Advanced Topics in Syntax
Scots -*na*: clitic or affix?

Examination number 5211535

Due date: 20th April 2007

Andrew Weir, undergraduate term paper, University of Edinburgh
Currently (July 2012) University of Massachusetts Amherst
Comments welcome: aweir@linguist.umass.edu

Thanks

To test the grammaticality of the example sentences given in this essay, I have relied on two resources. One is my own intuitions: I am a 20-year-old native Scots speaker who grew up in Dundee and Fife. I have also enlisted the help of two other informants: my parents, both native Scots speakers. My mother spent her childhood in Fife; my father spent the first half of his childhood on the West Coast and the latter half in Fife. Both grew up in urban environments. I am indebted to them for their patience and help in determining the grammaticality of the example sentences in this essay.

Contents

1 Introduction

This essay examines the status of the Scots[1] negative particle *-na*.[2] Scots negates modal verbs using this particle in a similar way to English *-n't*. Although *-na* patterns similarly to *-n't*, in terms of its attachment to the end of modal verbs, there are differences in distribution which suggest that the two particles have different status in the respective languages.[3] An analysis of Eng. *-n't* (Zwicky and Pullum, 1983) suggests that it is an affix (rather than a clitic). This paper will analyse Sc. *-na* with reference to whether it is an affix or whether (as has been traditionally assumed, for example in Macafee (1992)) it is a clitic; it will eventually determine that both phonological and syntactic evidence point to *-na* being best analysed as a clitic.

2 Differences between *-na* and *-n't*

Two negative markers are available in Scots: *-na*, the particle under investigation, and the word *no*. These two markers are comparable in function to Standard English *-n't* and *not*, respectively. In discussions of the syntax of Scots, *-na* is generally stated to be an enclitic. However, this status is usually asserted rather than discussed (see Macafee (1992) or Beal (1997, p. 370), for example). In contrast, modern analyses of English *-n't* incline towards treating it as an affix (Zwicky and Pullum, 1983), or even towards treating forms in *-n't* as separate lexical entries, "negative auxiliaries" (see for example Cormack and Smith (2002, p. 142) and Bresnan et al. (2006, §3.4) for discussion of this approach, and some problems involved with it).

The Scots negative markers are similar but not identical in distribution to their English counterparts. In declarative sentences which have no distinctive stress pattern, *-na* and *-n't* pattern identically in Scots and English:

(1) (a) *she dis eat parritch* 'she does eat porridge'
she disna eat parritch 'she doesn't eat porridge'
(b) *she can eat parritch* 'she can eat porridge'
she canna eat parritch 'she (cannot/can't) eat porridge'

[1] By *Scots* is meant the Germanic variety related to English spoken in Scotland and parts of Ulster, also referred to as *Broad Scots* or *Doric*. Although it shares many features with Scottish Standard English it is not identical to SSE, with a large separate lexis and certain differences of grammar (see Miller (2003) for example). One of these differences is the use of the negative particle *-na*, the subject of this paper.

[2] *-na* is usually pronounced either as [nə] or [ne]. If pronounced [ne] it is often spelt *-nae*, but I have retained the shorter and more traditional spelling *-na* throughout. Both I and my informants generally use the [ne] pronunciation, so where pronunciation has been indicated that form has been used; [nə] may be substituted for any occurence of [ne].

[3] Whether Scots is a "language" or a "dialect of English" is a perennial and essentially political question. I will use the term "language" or "the Scots language" from now on, with its meaning of "speech variety", without intending prejudice to the sociolinguistic status of Scots.

(c) *she will eat parritch* 'she will eat porridge
she willna eat parritch 'she won't eat porridge'

(d) ?*she daur eat parritch* ?'she dares eat porridge'
she daurna eat parritch 'she daren't eat porridge'

(e) *she eats parritch* 'she eats porridge'
she disna eat parritch 'she doesn't eat porridge'

However, differences appear in negative questions which require *do*-support. Specifically, *-na* cannot attach to the *do* (or in Scots *dae*) providing support, unlike in English. Rather, negation must be provided by *no* after the subject-*do* inversion, as shown in (2), (3):

(2) (a) Doesn't she eat porridge?
(b) Does she not eat porridge?

(3) (a) *Disna she eat parritch?
(b) Dis she no eat parritch?

