A Constructional Analysis of Quasi-Incorporation in Dutch

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Abstract: This paper deals with quasi-incorporation, the phenomenon that bare nouns form tight phrasal lexical units with verbs. The data are mainly from Dutch. The semantics of quasi-incorporation is similar to that of real noun-incorporation: the bare noun receives a generic interpretation, and the NV combination denotes a conventional activity. However, the lexical units are phrasal since they are separable in root clauses, and in verb raising clusters. It is shown that such Dutch bare Noun + V combinations (either singular or plural nouns) have two structural interpretations. They are either VPs with an NP that consists of the bare noun only, or they are units of the form \([N^0 V^0]_{v0}\) and thus a case of adjunction of the bare noun to the verb. The behaviour of these NV combinations under verb raising, in the Dutch periphrastic progressive construction, and with respect to the choice of the correct negative word (geen or niet) is shown to follow from the assumption of two possible structural analyses. Thus, Dutch quasi-incorporation is parallel to the analysis of similar cases of incorporation in Japanese, presented in Iida and Sells (2008). If the bare noun has no argumental role with respect to the verb, it is only the second structural option that is available, that of adjunction.

Quasi-incorporation can be seen as a construction, in which a specific syntactic pattern receives a specific semantic interpretation, that of conventional activity. Thus, the paper argues that the notion ‘construction’ is essential for giving a proper account of the semantics of quasi-noun incorporation.*

Keywords: construction grammar, noun incorporation, verbal compounds, quasi-compounding, Dutch

1. Introduction

In many languages nouns can be combined with verbs into verbal compounds with the structure \([N V]_v\) or \([V N]_v\). This word formation process is referred to as noun incorporation, and has been studied extensively (Baker 1988; Baker 1996; Carlson 2006; Gerdts 1998; Mithun 1984; Mithun 2000; Mithun and Corbett 1999; Riehl and Kilian-Hatz 2005). In prototypical incorporating verbal compounds the noun

*I would like to thank Hans Broekhuis and Jan-Wouter Zwart for their constructive comments on previous drafts of my analysis of noun-incorporation in Dutch. The text of this article is, as far as Dutch is concerned, based on my working paper ‘Pseudo-incorporation in Dutch’ published in the electronic series Groninger Arbeiten zur germanistischen Linguistik 46 (2008), but differs in its analysis, terminology, and argumentation.
Geert Booij saturates a thematic role of the verb, often the role of Patient. In some languages, nouns with other semantic roles can be incorporated (Creissels 2008). Noun incorporation is used primarily to form verbs that express an institutionalized (“nameworthy”) activity. These incorporated nouns do not denote specific objects, and receive a generic interpretation.¹

The difference between a sentence with a noun that projects an independent Noun Phrase (NP) and a sentence with noun incorporation is illustrated by the following examples from the Micronesian language Ponapean:

(1)  a. I kanga-la wini-o
    I eat-comp medicine-that
    ‘I took all that medicine’

  b. I keng-winih-la
    I eat-medicine-comp
    ‘I completed my medicine-taking’ (source Mithun 1984: 850)

In sentence (1b) we see a case of noun incorporation. This sentence has a different meaning than sentence (1a), which has a syntactically independent object wini-o. In (1b), with an incorporated object winih-, the sentence indicates completion of the action of medicine taking, while there may be medicine left. Typically, incorporated nouns are unmarked for definiteness, number and case, and the verbal compound behaves as an intransitive verb, whereas its verbal head is transitive. Thus, noun incorporation often has the effect of creating verbs with reduced syntactic valency: since the Patient-argument of the verb is expressed by the incorporated noun, this argument will no longer receive an independent syntactic expression.

