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David Basilico

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Abstract

Noun incorporation in Frisian (Dyk 1997) is unusual because it shows certain restrictions that are not seen in other languages with noun incorporation, such as Mohawk and Chukchi. In addition, while others argue that noun incorporation is indeed possible in Germanic (see Booij 2009 for Dutch, Barrie and Spreng 2009 for German), Frisian is unusual even with respect to Germanic in allowing noun incorporation in finite clauses. In this paper, I show that noun incorporation in Frisian should be analyzed as synthetic compounding, with the compound licensed by a null verbal head. It is the presence of this head that accounts for the unusual restrictions. Not only does this head explain the distribution of noun incorporation, it also explains the distribution of detransitivization. I show that there are parallels between noun incorporation and synthetic compounding in English with *-ing*. An important consequence of this analysis is that it allows us to treat this phenomenon in Frisian as a more typologically appropriate instance of compounding rather than as canonical noun incorporation found in polysynthetic languages.

Noun Incorporation in Frisian

David Basilico*

1 Introduction

Though the phenomenon of noun incorporation has been explored in a wide variety of polysynthetic languages, some recent investigations have claimed that such a phenomenon exists even in more extensively studied Germanic languages (Weggelaar 1986 and Booij 2009 for Dutch, Dyk 1997 for Frisian, Barrie and Spreng 2009 for German). In these cases, a noun and a verb can form a tight unit with properties similar to that seen in typical noun incorporation. For example, a verb and a noun phrase that corresponds to its direct object or theme can form a unit, but not a verb and a noun phrase that corresponds to a subject or agent.

A large body of research has focused on the distribution of noun incorporation with respect to which grammatical functions and/or thematic roles allow incorporation. As has been widely observed, it is themes or direct objects which canonically incorporate; agentive subjects of transitive verbs rarely do (Mithun 1984, Baker 1988, and many others). However, there are restrictions on incorporation in Germanic that are not seen in canonical instances of incorporation. In his excellent and detailed study of noun incorporation in Frisian, Dyk (1997) shows that incorporation can occur with finite verbs in main clauses (a situation which is unlike other Germanic languages) and notes a number of other interesting restrictions: for example, incorporation of direct objects does not occur with stative verbs, eventive verbs with non-animate non-agentive subjects, and even with direct objects that occur as the ‘subject’ of a small clause.

In this paper, I concentrate on noun incorporation in Frisian, and show that incorporation in this language is more akin to synthetic compounding in related Germanic languages such as English, though with more structure than a quick inspection of the surface phenomenon would suggest. Noun incorporation in Frisian is not simply the compounding of a verb and a noun but includes an additional syntactic head, which I notate as v_{ACT} , that is responsible for both licensing the noun/verb compound as well as giving the characteristic aspectual value and external argument properties of the construction. Thus, the structure of ‘noun incorporation’ in Frisian is as in (1).

$$(1) [{}_{vP} v_{ACT} [N V]]$$

In this structure, a noun and verb merge to form a compound, which then merges with a v_{ACT} head that licenses the compound.

Analyzing Frisian noun incorporation in this way reveals parallels between this kind of main clause compounding in Frisian and examples of compounding in English nominals formed with *-ing* in English, such as *truck driving*, as analyzed in Borer (2013). Thus, we assimilate this phenomenon to a more typologically appropriate instance of synthetic compounding rather than the prototypical case of noun incorporation as seen in polysynthetic languages.

2 Incorporation in Frisian

While Germanic languages are not known for incorporation, there are several studies which posit that noun incorporation is possible in Dutch, Frisian and German (Weggelaar 1986, Dyk 1997, Booij 2009, Barrie and Spreng 2009). I will focus here on Frisian, as Dyk (1997) is a particularly detailed study that discusses the relationship between noun incorporation, argument structure and the lexical aspect of verbs. Dyk (1997) introduces the following contrast.

- (2) a. *Wy wolle de messen slypje.*
we want the knives sharpen

*I thank Siebren Dyk for discussion of data and Bettina Spreng for discussion of the noun incorporation in German. This paper has also benefitted from discussions with audiences at the LSA 2015, PLC 39 and CGSW30.