Similarly in tag questions, *-na* cannot remain with the main verb; rather, negation must be provided by *no* after the verb and subject:

(4) (a) She eats porridge, doesn't she?
(b) She eats porridge, does she not?

(5) (a) *She eats parritch, daesna she?
(b) She eats parritch, daes she no?

However, in negative imperatives with explicit subjects requiring *do*-support, *-na* obligatorily attaches to the *do* providing support, just as in English:

(6) (a) Don't you do that!
(b) *Do you not do that!
(c) *Do not you do that!

(7) (a) Dinna you dae that!
(b) *Dae you no dae that!
(c) *Dae no you dae that!

Furthermore, it is only marginally acceptable to place phonological stress on an element containing *-na* in order to stress negation; and it is not really acceptable to have the particle *no* adjacent to a full (i.e. non-cliticised) verb. That is, while all the English examples given in 8 a–8 e are fully acceptable, some of their Scots counterparts 9 a–9 e are not (where CAPITALS indicate phonological stress):

(8) (a) It isn't a good day.
(b) It's not a good day.
(c) It is not a good day.
(d) It is NOT a good day!
(e) It ISN'T a good day!

(9) (a) It isna a guid day.
(b) It's no a guid day. [preferred to 9 a, although both are acceptable]
(c) ?*It is no a guid day.
(d) It is NO a guid day!
(e) ?It ISNA a guid day!

These differences between *-na* and *-n't* would suggest that they are syntactically different, and that *-na* may be better analysed as a clitic rather than as an affix, as *-n't* is. Evidence for this shall be examined below.

3 A preliminary suggestion: obligatory cliticisation of unstressed *no*

Before investigating whether *-na* is (syntactically) best analysed as a clitic or an affix, I would like to make a phonological observation which will inform the following discussion. Let us allow for the moment that *-na* is in fact a clitic, a reduced form of the full negator *no*. If we suppose this, then the phonological facts presented in (9 a–9 e) can be explained. *no*, being a full form, only appears when the negator is being stressed (as in (9 d)); if the negator is unstressed, and is in an environment where cliticisation is possible (i.e. adjacent to a non-cliticised verb), then reduction of *no* to *-na* and the cliticisation of *-na* to the preceding verb is mandatory, resulting in the ungrammaticality of (9 c) (in favour of (9 a) or (9 b)). This also accounts for the marginality of (9 e); if negation is stressed one would expect the full form *no* to remain full rather than to cliticise to the verb.

There does not seem to be any similarly satisfying explanation for these phonological facts if we analyse *-na* as an affix, so this would seem to be preliminary evidence for the treatment of *-na* as a clitic. We will now proceed to analyse the syntactic properties of *-na*.

4 The syntax of clitics and affixes: Zwicky and Pullum (1983)

Zwicky and Pullum, in their discussion of the status of English *-n't*, make the following suppositions about clitics and affixes:

> [w]ord-clitic combinability is largely governed by SYNTACTIC considerations. The conditions governing the combinability of stems with affixes are of quite a different sort: they are MORPHOLOGICAL and/or LEXICAL in character, being concerned with the substructure of a finite set of words. (Zwicky and Pullum, 1983, p. 503, their emphasis)

> All cliticization [...] follows syntax; or, equivalently, no syntactic operations apply after cliticization. On this view, cliticization rules work on surface syntactic structures (Zwicky and Pullum, 1983, p. 504)

From these suppositions, Zwicky and Pullum propose six diagnostics for showing the difference between clitics and affixes. From the first quotation above, four diagnostics emerge (1983, pp. 503–504):

- "Clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selection with respect to their stems." [§4.1]
- "Arbitrary gaps in the set of combinations are more characteristic of affixed words than of clitic groups." [§4.2]
- "Morphophonological idiosyncrasies are more characteristic of affixed words than of clitic groups." [§4.3]
- "Semantic idiosyncrasies are more characteristic of affixed words than of clitic groups." [§4.4]

And from the second quotation, two diagnostics emerge (Zwicky and Pullum, 1983, p. 504):

- "Syntactic rules can affect affixed words, but cannot affect clitic groups." [§4.5]
- "Clitics can attach to material already containing clitics, but affixes cannot." [§4.6]

The body of this essay will apply these diagnostics to *-na* to attempt to determine its status as an affix or a clitic. Section numbers in square brackets refer to the section in this essay where that particular diagnostic is examined.