In a number of cases, such combinations of a noun and a verb have been argued not to have the status of compounds stricto sensu, that is words, but rather that of units with phrasal status. For instance, in Hungarian we find the following possibilities for incorporation (Farkas 2006, Farkas and de Swart 2003):

(2)  a. Mari olvas egy verset
    Mari read a poem.acc
    ‘Mari is reading a poem’

  b. Mari verset olvas
    Mari poem.acc read
    ‘Mari is reading a poem/poems/poetry’

  c. Mari verseket olvas
    Mari poem.pl.acc read
    ‘Mari is reading poems’

In sentence (2a), the object egy verset ‘a poem’ occurs after the verb, the regular word order of Hungarian being SVO. In sentence (2b), on the other hand, a bare noun verset precedes the verb. In this sentence, the NV combination denotes the act of reading one or more poems, that is, poetry. So this sentence does not mean

¹ This is the type of incorporation referred to in Mithun (1984) as type I incorporation.
that Mari is reading one unspecified poem. In sentence (2c), the plural noun *verseket* is used, again without determiner, and with a generic interpretation for this plural noun.

A clear indication of the phrasal status of the NV combinations in (2b) and (2c) is that the noun is case-marked. In compounds, an incorporated N constituent does not bear its own marking for structural case. The noun and the verb are also separable, for instance by the word *nem* ‘not’ (Kiefer 1992). Note furthermore that in Hungarian the noun can be marked as a plural, hence carry a specification for Number, as in (2c). Hence, the term ‘incorporation’ as used by Farkas and de Swart (2003) is meant to refer to both cases of morphological incorporation (compounding), and to phrasal structures with both specific formal properties and the semantics of incorporation. Dahl (2004) proposes the term ‘quasi-incorporation’ for constructions where “elements enter into closely-knit units … but stop short of actually being incorporated”, and I will henceforth use this term. Quasi-incorporation has been reported to exist for a number of languages: Danish (Asudeh and Mikkelsen 2000), Dutch (Booij 1990, Kooij and Mous 2002), German (Zeller 2001), Norwegian (Carlson 2006), Swedish (Dahl 2004, Toivonen 2003), and other Germanic languages, and Japanese (Iida and Sells 2008). In these cases it is bare nouns that are quasi-incorporated. In some languages it is NPs rather than bare nouns that are incorporated since the nouns can co-occur with modifiers. This is the case for some Eastern-Indonesian languages (Klamer 2001), Hindi (Dayal 2007), and Niuean, an Oceanic language (Massam 2001). This is referred to by Massam (2001) as pseudo-incorporation.²

In this article I will argue that by making use of the notion ‘construction’ as developed in the theoretical framework of Construction Grammar (Goldberg 2006) we obtain an insightful account of quasi-incorporation: combinations of N and V in quasi-incorporation are phrasal predicates that instantiate a specific construction with syntactic and semantic properties of its own. In my analysis, I will focus on Dutch data, but also argue that a parallel analysis obtains for Japanese.

2. **N+V Combinations in Dutch**

In Dutch we find NV combinations that are sometimes referred to as (a subclass of) the separable complex verbs of this language. A number of such combinations is listed in (3) (De Haas and Trommelen 1993):³

(3)  *Noun Verb*  |  *gloss*  
--- | ---  
adem halen  |  *breath take*  ‘to take breath’

² However, Ball (2005) argues for Tongan that what looks like incorporation of noun phrases is in fact incorporation of the noun only, with concomitant inheritance by the NV compound of the valence of the noun to co-occur with an adjectival modifier.
³ Similar combinations with bare nouns occur in Danish (Asudeh and Mikkelsen 2000), Norwegian (Carlson 2006), and Swedish (Dahl 2004: 217). An example from Swedish is *Vi har häst* ‘lit. We have horse, we are horse-owners’, in which sentence the bare noun *häst* ‘horse’ follows the verb, since Swedish is an SVO language.
These NV combinations are given here in their citation form, with the infinitival form of the verb with the ending -en. According to the rules of the Woordenlijst Nederlandse Taal (Renkema 1995), these NV combinations have to be written as one word, without spacing, when there are no intervening words. However, in order not to prejudice the linguistic analysis of these NV combinations, I will write them with spacing. The nouns are all used as bare nouns here, without a determiner.

