett 1991:230)
his majesty.F supreme.F
'His supreme majesty'

b. Su Majestad está contento
his majesty.F is happy.M
'His majesty is happy.'

- Corbett (1991:226) lists personal pronouns as the most likely to shift from matching grammatical gender to matching physical gender:

(11) Schau dir dieses Mädchen an, wie gut sie Tennis spielt (German, Corbett 1991:228)
Look you this.N girl.N at how well she tennis plays
'Do look at this girl, see how well she plays tennis.'

- Eska (2009:29) says that the “lack of gender concord indicated that it is functioning as inflexional material and denotes object agreement”, but I would argue that if “infixes” were agreement, we would expect them to do a better job of agreeing. (See also Thurneysen 1961:266)
- Presumably neuter “infixes” can't occur with animate masculine or feminine objects, so we can't interpret the

³ However, the argument could be made that a null *pro* is licensing the quantifier in any possible example.

neuter as a true “default” form like the French in (9).

- If we think of “infixes” as instead referring to the real life object that is expressed by the full NP, then the switch from grammatical gender to natural gender or animacy can be explained.

2.2.3 Clitic doubling

- Eska (2009:27) makes the argument that “since there can be only one direct object argument in a clause [...] the clitic cannot be an argument in such a structure, but must belong to a different grammatical category: It has evolved from a pronoun to an agreement morpheme.”
- However, clitic doubling is a fairly common phenomenon cross-linguistically, and it tends to look a lot like the situation in Old Irish.
- Developing tests for distinguishing between agreement and clitic doubling is an active topic for research in morpho-syntax. (Kramer to appear, Rezac 2010, Nevins 2011, Preminger 2009)
- Eska (2009:34) does not consider such an analysis, dismissing Alqvist's (1976) suggestion that Old Irish included right dislocation, as is required for a certain type of French clitic doubling on pronouns (among other examples):

(12) le diable les_j met en son pouvoir, eux_j. (Eska 2009:34)
DEF.M devil 3PL put.3SG in his power 3PL.OBJ

- But, dislocation is not a requirement of clitic doubling. Spanish, e.g., has clitic doubling without dislocation:

(13) La_i vi [la foto de los niños]_i (Sanchez 2003:11)
3SG.F see.PAST.1SG DEF.F.SG photo.F of DEF.M.PL child.PL
'I saw the photo of the children.'

- The optionality of “infixes” with full NP objects in Old Irish also suggests that they're clitics, not agreement.
- Depending on the criteria used, only between 2-10% of sentences with an overt NP object where the possibility for it exists, also have an “infix”. (Griffith 2010:10)
- This kind of 'optionality' with agreement is rare, but it's common for clitic doubling. (Corbett 2006:14-15)
- The lack of a default form also points toward a clitic doubling analysis. Preminger (2009) suggests that in cases where an agreement relations fails, a default will surface if it is an agreement affix, but the person marker will disappear if it is clitic doubling. It's impossible to test this now in Old Irish, but the fact that there is no default form, but there are many sentences without any “infix”, this suggests it's not an agreement affix.

2.2.4 Definiteness

- Lucht (1994) notes that sentences containing both full NP objects and “infixes”, the NPs are nearly always definite:

(14) a -t_i indided moisi hua briathraib [inna retu]_i (Ml. 123^b15:²³)
pvb-3SG.N declare.3SG.IMPF Moses.NOM by word.DAT.PL DEF.ACC.PL thing.ACC.PL.M

- This kind of semantic restriction allowing only specific or definite NPs to be doubled is common in clitic doubling languages. (Kramer to appear:9).

2.2.5 Tense invariance

- In proposing syntactic tests rather than phonological ones for determining clitic-hood, Nevins (2011:17,21) mentions that a deciding criterion for affixes is that they change forms depending on tense.
- E.g. for English subject agreement, the regular form for 3SG is -s in the present tense, but -Ø in the past:

- (15) a. She goes.3SG.PRES
 b. She went.3SG.PAST

- Nevins (:18) gives examples of Portuguese clitics showing a relatively high degree of positionally-dependent allomorphy (different forms), but they maintain the same form across tenses.
- Similarly, Old Irish “infixes” also show a high degree of allomorphy, but none of it is dependent on tense.