- ‘We want to sharpen the knives.’
 b. *Wy wolle messeslyppje.*
 we want knife-sharpen
 ‘We want to sharpen knives.’

In (2a) we see that the noun phrase and verb form separate units, with the noun occurring with the definite determiner *de*. In (2b), the noun lacks a determiner and is written in standard Frisian orthography as one word. Not only does the noun lack a determiner in (2b), it also has a special phonological form: [mɛsə]. This form is neither the singular form [mɛs], nor is it plural form [mɛsən], and is a form that only occurs in compounds.

Dyk (1997) shows that the V+N combination behaves as a single syntactic unit. Frisian has underlying SOV order that is obscured in root clauses by the ‘verb second’ phenomenon.

- (3) a. *Hja size dat wy de messen slyppje.*
 they say that we the knives sharpen
 ‘They say that we sharpen the knives.’
 b. *Wy slyppje de messen.*
 we sharpen the knives
 ‘We sharpen the knives.’
 c. **Wy de messen slyppje.*
 we the knives sharpen
 ‘We sharpen the knives.’

In sentence (3a), in the subordinate clause, the verb follows the object; here, the verb cannot raise to the second position. However, in (3b), we see that the verb precedes the object, showing that the verb has raised to second position. Verb second is obligatory in root clauses, as seen in (3c).

Given the ‘verb second’ phenomena, when the object is incorporated, the object appears to the right of the verb, after the subject.

- (4) a. *Wy messeslyppje.*
 we knife-sharpen
 b. **Wy slyppje messe.*
 we sharpen knife

The example in (4b) shows that the special form of ‘knife’ cannot be stranded by verb second but must be moved along with the verb. It is reasonable to conclude that in (4a), the noun and the verb form one syntactic head that then moves together.

Another piece of morphological evidence for incorporation comes from the special form the noun takes in certain cases when it is plural. Above, I have mentioned that the form of the incorporated noun in some instances is different from both the singular and the plural. Dyk (1997) notes that Frisian has two productive plural forms, an *-s* form and an *-en* form. Those nouns which take *-s* as their plural appear only in the singular form when they are incorporated.

- (5) *Heit jerappel/*jerappels dolt de hiele dei.*
 father potato/potatoes digs the whole day
 ‘Our father is digging potatoes the whole day.’

Nouns that take *-en* plurals are different; they can appear in the incorporation structure either in their singular form or in a special form with *-e-*, as discussed above with *messe* ‘knife’. As with the *-s* plurals, the *-en* plural is not allowed.

- (6) *Heit byt/bite/*biten wjuddet de hiele dei.*
 Father beet/beet-e/beets weeds the whole day
 ‘Father weeds beets the whole day.’

The incorporated nominal is also understood as number neutral and often non-referential.

3 The Distribution of Noun Incorporation in Frisian

As many previous studies have demonstrated, not any (generic) noun can incorporate; prototypically, direct objects/themes freely incorporate while agentive subjects rarely do (Baker 1988, Mithun 1984). Frisian shows similar restriction; noun incorporation is not possible with unergative intransitive or agentive, transitive subjects.

- (7) a. *De boer wjuddet de biten.*
 the farmer weeds the beets
 b. **Boerwjuddet de biten.*
 ‘The farmer weeds the beets.’
- (8) a. *De man kuieret.*
 the man walks
 b. **Man-kuieret.*
 Man-walks.

And as seen in the examples provided above, direct objects can incorporate. So in this way, Frisian seems to follow the typical pattern.

However, in other respects Frisian noun incorporation seems much more limited. First, somewhat surprisingly, unaccusative verbs do not allow their sole argument to incorporate.

- (9) a. *De man falt.*
 the man falls
 b. **Manfalt.*
 man-falls
- (10) a. *De man stjert.*
 the man dies
 b. **manstjert*
 man-dies

If the sole complement of the unaccusative verb is merged as a complement, we would expect it to pattern with the direct objects of transitive verbs, yet these unaccusative ‘deep’ objects do not incorporate in Frisian.