The NV combinations in (3) are special in that the nouns are bare singular nouns. In Dutch singular nouns are normally preceded by a Determiner, unless they are mass nouns such as koffie ‘coffee’ and thee ‘tea’. There are also abstract nouns that can optionally occur without a determiner, such as the noun brand ‘fire’. For most of the nouns in (3), the fact that they can be used as bare singulars is tied to their co-occurring with these verbs. As pointed out in De Swart and Zwarts (2009), the use of count nouns as bare singulars is tied to a number of specific constructions, and it is also lexically governed. The absence of the determiner implies a generic, non-specific use of these singular nouns. This use of bare singulars is also found in prepositional phrases, as illustrated by the following Dutch examples (Haeseryn et al. 1997):

(4) per trein ‘by train’
zonder bril ‘without glasses’
op school ‘at school’

In these prepositional phrases, the bare noun receives a generic, non-specific reading. There is a substantial set of such P + N expressions with generic interpretation in Dutch. Similarly, the nouns in (3) receive a generic interpretation, and the NV combinations denote conventional activities. Therefore, even though these NV combinations are not words, they exhibit the semantics of noun incorporation (Carlson 2006).

An additional property of some of these NV combinations is that the use of the verbs in this configuration is special. For instance, normally the verb spelen ‘to play’ does not take a direct object, and the verb kijken ‘to watch’ selects a preposi-
tional object; yet, these verbs combine with bare singular nouns in *piano spelen* and *televisie kijken*. The verb *lopen* ‘to walk’ is normally intransitive, but it can be used transitively in combination with *college*, where it gets the meaning ‘to attend (lectures)’. Even in the case of mass nouns such as *koffie* ‘coffee’ we have to consider the combination with the verb as lexicalized since the use of the verb *zetten* ‘lit. to put’ with the meaning ‘to make’ is tied to its combination with the mass nouns *koffie* ‘coffee’ and *thee* ‘tea’.

Since these bare singular nouns invoke a generic interpretation, the corresponding NV combinations are interpreted as referring to conventional, that is, nameworthy activities. We might hypothesize that these special properties of the nouns in these NV combinations follow from these combinations being \([NV]_v\) compounds. However, this option is out because these combinations can be split in certain syntactic contexts. This is why they are classified as separable complex verbs, and must be phrasal in nature, in accordance with the principle of Lexical Integrity that forbids syntactic manipulation of parts of words:

(5)  Principle of Lexical Integrity

“The syntax neither manipulates nor has access to the internal structure of words.” (Anderson 1992)

See Booij (2009) for discussion of this principle. The separability of these combinations is illustrated here for *piano spelen* ‘to play the piano’ in root clauses (6a), and in verbal clusters (6b). It is usually assumed that the underlying word order of Dutch is SOV. This is also the surface word order in embedded clauses. In root clauses, however, the finite form of the verb has to appear in second position, after the first constituent, whereas non-finite verbs remain in situ. Verbal clusters can be seen as an effect of raising: the verb of an embedded clause is raised to a higher clause, and forms a complex verbal predicate with the verb of the higher clause. The separability of N and V can also be observed in the form of their past participles, as illustrated in sentence (6c): the prefix *ge*- attaches to the verb constituent, and does not appear before the whole N + V combination:

(6)  a.  Jan speelt piano  
    John plays piano  
    ‘John plays the piano’

    b.  … dat Jan piano wilde spelen,  
    ... that John piano wanted play  
    ‘... that John wanted to play the piano’

    c.  Jan heeft piano gespeeld  
    John has piano played  
    ‘John has played the piano’

In sentence (6a), the finite verb *speelt* occurs in second position, but the noun *piano* occurs at the end of the sentence. In sentence (6b), the verb *wilde* ‘wanted’ forms a verb cluster with the verb *spelen*, and thus splits the combination *piano spelen*. The past participle prefix *ge*- in (6c) appears before the verbal stem, but after the noun
piano. These facts show that we have to assign phrasal status (VP status) to piano spelen. We therefore conclude that these NV combinations are phrasal combinations, and that they have to be listed in the lexicon as such, in particular to express that these verbs license bare singular nouns as arguments and, together with the noun, denote a conventional activity.

But this is not the whole story of NV combinations like piano spelen, since there are two syntactic tests that show that these NV combinations can also form tighter syntactic constructs than VPs. This is what I will refer to as quasi-incorporation.