4.1 Selection of hosts

> The degree of selection between [...] clitics and the words preceding them is low. [... I]nflectional affixes, by contrast, are quite specific in their selections of stems (Zwicky and Pullum, 1983, p. 504)

Zwicky and Pullum (1983, p. 507) point out that English *-n't* is highly selective, requiring to attach to finite auxilliary verbs. Forms such as (10 a–10 d) are highly unacceptable:

(10) (a) *I known't what to do. ("I don't know what to do.")
(b) *I wantn't to do it but I know I have to. ("I don't want to do it...")
(c) *I want ton't do it but I know I have to. ("I want to not do it...")
(d) *For himn't to enjoy himself is odd. ("For him not to enjoy himself is odd.")

Scots *-na* is also highly selective. Examine the Scots versions of the above:

(11) (a) ??A kenna whit tae dae. ("A dinna ken whit tae dae.")
(b) ??A wantna tae dae it but A ken A hiv tae. ("A dinna want tae dae it...")
(c) *A want taena dae it but A ken A hiv tae. ("A want tae no dae it...")
(d) *For himna tae enjye hissel is queer. ("For him no tae enjye hissel is queer.")

Although this would seem to be evidence in favour of an analysis of *-na* as an affix, it is not conclusive for two reasons.

Firstly, Zwicky and Pullum's test only states that clitics *can* exhibit a low degree of selectivity with respect to their hosts; nothing states that clitics *may not* be selective (cross-linguistically, many are selective; consider the French object pronouns *me, te, le, la*..., which require an adjacent verb as their host).

Secondly, Scots *-na*, while selective, has the impression of imposing a lesser degree of selectivity than English *-n't*. Specifically, the requirement that the verb to which it attaches be auxilliary is not as strict as in English. Beal (1997, p. 371) offers a historical perspective on this, stating that "In Scots, as in English, the cliticised[4] negative now tends to be used only with modal and auxiliary verbs. Up until relatively recently, though, other verbs were found with the cliticised negative"; Beal cites the examples of *kenna*, *carena*, *doubtna*, *maksna* 'know-n't, care-n't, doubt-n't, makes-n't'. And indeed, while neither myself nor any informants have any problems rejecting (10 a) or (10 b) outright, the Scots equivalents (11 a) and (11 b) cause more problems. No

[4] As has been pointed out, Beal asserts the status of *-na* without debating it.

informant thinks that they would produce these sentences themselves, but they are judged as considerably more acceptable than the English equivalents (10 a) and (10 b); one reaction was "you wouldn't say that in the [urban] Central Belt, but you could just imagine folk saying it in the Mearns or Kirriemuir [more rural areas, where the Scots spoken is of a more "conservative" variety]".[5] Although this is not conclusive, the fact that Scots *-na* is (slightly) less selective than English *-n't* is a further reason to suppose that the two merit different analyses.

4.2 No arbitrary gaps in host-clitic combinations

> There are no arbitrary gaps in the set of host-clitic combinations—no cases where a PARTICULAR host word fails to combine [with a clitic]. (Zwicky and Pullum, 1983, p. 505)

Zwicky and Pullum argue (pp. 507ff.) that, on the strength of the above statement, English *-n't* is best described as an affix, due to the lack of any forms **amn't* or **mayn't* in (standard) English.[6] These two forms constitute arbitrary gaps, where combining the verbs with *-n't* fails. They also cite the form *ain't* as entirely idiosyncratic — it lacks any positive form, and therefore cannot be the result of a clitic combining with a host.

These arbitrary gaps do not exist in Scots. (As Zwicky and Pullum have done (1983, p. 508), I provide in Table 1 a list of verbs to which *-na* can attach, along with the pronunciations of the negative forms.) *Amna* is a possible form in Scots, although its use is very rare, speakers preferring to cliticise the verb to the subject resulting in the form *A'm no*. I propose, however, that this is phonologically rather than syntactically motivated, due to a desire to avoid two [a] phones in sequence in *A amna* [a amne]. A sentence where material intervenes between *A* and *amna*, such as *A masel amna fashed* 'I myself am not bothered', is acceptable, as is a sentence where the 'emphatic' form of the first person pronoun *I* [aɪ] is used: *I amna fashed* '**I** am not bothered'. *Ain't* has no analogue in Scots, and *may* is not present[7] so the issue of a possible form *mayna* does not arise.