Now, it has been reported in the literature that languages do vary with respect to the possibility of noun incorporation. Baker et al. (2005) report that while incorporation of the sole theme/patient argument of an unaccusative verb is possible in Mohawk and Southern Tiwa, typically such nouns do not incorporate in Mapudungun. They relate the lack of incorporation in Mapudungun to the Extended Projection Principle and the requirement that a clause must have a subject. When the theme/patient argument of the unaccusative verb incorporates, there is no element to check the person, number and gender features of INFL; here we see the typical EPP effects requiring that the sentence have an element in subject position. If there is a pleonastic element that can appear in subject position to check the person, number and gender features, then incorporation is possible in Mapudungun.

Given Baker et al.’s (2005) analysis of the variation in incorporation with respect to incorporation and unaccusative verbs, we might consider that these sentences are ungrammatical because there is no element in subject position. However, Frisian does have impersonal passive constructions, which usually allows an unergative verb to appear with an pleonastic subject.

- (11) a. *Der wurdt kuiere.*
 there is walked
 b. *Der wurdt iten.*
 there is eaten

However, even if we put the unaccusative verb *stjerre* ‘die’ in the impersonal passive with an incorporated noun, the sentence is ungrammatical, as seen in (12) (Siebren Dyk, personal communication).

- (12) **Der* *wurdt* *manstoarn*.
 there is man-died

Importantly, the ungrammaticality of (12) cannot be attributed to a constraint that prohibits impersonal passives with noun incorporation; certain transitive verbs can undergo impersonal passivization, and in these cases, the noun can incorporate.

- (13) *Der* *wurdt* *apeliten*.
 there is apple-eaten

In addition to the lack of incorporation with unaccusatives, another important difference concerns the sensitivity of noun incorporation in Frisian to the lexical aspect of the verb phrase. It appears that incorporation requires verbs that are both dynamic and durative. Thus, activity verbs such as ‘push’ readily allow incorporation.

- (14) a. *Gurbe treau* *de* *karre* *oerenlang*.
 Gurbe pushed the cart for hours
 ‘Gurbe pushed the cart for hours.’
 b. *Gurbe karretreau* *oerenlang*.
 Gurbe cart-pushed for hours

Accomplishment verbs such as ‘eat’ and ‘drink’, since they allow a durative interpretation, also readily incorporate as well.

- (15) a. *Gurbe iet* *oerenlang* *jerappels*.
 Gurbe ate for hours potatoes
 ‘Gurbe ate potatoes for hours.’
 b. *Gurbe jerappeliet* *oerenlang*.
 Gurbe potato-ate for hours

With punctual achievement verbs such as *stekke* ‘stab’ or *deadzje* ‘kill’, we might not expect incorporation, since these verbs are not durative. However, in the incorporation construction, these verbs are no longer interpreted punctually; Dyk (1997) writes that “we see that incorporation with these kinds of verbs necessarily get an iterative interpretation” (102).

- (16) *Bonne knyndeadet* *oerenlang*.
 Bonne rabbit-kills for hours.

Stative and achievement verbs do not allow their direct object noun phrase to incorporate.

- (17) a. *De kealkop* *hatet* *negers*.
 The skinhead hates negroes
 b. **De kealkop* *negerhatet*.
 the skinhead negro-hates
- (18) a. *Loltsje kin* *it* *andert* *net* *witte*.
 Loltsje can the answer not know
 ‘Loltsje cannot know the answer.’
 b. **Loltsje* *kin* *net* *andertwitte*.
 Loltsje can not answer-know
- (19) a. *Loltsje fynt* *gûne* *tusken* *de* *fallen* *blêden*.
 Loltsje finds guilder between the fallen leaves
 ‘Loltsje finds a guilder between the fallen leaves.’
- (19) b. **Loltsje* *gûnefynt* *tusken* *de* *fallen* *blêden*.
 Loltsje guilder-finds between the fallen leaves.

- (20) **Amy jildferlear.*
 Amy money-lost
 ‘Amy lost money.’

Aspectual restrictions on noun incorporation have not been discussed in other languages with noun incorporation; in other polysynthetic languages we see that the stative and achievement verbs do permit incorporation. Compare (17)–(20) above to the following sentence form polysynthetic languages cited in Baker (1988). The examples in (21) are from Onondaga (Woodbury 1975), in (22) and (23) from Mohawk (Postal 1962).