First, NV combinations such as piano spelen may occur as a constituent of the aan het INF-construction of Dutch. This is a construction with a progressive meaning (Booij 2008) found in a number of West-Germanic languages. Consider the use of piano spelen in sentence (7). The parenthesized part is the part of the sentence for which two alternatives are considered.

(7) Jan is {piano aan het spel-en / aan het piano spel-en}
   John is {piano at the play-INF / at the piano play-INF}
   ‘John is playing the piano’

Normally, the object of a verbal infinitive in the aan het INF-construction has to appear before aan het, as illustrated in (8). The verb bespelen ‘to play on’ is a regular transitive verb (with a transitivizing prefix be-) that requires its direct object, the singular noun piano, to be preceded by a determiner:

(8) Jan is {de piano aan het bespelen / *aan het de piano bespelen}
    John is {the piano at the play-INF / at the the piano play-INF}
    ‘John is playing music on the piano’

In (8) the noun piano is preceded by a definite determiner de ‘the’, and hence it is not used as a bare noun. In contrast, in the case of NV combinations such as piano spelen the noun can appear either before the aan het INF sequence (the regular position of objects), or right before the infinitive, after aan het.

The special nature of these NV combinations of being very tight syntactic units also manifests itself in the verb raising construction mentioned above. Direct objects of main verbs cannot be clustered in standard Dutch together with their verb, as shown in (9b), but these bare nouns can form part of the verbal cluster created through verb raising, as shown in (9a):

(9) a. … dat Jan {piano wilde spelen / wilde piano spelen}
   ‘… that John {piano wanted play / wanted piano play}’
   b. … dat Jan {de piano wilde bespelen / *wilde de piano bespelen}
   ‘… that John {the piano wanted to play / wanted the piano play}’

Hence we have to conclude that such NV combinations have a special status, and can behave as a lexical, very tight phrasal unit.

This raises the question of the structure of such NV combinations. My proposal is that they can receive two structural interpretations. On the one hand, they can be interpreted as VPs consisting of an NP (containing a bare N only) and a V. The
other structural option is that of a syntactic compound: the bare noun is adjoined as an N\(^0\) to a V\(^0\), resulting in the structure \([N^0 \ V^0]_{v0}\). This structure expresses that NVs are phrasal in nature; yet, the noun in this structure cannot be modified nor preceded by a determiner. This latter option allows for the NV sequence to occur as a V\(^0\) unit in the *aan het INF* construction and after raising verbs. This adjunction structure is also proposed by Ghomeshi and Massam (1994) for Persian complex predicates, by Ghomeshi (1997) for the Persian Ezafé-construction, by Toivonen (2003) for Swedish NV sequences, and by Iida and Sells (2008) for Japanese quasi-incorporation.

In sum, a combination of N and V can occur in three different structural configurations, with the following structural properties, some of which will be discussed below:

(10) a. regular syntax: \([… N^0]_{NP} V^0_{VP}\)
- N occurs before *aan het* in *aan het INF*-construction
- N precedes the complex predicate created by raising
- N can be negated by negative word *geen*
- N can be preceded by an adjectival modifier
- N can be stranded in root clauses with V in second position
- the past participle is formed by prefixing *ge-* to the stem of the V in V\(^0\)

b. quasi-incorporation: \([N^0 \ V^0]_{v0}\)
- N occurs after *aan het* in *aan het INF* Construction
- N can be raised with V to higher clause complex predicate
- N can be preceded by negative word *niet*
- N cannot be preceded by an adjectival modifier
- N cannot be stranded in root clauses with V in second position
- the past participle is formed by prefixing *ge-* to the stem of the V in V\(^0\)

c. compounding: \([N \ V]_{v0}\)
- the NV appears as a unit in second position in root clauses
- N and V cannot be split by syntactic or morphological rules
- the past participle is formed by prefixing *ge-* before the N

This means that quasi-incorporation is interpreted as a kind of syntactic compounding, different from morphological compounding in that in the latter case the whole compound is matched with one syntactic V\(^0\) position. The third structural type is marginal and unproductive in Germanic languages like Dutch where quasi-incorporation is the preferred alternative.\(^4\)

\(^4\) Instead of considering the full phrases in which the bare nouns occur as NPs, one might also consider them DPs, but nothing hinges on this issue in the present analysis. See Payne (1993) and Matthews (2007) for a critical discussion of the DP-hypothesis.