[5] Unfortunately I do not have access to informants from the Mearns or Kirriemuir, or any rural area, although my suspicion is that their reaction would be to likewise place these sentence just on the borderline between marginal and ungrammatical.

[6] *Amn't* certainly exists in Scottish English, although **mayn't* does not.

[7] Possibility is expressed by *micht* (Eng. 'might'), permission by *can*: *It micht rain the morn* 'It may rain tomorrow'; *Ye can stairt nou* 'You may start now' (Miller, 2003, p. 89).

English	Scots affirmative	Pronunciation	Scots negative	Pronunciation
do	dae	[de]	dinna; di'	[dɪne]; [de]
does	dis	[dɪz]	disna	[dɪzne]
did	did	[dɪd]	didna	[dɪdne]
have	hiv, hae	[hɪv, he]	hivna, hinna	[hɪvne, hɪne]
has	haes	[hɪz, haz]	haesna	[hɪzne, hazne]
had	haed	[hɪd, hʌd, had]	haedna	[hɪdne, hʌdne, hadne]
can	can	[kan]	canna	[kane]
could	cuid	[kɪd, kud]	cuidna	[kɪdne, kudne]
may	—	—	—	—
might	micht	[mɪxt]	—	—
shall	sall	[sal]	sallna	[salne]
should	shuid	[ʃɪd, ʃud]	shuidna	[ʃɪdne, ʃudne]
will	will	[wɪl]	willna, winna	[wɪlne, wɪne]
would	wad	[wad, wɪd]	wadna	[wadne, wɪdne]
dare	daur	[dar, dɔr]	daurna	[darne, dɔrne]
must (obligation)	maun	[man, mɔn, mɪn]	maunna	[manne, mɔnne, mɪnne]
must ("I conclude that")	must	[mʌst]	ʔmustna	[mʌstne]
need	—	—	—	—
ought	—	—	—	—
am	am	[am]	amna	[amne]
are	ar	[ar]	arna	[arne]
is	is	[ɪz]	isna	[ɪzne]
was	wis	[wɪz]	wisna	[wɪzne]
were	war	[war, wʌr]	warna	[warne, wʌrne]
"ain't"	—	—	—	—

Table 2: Modals and auxiliaries in Scots. Adapted from Zwicky and Pullum (1983, p. 508).

Notes (all from Miller (2003, pp. 89–90)):
may does not exist, as mentioned above.
sall 'shall' is archaic. *will* is standardly used for all persons and without distinction between volition and futurity.
maun is obsolescent. Positive obligation is normally expressed by *hiv (got) tae*; negative obligation by *hiv no tae* or *canna*. (Lack of obligation is *disna hiv tae*.)
must only carries the meaning "I conclude that", as in *She must hae taen it* "she must have taken it".
need exists in Scots, but behaves as a main verb (*Dis he need tae dae that?* "need he do that?", *A'm needin tae dae that* "I need to do that"), not a modal, so has no *-na* form.
ought does not exist, rather being expressed by *should* or *want*.

4.2.1 *Michtna* and *mustna*

There are however some gaps in Scots. **Michtna* 'mightn't' is missing from my Scots, that of my informants, and the Edinburgh speech investigated by Brown and Millar (1980, pp. 109ff.):

(12) (a) *He micht gang hame* 'he might go home'
(b) **He michtna gang hame* 'he mightn't go home'
(c) *He micht no gang hame* 'he might not go home'

Interestingly, in my idiolect of SSE, *mightn't* is ruled out in this position as well; *He mightn't go home* is ungrammatical for me (*He might not go home* is required), although this is not the case for my informants, for whom *He mightn't go home* is fine.

Brown and Millar (1980, pp. 109ff.) initially propose an analysis of this case where negation is on the main verb and not the modal: MIGHT(NOT(*go_home*)) (pointing out that the sense NOT(MIGHT(*go_home*)) is expressed by *he willna gang hame* in Scots). We can then suppose that in cases of constituent negation *no* may not cliticise to the modal ("will not cross an S boundary" in the terminology of Brown and Millar p. 110).