- (21) a. *Pet wa²-ha-hwist-ahtu²-t-a²*
 Pat PST-3MS-money-lost-CAUSE-ASP
 ‘Pat lost money.’
 b. *Pet wa²-ha-htu²-t-a² ne² o-hwist-a²*
 Pat PST-3MS-lost-CAUSE-ASP the PRE-money-SUF
 ‘Pat lost the money.’
- (22) a. *Yao-wir-a² ye-nuhme²-s ne ka-nuhs-a*
 PRE-baby-SUF 3FS/3N-like-ASP the PRE-house-SUF
 ‘The baby likes the house.’
 b. *Yao-wir-a²a ye-nuhs-nuhwe²-s*
 PRE-baby-SUF 3FS/3N-house-like-ASP
 ‘The baby likes the house.’
- (23) *wa²-k-hwist-ache²ni² [Harry ha-hwist-ahtu²tihna²]*
 AOR-1SS-money-find Harry 3M-money-lost.PAST
 ‘I found the money that Harry lost.’

Another interesting feature of noun incorporation in Frisian is that there are restrictions on the thematic role of the subject noun phrase. Dyk (1997) shows that only when the subject is a volitional actor is direct object incorporation allowed.

- (24) a. *It bern kleuret it plaatsje*
 the child colors the picture
 ‘The child colors the picture.’
 b. *It bern plaatsjekleuret.*
 The child picture-colors
- (25) a. *De ûndergeande sinne kleuret it hûs*
 the setting sun colors the house
 ‘The setting sun colors the house.’
 b. **De ûndergeande sinne hûskleuret.*
 the setting sun house-colors.

While (24) with the volitional actor allows for incorporation, similar sentences in (25) with a corresponding inanimate causer and/or instrument disallow incorporation. Restrictions such as this with respect to the thematic role of the subject have not been reported in the literature on incorporation.

Fourth, when the direct object is the ‘subject’ of a small clause complement to the verb, incorporation is also impossible. This restriction manifests itself in several different ways. Thus, the object noun phrase of a resultative structure cannot incorporate. The sentences in (26) show cases with an ADJP as the resultative constituent, and the sentences in (27) show a PP resultative.

- (26) a. *Hy bakt de bôle brún.*
 he baked the bread brown
 ‘He baked the bread brown.’
 b. **Hy bôlebakt brún.*
 he bread-bakes brown

- (27) a. *Beppe set de boeken op it rim.*
 Grandmother put the books on the shelf
 ‘Grandmother put the books on the shelf.’
 b. **Beppe boekset op it rim.*
 Grandmother book-put on the shelf

Now, it is clear that this lack of incorporation from a small clause subject is a language specific restriction, as other languages do allow incorporation from this position. Kozinsky et al. (1987) give the following example from Chukchi.

- (28) a. *ətləg-e təkəčʔ-ən utkučʔ-ək pela-nen*
 father-ERG bait-ABS trap-LOC leave-3SG/3SG
 b. *ətləg-en utkučʔ-ək təkəčʔə-pela-gʔe*
 father-ABS trap-LOC bait-leave-3SG
 ‘Father left the bait at the trap.’

Here, the example in (28a) seems similar to the examples with ‘put’ in Frisian, in which the direct object comes to be at some location, in this case ‘the bait’ comes to be ‘at the trap’. Thus, a small clause analysis is likely for this case, with ‘the bait’ acting as the small clause subject. But as we see in (28b), the direct object can be incorporated in these cases.

4 Incorporation as Synthetic Compounds with a Null Activity v Head

It is clear that a head movement approach to Frisian noun incorporation does not explain the various restrictions that Dyk (1997) reports for the construction. The alternative that I explore is that incorporation is an instance of synthetic compounding, with the N and V compounded together as in the English nominal structure ‘truck driving’. However, some have argued that such compounds in English need to be licensed by a higher head, such as Borer (2013). I will argue the same for Frisian. In this case, I posit that there is a special ‘activity’ verb head that licenses the [N V] compound and also brings along its own special semantic and syntactic properties that will explain the restrictions on incorporation that we have seen above.