An alternative analysis for similar cases of pseudo-incorporation in German is proposed by Zeller (2001: 129), who makes crucial use of the distinction between NPs and DPs. A German pseudo-compound like *Auto fahren* ‘to drive a car’ is proposed by Zeller to have the structure \([N^0_{NP} \ V^0_{VP}]\). That is, the noun *Auto* is an NP, but not a DP, and the
Structure (10b) is a structure for non-projecting nouns, that is nouns that do not project a phrase. The non-projecting nature of the quasi-incorporated nouns of Dutch is confirmed by the observation that they cannot be modified by adjectives. For instance, Dutch does not allow for quasi-compounds like klassieke piano spelen ‘to play classical piano’, in which the (inflected) adjective klassieke ‘classic’ modifies the noun piano (structure 10b), whereas modification of the noun is possible when the NV sequence is interpreted as a VP, even though it has the semantics of incorporation:

(11) a. … dat Jan klassieke piano speelt 
    … that John classical piano plays
    ‘that John plays classical piano music’

b. Jan is aan het klassieke piano spelen
    John is at the classical piano play-INF
    ‘John is playing classical piano music’

c. Jan is klassieke piano aan het spelen
    John is classical piano at the play-INF
    ‘John is playing classical piano music’

Structure (10b) is motivated for quasi-incorporation in Dutch by the special behaviour of NV combinations such as piano spelen in the aan het INF- construction and in verbal clustering. If we specify the infinitive position as V⁰, we predict that not only simplex or complex verbs, but also these NV combinations can be used in that construction (cf. 7). Similarly, if we formulate Verb Raising as applying to V⁰ constituents, it is predicted that either the V⁰ spelen (structure 10a) or the whole [N⁰V⁰]₀ combination piano spelen (structure 10b) can be raised (cf. 9a).

The assumption that there are two structural interpretations for NV combinations is corroborated by the behaviour of these combinations with respect to the selection of negative elements. The negating element in Dutch is either niet or geen. As pointed out in Broekhuis et al. (2003), the difference between these two words is that geen forms a syntactic constituent with the following noun, that is, an

functional projection for the determiner (the DP structure) is absent. Hence, this noun receives a generic interpretation. This proposal does justice to the phrasal nature of quasi-incorporation. It also expresses that the complex predicate can function as an intransitive predicate. However, in order to express that quasi-compounds form a unit with respect to the progressive construction and verb raising, as shown above, in contrast to regular VPs, an additional Principle of Reanalysis has to be invoked (Zeller 2001: 273). This principle states that particles and quasi-incorporated nouns when adjacent to a verb can be reanalyzed as being adjoined to a lexical head V⁰ which they form a V⁰. That is, Zeller assumes the same adjunction structure as proposed above as an option for such complex predicates.

In (Booij 1990, 2002a, 2002b), the phrasal nature of quasi-compounds (and particle verbs), and the non-projecting nature of these nouns is pointed out as well; quasi-compounds are considered as minimal projections of V, that is V⁰. It is impossible to give a comparative evaluation of these alternative proposals within the restricted space of this article.
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NP (12a), unlike *niet, that is used with intransitive predicates (12b):

(12)  a.  Ik kan {*niet / geen} auto kopen
    I can  NEG     car     buy-INF
    ‘I cannot buy a car’

b.  Ik kan {niet / *geen} fluiten
    I can  NEG     flute-INF
    ‘I cannot play the flute’

c.  Ik kan {niet / geen} piano spelen
    I can  NEG     piano     play-INF
    ‘I cannot play the piano’

In sentence (12c), both negative words can be used. This follows if the sequence piano spelen can receive two structural interpretations. If it is interpreted as a regular VP (structure 10a), there is an NP and hence the negative word geen will be selected (and forms an NP with the noun); if it is interpreted as quasi-incorporation (structure 10b), it is an intransitive predicate that selects the negative word niet.