This analysis works for my idiolect of Scots, where *mustna* is similarly impossible (*must* in Scots bears only the meaning "I conclude that"):

(13) (a) *He must be awfu clever* 'he must be very clever' (= 'I conclude that he is very clever')
(b) **He mustna be awfu clever*
(c) *He must no be awfu clever* (= 'I conclude that he is not very clever')

In this case negation is clearly on the main verb (there is no reading 'I do not conclude that he is very clever'), so cliticisation of *no* would be blocked by the above analysis. (Again, it is interesting to note that in my idiolect of SSE *mustn't* is similarly ungrammatical: *He mustn't be very clever* bears only the meaning 'It is obligatory that he not be very clever' but not 'I conclude that he is not very clever'. For the conclusive reading *He must not be very clever* or the "anglicised" form *He can't be very clever* are required. Again, this is not the case for my informants, for whom *He mustn't be very clever* (= 'I conclude that he is not very clever') is fine.)

However, both the speech investigated by Brown and Millar (1980) and that of my informants *do* have *mustna* (alongside *must no*); all of the sentences below are grammatical:

(14) (a) *He must be awfu clever* (= 'I conclude that he is very clever')
(b) *He mustna be awfu clever* (= 'I conclude that he is not very clever')
(c) *He must no be awfu clever* (= 'I conclude that he is not very clever')

In this case, *-na* clearly *can* perform constituent negation on the main verb. If *-na* can perform constituent negation in *mustna*, there is no semantic reason to rule out *michtna* (Brown and Millar, 1980, p. 110).

I would propose that my idiolect does not allow *-na* (or English *-n't*) to perform constituent negation. In my idiolect, therefore, **michtna* and **mustna* are not arbitrary gaps but rather ruled out for semantic reasons. Furthermore, some Scots dialects do contain both *mustna* and *michtna* (Brown and Millar, 1980, p. 109), and so contain no arbitrary gaps in the *-na* paradigm. However, in the variety examined by Brown and Millar and in the idiolects of my informants, there is no semantic reason to exclude **michtna* given that *mustna* is possible. In these dialects, therefore, **michtna* must be judged as an arbitrary gap.

4.3 No morphophonological idiosyncrasies in host-clitic combinations

> No morphophonological idiosyncrasies exist within clitic groups [... while f]or inflectional formations, morphophonological idiosyncrasies are very common (Zwicky and Pullum, 1983, p. 505)

The morphophonological idiosyncrasies that are being referred to above are pairs in English such as *will—won't* [wɪl -wont], *do—don't* [du-dont], *shall—shan't* [ʃal-ʃant]. On the strength of these morphophonological differences, Zwicky and Pullum conclude that *-n't* is an affix rather than a clitic; if it were a clitic, we would be expecting no or minimal phonological changes, so we would be expecting *will—*willn't* [wɪl-wɪlnt], *do—*doon't* [du-dunt], *shall—*shalln't* [ʃal-ʃalnt].

How does Scots *-na* compare? It certainly exhibits less variability than *-n't*; the Scots equivalents of the above forms are *will—willna* [wɪl-wɪlne], *dae—dinna* [de-dɪne], *sall—sallna* [sal-salne]. There is often a change of [e] to [ɪ], in for example *dae—dinna* [de-dɪne], but this is a regular morphophonological change in Scots; it can be explained by the functioning of the Scots Vowel Length Rule, which states that (in Central Belt Scots) [e] and [ɪ] are "long" and "short" realisations respectively of one single phoneme (Macafee and Aitken, 2003, pp. 154–5), usually spelt <ui> but spelt as <ae> at the end of words such as *dae, tae*.[8]

However, there are some idiosyncrasies; for example the form *winna* [wɪne] alongside *willna* as a negation of *will*. One might be tempted to describe this as a connected speech feature, but it is difficult to think of other instances in Scots where /-ln-/ is realised as [n] (certainly it is difficult to imagine *sallna*, even if it were not archaic, being realised as [sane]). More striking is the existence of a form *di'* [de], as an alternative to

[8]The same phenomenon is presumably responsible for the morphophonological alternation between *dae* [de] 'do' and *dis* [dɪz] 'does'.

dinna, present in sentences such as *A di' ken* [a de kɛn] 'I don't know'. Presumably this form results from deletion of the middle two phones of *dinna* [dɪne]. I shall attempt "special pleading" for this form by noting that it is not available to all speakers (it is to myself and one informant, but not to another), and it is considered non-standard in Scots, insofar as saying such a thing about a non-standardised speech variety is meaningful. However it is an undeniable morphophonological idiosyncrasy.