Before fleshing out and supporting my particular analysis, I would like discuss the analysis of synthetic compounds in English as articulated in Borer (2013), since the analysis here draws heavily from her proposals. As is well-known (see also Lieber 2004, Harley 2011, McIntyre 2009), synthetic compounds in English are possible in *-ing* and *-er* nominals, but not as bare N V compounds as the main predicate of a clause.

- (29) a. The truck driver carried the boxes into the warehouse.
 b. Truck driving is a dangerous job.
 c. *I will truck drive tomorrow.

Adapting a proposal of Ackema and Neeleman (2004), Borer (2013) gives the following constraint on compounding.

- (30) N-V compounds (English, Dutch, Hebrew) must be licensed by further morphological processes of compounding or derivation.

With ‘truck driver’ and ‘truck driving’, the N V compound [truck drive] is licensed by the further affixation of *-er* and *-ing*, respectively. In the case of (29c), the compound is not licensed because there is no further derivational morphological process.

We can say the same for Frisian main clause incorporation, if we assume that there is additional affixation to license the compound. Such an additional affix is not overt; however, we can detect its presence semantically from the aspectual restrictions noted, as well as the restrictions on the external argument when there is incorporation. I propose that this null verbal affix is associated with an atelic, activity aspectual interpretation, as well as requiring an agentive external argument. Thus, the external argument restrictions and the aspectual restrictions are tied to the presence of

the null affix that also licenses the incorporation, now understood as compounding. Of course, given that the attachment of the null activity verb head is quite productive, it appears on the surface that noun incorporation involves simple head-movement of the direct object onto the lexical verb. However, the lack of noun incorporation with causer subjects, as well as the aspectual restrictions seen, shows that incorporation of the noun into the verb isn't freely available; the [N V] unit must be bound to the v_{ACT} . Since only certain kinds of events are compatible with the v_{ACT} head, incorporation will be limited to those verbs which are compatible with this head.

This v_{ACT} head, then, is the counterpart to the *-ing* or *-er* head in English nominals and acts as a licenser for the synthetic compound. In addition to this parallelism, we can also point out similarities between the properties of the v_{ACT} head and the properties of the *-ing* affix in English that licenses the compound. Borer (2013) provides an analysis for the *-ing* affix that overlaps with the analysis given here for a null v_{ACT} affix. She states that *-ing* requires both atelic aspect and an 'originator' (which corresponds roughly to an external argument in Borer's (2013) analysis). In this way, she can explain certain aspectual phenomena when *-ing* is present, as well as the distribution and an interesting interpretation with certain unaccusative verbs. Note that in this analysis, the *-ing* affix, like the null affix that I propose for Frisian, affects both aspect and introduces an 'external argument'.

For example, Borer (2013) notes that stative verbs are incompatible with *-ing*. Here, I illustrate this claim with examples of compounds with *-ing*, though Borer claims that such effects can be observed with a full range of constructions with the nominal *-ing* affix.¹

- (31) *this kind of music admiring/party hating/fact knowing

Likewise, synthetic compounds with achievement verbs are ungrammatical as well.

- (32) *this kind of summit reaching/*task finishing/*oil discovering/*bomb exploding

In addition, Borer (2013) notes that such compounds with verbs that participate in the causative/inchoative alternation, such as 'sink', receive a transitive interpretation with an understood 'originator' when the nonhead element of the compound is interpreted as the object or internal argument of the verb.

- (33) ship-sinking/window shuttering/noise diminishing/tomato growing.

True unaccusatives, which do not permit an external argument, are ungrammatical in synthetic compounds.

- (34) *tree falling/*train arriving/*smoke (dis)appearing

This latter fact recalls the impossibility of noun incorporation in Frisian with unaccusative verbs. So like main clause noun incorporation in Frisian, *-ing* synthetic compounds disallow stative and achievement verbs, have an atelic interpretation, and disallow true unaccusatives. The difference is that the nominal *-ing* head is overt, while the verbal activity head in Frisian is covert. Another difference would be only agentive external arguments are compatible with this activity head in Frisian. In this way, we can explain why causer subjects are not allowed.