In root clauses the finite, tensed verb appears in second position. Non-finite verbal constituents (which form a complex predicate V0 with the finite verb) are left behind:

(13)  a.  Jan [heeft i]V0 [de piano]NP [[bespeeld]v0 t_i]V0
    John has     the piano   played on
    ‘John has played on the piano’

b.  Jan [heeft i]V0 [piano v0]NP [[gespeeld]v0 t_i]V0
    John has     the piano     played
    ‘John has played the piano’

This means that only the finite verbal form of a NV combination is moved to second position.

Consider now the following range of sentences with the negative words niet and geen, and their (un)grammaticality:

(14)  a.  Jan speelt {geen / * niet} piano   t_i
    John plays  NEG     piano
    ‘John does not play the piano’

b.  Jan heeft {geen / niet} piano gespeeld   t_i
    John has  NEG     piano     played
    ‘John has not played the piano’

In (14a), the finite verb speelt has moved to second position. The presence of niet shows that the second option is a case of quasi-incorporation since niet occurs with intransitive predicates. Hence, we conclude that the finite verb cannot be moved out of quasi-compounds, stranding the noun. In (14b), it is the auxiliary for perfect tense that is moved to second position. The grammatical variant with niet presupposes quasi-incorporation. This quasi-compound is kept intact, and thus,
this variant is grammatical.

This does not mean that the negative word *niet* can never be used for the negation with independent NPs. This is possible when the NP is in a position where it is stressed contrastively. This holds both for NPs with an indefinite determiner, and for NPs with a bare singular noun like *piano*:

(14) c. Een bíertje drink ik nooit
    A beer-dim drink I not
    ‘I do not drink a beer’

d. Píáno speel ik niet
    Piano play I not
    ‘I do not play the piano’

I assume that this prohibition on stranding bare nouns in the incorporated construction follows from the principle that a syntactically independent noun (that is, a noun that does not form part of a complex word) must be licensed. Normally, it is licensed by forming part of an NP which in its turn is licensed through (abstract) case assignment. I propose that there is a second form of licensing for nouns (presumably language-specific), namely by being adjoined to a verb that is not a trace, which we may refer to as local licensing. This implies that movement of the finite verb in the variant of (14a) with *niet*, where the presence of *niet* signals the presence of a quasi-compound, is not allowed because it leads to an incorrectly stranded noun. More examples of this pattern are given in (15):

(15) a. Jan zet {geen / *niet} koffi e
    John makes NEG coffee
    ‘John does not make coffee’

b. Morgen geef ik {geen / *niet} les
    Tomorrow give I NEG lesson
    ‘Tomorrow, I will not teach’

c. Ik rijd helaas {geen / *niet} auto
    I ride, alas, NEG car
    ‘Alas, I do not drive a car’

d. Hij haalt {geen / *niet} adem meer
    He takes NEG breath more
    ‘He does not breathe anymore’

As pointed out above, in most cases the use of nouns as bare singulars implies a generic interpretation of these nouns, and hence the relevant predicates denote habitual actions. In the case of mass nouns like *koffi e* ‘coffee’ and *bíer* ‘beer’, the bare singular nouns can also be interpreted as indefinite nouns. Hence, there is a difference in the interpretation of the two structures for such NV sequences, which can be illustrated by the following sentences, both meaning ‘John cannot make coffee’:

(16) a. Jan kan geen koffi e zetten

b. Jan kan niet koffi e zetten
Sentence (16a) is ambiguous, unlike sentence (16b). In (16a) koffie zetten denotes either an event or a habitual action, but in (16b), a case of quasi-incorporation (as proven by the use of niet as a negator), koffie zetten can only denote a habitual action. Hence, a sentence like Jan kan vandaag niet koffie zetten ‘John cannot make coffee today’ is semantically odd because koffie zetten is here a conventional activity, and hence kunnen koffie zetten ‘to be able to make coffee’ is here an individual, not a stage-level predicate. This means that it cannot be combined with the temporal adverbial vandaag ‘today’ that would coerce a stage-level interpretation. The quasi-compounds function as intransitive predicates that denote a nameworthy activity. Therefore, sentence (16a) may be uttered in a situation where there is no coffee available, whereas sentence (16b) may be used in a situation in which John has never learnt how to make coffee.