So there are cases of morphophonological idiosyncrasy in Scots; however, they are less numerous and less "surprising" in their phonological alternation than in the case of English *-n't*. This, again, is evidence that points towards analysing *-na* as more "clitic-like" than English *-n't*.

4.4 No semantic idiosyncrasies in host-clitic combinations

> There are no semantic idiosyncrasies for clitic groups [...] i.e. no cases where the contribution of these clitics to sentence meaning is not identical to the contribution of their associated full forms. Inflectional formations, in contrast, do occasionally show idiosyncratic semantics: the meaning of the whole word is not always composed regularly from the meanings of its parts. (Zwicky and Pullum, 1983, p. 505)

As Zwicky and Pullum (1983, p. 509) point out, analysing *-n't* as a cliticised form of *not* results in this "test" being failed. Their example is the well-known idiosyncratic behavior of *can't* versus *can not*, where *can't do X* has the semantics NOT(CAN(X)) but *can not do X*, in addition to NOT(CAN(X)), can also have the semantics CAN(NOT(X)) (i.e. is able/has permission not to do X). Scots forms have a similar interpretation: *canna dae X* has only the semantics NOT(CAN(X)); *can no dae X* has the semantics CAN(NOT(X)).

It may be possible to explain this behaviour by reexamining my analysis of *na* as applied to *must* and *micht* (section 4.2.1). I pointed out that my idiolect only permits *-na* for sentential negation; constituent negation requires *no*. If we suppose that *-na* is a cliticised form of *no*, then this is reasonable; *no* would only cliticise to a verb when it is negating that verb, as suggested by Brown and Millar (1980, p. 110).[9] In this case, a distinction between *canna* and *can no* falls out naturally without appeal to idiosyncrasy; *canna* is sentential negation while *can no* involves negating the following constituent.

[9] It would obligatorily cliticise, in fact, if the supposition I set out in section 3 is correct. If negation is unstressed, therefore, there is no real analogue to the English sentence *You can not go home* cited in Zwicky and Pullum (1983, p. 509), where *not* is ambiguous between sentential and constituent negation; only the forms *You canna gang hame* (NOT(CAN(*go_home*))) and *You can no gang hame* (CAN(NOT(*go_home*))) exist in Scots. (A form with stressed negation *You can* NO *gang hame!* exists, and *is* ambiguous between the two readings.)

Although this is satisfying, it unfortunately fails in the light of the system of my informants and Brown and Millar's study of Edinburgh speech; these speakers seem to allow *na* to perform both sentential and constituent negation, thereby allowing the form *mustna* (as described in section 4.2.1). None of these speakers allow *-na* to perform constituent negation in the form *canna*; *Ye canna gang hame* only has the reading NOT(CAN(*go_home*)), not CAN(NOT(*go_home*)). In these speakers, therefore, as in English there results a semantic idiosyncrasy from combining *can* and *-na*, as opposed to *can* + *no*.

4.5 Syntax affects affixed words but not host-clitic combinations

> . . . no syntactic operations exist which treat a word combined with [. . .] clitics as a unit. Indeed, given the wide variety of hosts to which [. . .] clitics attach, it is hard to imagine what such an operation would be like. But inflected nouns, verbs, adjectives, and adverbs are of course regularly treated as units by syntactic operations. (Zwicky and Pullum, 1983, pp. 505–506)

4.5.1 Subject-Auxiliary Inversion

Zwicky and Pullum (1983, p. 506), in analysing English *-n't*, examine the workings of the syntactic operation Subject-Auxiliary Inversion (SAI), considering the following sentences:

(15) (a) You have not been there.
(b) You haven't been there.
(c) Haven't you been there?
(d) Have you not been there?
(e) *Have not you been there?

Zwicky and Pullum explain the ungrammaticality of (15 e), as opposed to (15 c, 15 d), by analysing *-n't* as an affix. In that case, SAI can operate on (15 b) to produce (15 c), and can operate on (15 a) to produce (15 d) — but there is no possible source for SAI to produce (15 e), so it is not generated. If *-n't* were to be analysed as a clitic — a reduced form of *not* — then (15 c) would not be possible; if syntactic operations cannot treat a word-clitic combination as a unit, then SAI would not be able to act on (15 b) to generate (15 c). On this basis Zwicky and Pullum conclude that *-n't* is best analysed as an affix rather than a clitic.

What is the situation in Scots? Below are the Scots equivalents of the above English sentences.