To illustrate the analysis for Frisian, we can say that the stative verb 'know' is not semantically compatible with v_{ACT} because the subject is not agentive, so the structure in (35a) is out. A similar explanation rules out a non-agentive causer subject for a verb such as 'color'. The structure in (35b) is fine semantically but is out for morphological reasons; the [N V] constituent must be bound by v_{ACT} , and here it is not. In (35c), since the verb 'push' is compatible with v_{ACT} , the structure is both semantically and morphologically well-formed.

- (35) a. [_v ACT [_v answer [_n know]]] semantically ill-formed

¹Borer (2013) admits that adjectival synthetic compounds in *-ing*, in contrast to nominals, allow statives as with 'music loving critic.'

- b. [_v answer [_n know]] morphologically ill-formed
- c. [_v ACT [_v cart [_n push]]] semantically and morphologically well-formed

With respect to a punctual verb such as ‘kill’, what is responsible for the aspectual effects is the v_{ACT} head. This head requires that the event be an unbounded activity. If the verbal compound which merges with the head gives a punctual event, then v_{ACT} coerces the event to be one that can be unbounded. In such a case, the coerced reading is repetitive. Finally, strictly unaccusative verbs are not possible because of conflicting requirements; these verbs are not compatible with an external argument, but the v_{ACT} head requires such an argument.

5 The Single Argument Restriction

We can now also explain why incorporation is not possible with small clause structures. We enforce the sole complement restriction by stipulating a requirement that the v_{ACT} head must combine with a head; it cannot combine with a phrase. Thus, if the verb merges with a small clause, a phrase is created and v_{ACT} head could not combine with such a structure. Consider the distinction between ‘push a cart’ and ‘push a cart out of the shed’

- (36) a. [_v ACT [_v push [_n cart]]]
 b. * [_v ACT [_{VP} push [_{SC} cart into the shed]]]

In fact, once we adopt this requirement, we can explain the relationship between noun incorporation and detransitivization. As Dyk (1997) shows, many of the constraints on noun incorporation also apply to detransitivization. For example, there is an aspectual restriction on the type of verbs that undergo detransitivization; stative verbs do not allow it.

- (37) a. **Richt fermimt yn 'e tún.*
 Richt notices in the garden
 b. **De kealkop hatet.*
 the skinhead hates
 c. **Loltsje kin net witte.*
 Loltsje can not know

Punctual verbs that have been detransitivized lose their punctual interpretation and must be understood iteratively.

- (38) *Bonne deade.*
 Bonne killed

The above sentence is understood as if Bonne had undertaken multiple acts of killing.

Also, small clauses are not allowed with detransitivization.

- (39) a. **Hy bakt brún.*
 he bakes brown
 b. **Beppe set op it rim.*
 Grandmother puts on the shelf

Finally, detransitivization is not possible with an inanimate causer subject, but is fine if the subject is an animate actor.

- (40) a. *It bern kleuret.*
 the child colors
 b. **De ûndergeande sinne kleuret.*
 the setting sun colors

These parallels suggest again the presence of v_{ACT} ; like the incorporation examples, detransi-

tivization involves not just the presence of the lexical verb but also the presence of v_{ACT} ; it is the presence of v_{ACT} which is responsible for the aspectual effects, the subject restriction and the lack of small clauses.

But this is exactly what we should expect if v_{ACT} takes a lexical verb as its complement. I can see no way to exclude this head from combining with a verb alone, rather than a compound. However, in such a structure, the arguments of the verb could not be expressed, because if they were, then v_{ACT} would be combining with a phrase rather than a head. Without such a noun phrase, we only have a verb, and which meets the morphological requirements of v_{ACT} .