3. Notae Augentes: Emphasizing particles or pronouns?

- The *notae augentes* are traditionally described as emphasizing particles showing features for person and number.

(16) A paradigm of the *notae augentes*:

The <i>notae augentes</i>		
	singular	plural
1 st	-sa / -se	-nai / -ni
2 nd	-so, -su / -siu	-si
3 rd M/N	-som, -sum / -seom, -sium	-som, -sum
3 rd F	-si	

- They may appear (Thurneysen 1961:252-3):
 - After a verb, agreeing with either an “infixed” object or a subject
 - After a copula+noun/adjective, agreeing with the (subject) person features on the copula
 - After a personal pronoun or conjugated preposition
 - After a noun, agreeing with a possessive pronoun
- Griffith (2010) argues that the *notae* are the true pronouns of Old Irish, and based on this, he decides that the “infixes” must be agreement by default although he finds Eska (2009)'s arguments for this unconvincing.

3.1 Animacy hierarchy

- Griffith (2008b) brings to light a restriction on the distribution of the *notae*, following an animacy hierarchy:

(17) 1st person > 2nd person > 3rd person human > 3rd person non-human

- This means that for any level on this hierarchy, a *nota* can only surface if all the person marking in its agreement domain are equal or below it on the hierarchy.
- A 1st person *nota* may appear with any other person markings:

(18) amal nondub cairim -se (Wb. 23^c12)
 as PVB-2PL love.1SG-1SG
 'As I love you(pl)'.

- A 2nd person *nota* may only appear with 2nd or 3rd person marking:

(19) rob nóib -si (Wb. 19^b12)
 PVB-2PL sanctify.PAST.3SG-2PL
 'which has sanctified you(pl)'.

- A 3rd person *nota* may only appear if both the subject and “infixed” object are also 3rd person:

(20) at beir -som (Ml. 46^a11)
 PVB-3SG say.3SG-3SG
 'He says it'.

- Animacy hierarchies are cross-linguistically very common, though Griffith (2008a) finds this an unconvincing source for the Old Irish facts, for reasons he does not specify, and looks for complicated analogical explanations for it instead.
- According to research on other languages, animacy hierarchies are thought to arise when a probe is trying to agree with multiple conflicting goals. We can see a simpler example of this in French when trying to show gender on an adjective which is applying to a mixed gender group:

(21) a. Pierre et Phillippe sont petits. (French)
 P.M & P.M are small.M.PL

b. Pierre et Marie sont petits.
 P.M & M.F are small.M.PL

c. Madeleine et Marie sont petites.
 M.F & M.F are small.F.PL

- Different languages use different strategies to resolve conflicts of multiple agree like this, but here we can see that a feminine ending can only surface when there is no masculine noun present. It is effectively a M > F hierarchy.
- For person, this is thought to result from a clitic trying to provide positive values for as many features as it can:

(22)

1 st person	2 nd person	3 rd person
+speaker	-speaker	-speaker
+participant	+participant	-participant

- Agreeing with a 1st person argument will let it value two features, which is the best possible; with a 2nd person will give it one feature; and with a 3rd person, it will not provide any values for features.
- Accepting a Multiple Agree analysis for the animacy hierarchy in the notae leaves open many questions about their semantic function and status.
 - This Multiple Agree analysis does not rule out the possibility of the notae being pronouns.
 - It could be that subject and object markers are competing to appear in a single slot, with the one with the most positive feature values winning.
 - Or that the notae emphasize the entire verbal complex, and happen to realize the features of the argument with the most features.
 - According to the numbers provided in Griffith (2008a:5) there is no clear preference for a notae to show the features of a subject over an object, beyond the constraints of the animacy hierarchy.

3.2 Person Case Constraint

- Romance languages (among others) show restrictions based on person and case combinations in clitic pronouns:
- In French, dative and accusative clitics may co-occur:

(23) On me le montera. (French, via Adger & Harbour 2007)
 3SG 1SG.DAT 3SG.ACC show.FUT.3SG
 'They will show it to me.'

- But not if the 3sg is in the dative with a 1sg accusative:

(24) *On me lui montera. (The order of the clitics is irrelevant here.)
 3SG 1SG.ACC 3SG.DAT show.FUT.3SG
 'They will show me to him.'