(16) (a) ?*Ye hiv no been there.[10]
(b) Ye hivna been there.
(c) *Hivna ye been there?
(d) Hiv ye no been there?
(e) *Hiv no ye been there?

This set of sentences provides the strongest evidence yet for treating *-na* as a clitic and reduced form of *no*. Just as would be expected under this analysis, SAI cannot operate on the form *hivna*. Rather, it must operate only on *hiv*, inverting subject *ye* and verb *hiv*. That is, (16 d) is derived through SAI from (16 a), but (16 c) cannot be derived from (16 b), as *hivna* is a word-clitic combination. In this analysis, (16 b) is derived from (16 a) by (phonologically obligatory) cliticisation of *no.* In (16 d), after SAI is performed *no* is left without a verb to cliticise to, and therefore remains as its full form.

Assuming that the same syntactic operation (SAI) is involved, this analysis works equally well for tag questions, as shown below:

(17) (a) You have been there, haven't you?
(b) You have been there, have you not?
(c) *You have been there, have not you?

(18) (a) *Ye hiv been there, hivna ye?
(b) Ye hiv been there, hiv ye no?
(c) *Ye hiv been there, hiv no ye?

Again, SAI is capable of acting on English *haven't* but not Scots *hivna*.

4.5.2 Negative imperatives with overt subjects

So far this is satisfying. However, there is one case where Subject-Auxiliary Inversion appears to operate on a verb-*na* combination: negative imperatives. In Scots, as in at least some dialects of English, subjects can optionally remain in negative imperatives. However, in this case, SAI *does* appear to operate on the *dae* + *na* combination *dinna*, as the following sentences show:

(19) (a) Dinna be stupit! 'don't be stupid!'
(b) Dinna you be stupit! 'don't (you) be stupid!'

[10] Recall that I suggest in section 3 that this form is only ungrammatical for phonological reasons. I suggest that it is syntactically valid and is in fact the source of all the following (grammatical) forms.

(c) *Dae you no be stupit! *'do you not be stupid!'

How is this to be explained? One explanation is that this is not in fact SAI, but rather a phenomenon explored by Zanuttini (1996). Zanuttini suggests that in English there are two options open for syntactic negation: a functional projection NegP, which Zanuttini claims obligatorily selects a maximal projection whose head bears tense features as its complement and which is headed in English by the element *n't*; and adverbial negation provided by *not*. In Zanuttini's analysis, English imperatives are negated by a NegP, which must be generated above the CP containing the imperative verb in order for it to select that CP (which Zanuttini claims bears the tense features for imperatives) as its complement (1996, pp. 198ff.). This explains why, in English, *Don't you do that!* is possible while **Do you not do that!* is not (this sentence would represent lowering of the negative element, as imperative negation is generated above the CP containing *you do that* in this analysis).

Positing a similar syntactic model for Scots solves our problem. If negation is in fact generated above the subject in imperatives in the form of a NegP, then the subjects and auxiliaries are not in fact inverted in imperatives as they are in questions. What is happening is not SAI; there is therefore no syntactic operation on a word-clitic combination in negative imperatives and no barrier to analysing *-na* as a clitic. I propose that both NegPs and adverbial negation are headed by *no* in Scots, and that the *no* cliticises (where possible) when it is the head of a NegP. This follows from my argument in section 3 that a sentence such as ?**You dae no dae that* is (phonologically) ill-formed. This explains the ungrammaticality of **Dae no you dae that!*; the NegP in this case is headed by *no* which obligatorily cliticises (for phonological reasons) to the *dae* providing *do*-support, giving *Dinna you dae that!* It may also explain the proposed distinction between sentential and constituent negation in at least my idiolect (as discussed in sections 4.2.1 and 4.4); sentential negation is provided by a NegP and so is realised by *-na* (as in *Ye canna gang hame*), while constituent negation is provided by adverbial negation and so is realised by *no* (as in *Ye can no gang hame*).

4.6 Clitics can attach to clitics, affixes cannot

> [Clitics] CAN attach to material already containing clitics, though [...] affixes cannot (Zwicky and Pullum, 1983, p. 506)

Zwicky and Pullum (1983, pp. 506–507) classify *-n't* as an affix by noting that, while one can have a clitic attaching to material already containing clitics in English (in this case *'d* and *'ve*, clitic forms of *would* and *have*):

(20) I**'d've** told you if I'd seen you.