(41) [_v ACT [_v push]]

In this case, we have a problem if the verb takes an internal argument, since the internal argument is not expressed; we expect these examples to be ungrammatical as the argument structure requirements of the base verb are not met. In this case, I would like to borrow from an analysis of *-er* nominalization developed in McIntyre (2014). To account for non-eventive *-er* nominals (such as ‘poker’) that do not require the expression of the verb’s arguments, he invokes an operation of suppress which “deactivates the argument structural features” of the verb. McIntyre considers this operation as “a last resort which is called upon to prevent the non-head from projecting structure which would violate the morphological selectional restrictions of the affix selecting it” (131). We can extend this operation to explain the missing arguments of the verb in the detransitivization cases. The operation of suppress prevents the expression of the verb’s arguments; otherwise, if they were expressed, the morphological requirement that v_{ACT} only combine with heads would not be met.

6 Conclusion

Noun incorporation in Frisian shows many types of restrictions that are not found in languages such as Mohawk or Chukchi. Rather than considering these cases to be canonical noun incorporation, I consider these N V units to be cases of synthetic compounding, with the compound licensed by an additional derivational head v_{ACT} that brings an atelic, activity interpretation to the compound. In this way, we can explain the aspectual restrictions on Frisian incorporation. In addition to these aspectual restrictions, the activity head also requires an agentive external argument. As a result, verbs with causer subjects as well as unaccusative verbs that do not allow any external argument do not permit incorporation. Finally, the activity verb head selects for a (possibly complex) head as its complement, which disallows incorporation from the subjects of small clauses. This last restriction also allows us to explain why the distribution of incorporation mirrors the distribution of detransitivization.

By treating noun incorporation as synthetic compound licensed by a null activity head, we also note several similarities between noun incorporation in Frisian and synthetic compounding in English with *-ing*, as in ‘truck driving’; both appear to be subject to similar restrictions. In this way, what appears to be an unusual feature of this language is assimilated to more typologically appropriate instance of synthetic compounding.

References

- Ackema, Peter and Ad Neeleman. 2004. *Beyond Morphology: Interface Conditions on Word Formation*. Oxford: Oxford University Press.
- Barrie, Michael and Bettina Spreng. 2009. Noun incorporation and the progressive in German. *Lingua* 119: 374-388.
- Baker, Mark. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Baker, Mark, Roberto Aranovich, and Lucia Golluscio. 2005. Two types of syntactic noun incorporation: noun incorporation in Mapudungun and its typological implications. *Language* 81: 138-176.
- Booij, Gert. 2009. A constructional analysis of quasi-incorporation in Dutch. *Gengo Kenkyu* 135: 5-27.
- Borer, Hagit. 2013. *Structuring Sense: Volume III: Taking Form*. Oxford: Oxford University Press.

- Dyk, Siebren. 1997. Noun Incorporation in Frisian. Doctoral dissertation, Rijksuniversiteit, Gronigen.
- Harley, Heidi. 2011. Compounding in Distributed Morphology. In *The Oxford Handbook of Compounding*, ed. R. Lieber and P. Štekauer, 129-144. Oxford: Oxford University Press.
- Kozinsky, Isaac, Vladimi Nedjalkov, and Maria Polinskaja. 1988. Antipassive in Chukchee: oblique object, object incorporation, zero object. In *Passive and voice*, ed. M. Shibatani, 651–707. Amsterdam: John Benjamins.
- Lieber, Rochelle. 2004. *Morphology and lexical semantics*. Cambridge: Cambridge University Press.
- McIntyre, Andrew. 2009. Synthetic compounds and argument structure: messages from a bandwagon-jumper-oner and a two-cents-worth-thrower-inner. Ms., Humboldt University. URL <http://www2.unine.ch/files/content/sites/andrew.mcintyre/files/shared/mcintyre/synth.cpd.stuttgart.pdf>.
- McIntyre, Andrew. 2014. Constraining argument structure in nominalizations: the case of English -er. *Lingua* 141: 121-138.
- Mithun, Marianne. 1984. The evolution of noun incorporation. *Language* 60: 847-93.
- Postal, Paul. 1979. *Some syntactic rules of Mohawk*. New York: Garland.
- Weggelaar, Cas. 1986. Noun incorporation in Dutch. *International Journal of American Linguistics* 52: 301-305.
- Woodbury, Hanni. 1975. Noun Incorporation in Onodaga. Doctoral dissertation, Yale Univeristy.

Department of English
University of Alabama at Birmingham
Birmingham, Alabama 35294
basilico@uab.edu