- In these cases, the dative must be expressed with a preposition:

(25) On me montera à lui.
 3SG 1SG.ACC show.FUT.3SG to him
 'They will show me to him.'

- Similar facts, if explored further, might account for part of the distribution of the notae, particularly when they appear with the deictic clitics, below.

3.3 “Complementary distribution”

- Many of Griffith's (2010) arguments for the pronoun status of the notae revolve around his observation that they are in near complementary distribution with full NPs.
- He mentions the complicating fact that notae may appear after a conjugated preposition, while full NPs may not.
- However, Griffith (:8) conflates linear order with syntactic position, saying that “the notae augentes and deictic clitic set appear in the position where a full NP would appear.”
 - Because the notae cliticize to a verb (or other lexical item), they are not in the same structural position, even if their linear order remains the same (in most cases).
 - Griffith points out that there is an exception to this in genitive phrases, where the nota cliticizes after the first element, while we would not expect a full subject NP to intervene here:

(26) rombo -descipul -som apstal (Wb. 18^{d1})
 COP.3S.PERF-disciple.NOM.SG-3SG apostle.GEN.PL
 'That he was a disciple of apostles.'

- These exceptional cases (e.g. occurring after conjugated prepositions, and in the middle of genitive constructions) ought to be used as crucial clues in the analysis of the notae, not irregularities to be brushed aside.
- Because his approach assumes the notae are pronouns, he does not consider any other explanation for the fact that they cannot co-occur with full NPs.
- It could be that notae can't co-occur with full NPs due to some kind of blocking effect or agreement failure, or it could be that they require a particular type of person features to be to their left to agree with, like the French object agreement, which is only licensed when an object has moved leftwards over the verb:

(27) Je les ai mangées (=4b)
 1SG 3PL.F have.1SG eat.PERF.F.PL

- A thorough morpho-syntactic analysis of the notae should account for all of these facts, and not just the ones where they look like they could be pronouns.

4. Deictic clitics

- These are another class of Old Irish pronouns which show case features, but only appear in the 3rd person.

(28) A paradigm of the deictic clitics:

The deictic clitic set			
	nominative	accusative	genitive
3SM	-side	-adi	-sidi / -ade
3SF	-ade	-sidi / -ade	-ade / -adi
3S	són / ón	són / ón	-sidi / -(a)de
3PL	-(s)idi / -ade	-(s)idi	-adi / -ade

- Griffith (2010:7-8) mentions that these have a near complementary distribution with the notae in that they may appear after verbs, agreeing with a 3rd person subject or object, in copular sentences, and after a possessive pronoun.
- However, the deictic clitics follow an unconjugated preposition, while the notae must follow a conjugated one.
- This suggests that the notae require person features to their left to agree with, while the deictic set do not need to stand in an agreement relationship of this type.
- The deictic clitics may occur with a nota, following it, but due perhaps to the animacy hierarchy or case constraints, only when both subject and object are 3rd person.

(29) do -s ratsat -som -adi (Ml. 44^a14)
PRV-3PL.OBJ applies.3PL.SUBJ-3PL.SUBJ-3PL.OBJ
'They have applied them.'

- It could be that there is a single agreement/emphasizing slot in the verbal complex and one demonstration slot following it, for which various forms compete and block each other.
- However, the notae and deictic pronouns show different behavior in terms of agreeing (as is demonstrated by their behavior following conjugated or unconjugated prepositions).
- A complete analysis of these should be able to account for that fact.

5. Conclusion

- Recent proposals for different statuses of the “infixes” and notae augentes do not hold up when the data is approached with modern theoretical linguistic tools.
- A thorough investigation of the data along these lines is the only way to ensure an analysis that is both consistent with all of the data and its treatment, as well as with recent progress in linguistic theory.
- Such an investigation would need to be precise in determining what kind of morpho-syntactic structures and agreement relations are required by each type of person marker, to be sure that these observations hold across different observed contexts.
- Based on the tests presented here, an approach that starts by assuming the statuses (for clitic pronoun vs. agreement affix) that were described by Thurneysen seems the most likely to be fruitful.
- Despite upholding traditional views of the grammar, such an analysis would likely reveal many new facts about how person and number marking works in Old Irish verbs and prepositions.

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