. . . *-n't* cannot attach to material already containing clitics:

(21) *I**'dn't** wanted to go but he convinced me.

The equivalent sentences in Scots are below:

(22) (a) A**'d'v** telt ye if A'd seen ye.
(b) ?A**'dna** wantit tae gang but he convinced me.

I find (22 b) marginal; however, my informants accept it without demur (while rejecting (21)). It would seem, therefore, that in the speech of my informants at least *-na* can attach to clitics, suggesting that it is itself a clitic rather than an affix.

5 Conclusion

From the phonological and syntactic evidence examined above, I conclude that, contrary to the analysis of English *-n't*, Scots *-na* is best analysed as a clitic — a reduced form of the negator *no* — rather than as an affix.

There is some counterevidence to this view, as seen in sections 4.1, 4.2 and 4.4 in particular. The evidence in these sections imply that *-na* is an affix that nevertheless behaves in a more "clitic-like" fashion than English *-n't*. It is possible that this is indicative of language change in progress. Is Scots *-na*, whether under the influence of English or independently, moving towards reanalysis as an affix, following the same path as English *-n't* (Zwicky and Pullum, 1983, p. 504)? One of my informants initially expressed doubts about the ungrammaticality of sentences such as *Hivna ye seen her?*, suggesting that they might be clumsy but grammatical. However, when the question asked about these sentences was changed from "Do these sentences sound acceptable to you in Scots?" to "Would you produce these sentences if you were speaking Scots?", the answer was unambiguously "no, I would not produce them". That these sentences were judged marginally acceptable as input (but not as output) may reflect a general tendency to attempt to interpret utterances sympathetically (in order to make sense of them), or it may indicate that influence from English forms such as *Haven't you seen her?* is becoming very strong in Scots. It would be interesting to examine the speech of young Scots speakers to determine whether sentences such as *Hivna ye seen her?* are starting to be produced in the native-speaker community.

However, the above notwithstanding, there is very strong phonological and syntactic evidence to support the clitic analysis. I have discussed, for example, the unacceptability of sentences with unstressed *no* such as ?**A hiv no seen her* in section 3, and (in section 4.5) the fact that Subject-Auxiliary Inversion does not act on modal-*na* combinations, ruling out such sentences as **Hivna ye seen her?* in favour of *Hiv ye no seen her?* In the light of this evidence, I conclude that *-na* is a clitic.

References

Beal, J. (1997). Syntax and morphology. In Jones, C., editor, *The Edinburgh History of the Scots Language*, chapter 9, pages 335–377. Edinburgh: Edinburgh University Press.

Bresnan, J., Deo, A., and Sharma, D. (2006). Typology in variation: A probabilistic approach to *be* and *n't* in the Survey of English Dialects. Unpublished manuscript, University of Stanford.

Brown, K. and Millar, M. (1980). Auxiliary verbs in Edinburgh speech. *Transactions of the Philological Society*, pages 81–133.

Cormack, A. and Smith, N. (2002). Modals and negation in English. In Barbiers, S., Beukema, F., and van der Wurff, W., editors, *Modality and its Interaction with the Verbal System*, volume 47 of *Linguistik Aktuell/Linguistics Today*, pages 133–164. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Macafee, C. (1992). Characteristics of non-standard grammar in Scotland. Web page. Retrieved April 2, 2007 from `http://www.abdn.ac.uk/~enl038/grammar.htm`.

Macafee, C. and Aitken, A. J. (2003). The phonology of Older Scots. In Corbett, J., McClure, J. D., and Stuart-Smith, J., editors, *The Edinburgh Companion to Scots*, chapter 7, pages 138–169. Edinburgh: Edinburgh University Press.

Miller, J. (2003). Syntax and discourse in Modern Scots. In Corbett, J., McClure, J. D., and Stuart-Smith, J., editors, *The Edinburgh Companion to Scots*, chapter 5, pages 72–109. Edinburgh: Edinburgh University Press.

Zanuttini, R. (1996). On the relevance of tense for sentential negation. In Belletti, A. and Rizzi, L., editors, *Parameters and Functional Heads: Essays in Comparative Syntax*, Oxford Studies in Comparative Syntax, chapter 5, pages 181–208. Oxford: Oxford University Press.

Zwicky, A. M. and Pullum, G. K. (1983). Cliticization vs. inflection: English N'T. *Language*, 59(3):502–513.