The structure and corresponding meaning that I therefore propose to assume for quasi-incorporation is the following:

(17) \[[N^0][V^0]]_{V0} ‘to perform a conventional action V in which N is involved’

This structure is a constructional schema that specifies the structure of quasi-incorporation, and (a first approximation of) the semantic correlate of its formal structure. Constructions are pairings of form and meaning at different levels of abstraction (Goldberg 2006). Individual lexicalized instantiations of these quasi-compounds are listed in the lexicon. In the lexicon both the abstract patterns and their instantiations are represented. This also applies to the phrasal construction (10a), and its instantiations. As we have seen, the NV combinations listed in (3) are instantiations of both V0 construction (10b) and VP construction (10a). When phrasal patterns might be listed in the lexicon, there is no sharp boundary anymore between lexicon and grammar (Jackendoff 2002, 2007, 2008). Schema (17) expresses the fact that quasi-incorporation is not only a formal structural operation, but has a specific semantic effect as well. A similar ‘semantic incorporation’ effect (Carlson 2006) has to be specified for the specific form of Dutch VPs mentioned in (10a).

As noted above, the use of count nouns as bare singulars is only available for a restricted set of nouns, in combination with specific verbs. (As we will see below, this is different for plural nouns which can freely occur as bare nouns.) Hence, the following condition must added to schema (17): ‘the N0 position is filled by a bare noun that is subcategorized for appearing with the V in V0’. In other words, these idiomatic collocations of a noun and a verb can embedded in two structural configurations.

Quasi-incorporation thus creates intransitive predicates, which license niet as negative operator, can occur in the progressive aan het INF-construction, and can cluster with raising verbs such as willen ‘want’. Quasi-incorporation is possible if the NV combination has lexicalized as a predicate denoting a nameworthy activity.

The lexically governed nature of the process is illustrated by pairs like adem halen ‘lit. to take breath, to breathe’ / adem krijgen ‘to get breath’. Note that adem ‘breath’ is a mass noun, and therefore its use as a bare singular does not depend on
the presence of a specific verb. It is only the first NV, *adem halen*, that denotes the habitual action of breathing with a certain duration, and therefore can exhibit the typical effects of quasi-incorporation discussed above such as co-occurrence with the negative word *niet*:

(18) … omdat hij {*niet adem kreeg / niet adem haalde}  
    … because he {not breath got / not breath took}  
    ‘… because he did not breathe’

Therefore, the quasi-incorporation of bare singular nouns is to be seen as a lexical construction even though it is phrasal in nature.

3. Quasi-Incorporation of Bare Plural Nouns

A second case of quasi-incorporation of nouns in Dutch is one in which the noun exhibits plural morphology.⁵ Again, the NV combination denotes an institutionalized or nameworthy activity:

(19) a. aardappels schill-en  
    potatoes  peel-INF  
    ‘to peel potatoes’  

b. appels plukk-en  
    apples  pick-INF  
    ‘to pick apples’  

c. brieven schrijv-en  
    letters  write-INF  
    ‘to write letters’  

d. kous-en  stopp-en  
    stockings  mend-INF  
    ‘to mend stockings’  

Unlike the cases of singular N incorporation, these combinations are not written as one word, but as two in Dutch orthography. The arguments for considering these word combinations cases of quasi-incorporation are the same as for the cases of incorporation of singular nouns: the noun can occur right before the infinitive in the *aan het INF*-construction and in verb clusters, and the negative word *niet* can be used. This indicates that these NV combinations function as intransitive predicates in such environments, and hence the object-argument must be an incorporated one. As was the case for quasi-incorporation of bare singulars, these NV combinations may also function as transitive VPs in which the noun functions as an NP. In the sentences (20), the first variant of each sentence evokes an indefinite interpretation of the bare plural, and the second variant evokes a generic interpretation, due to quasi-incorporation:

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⁵ This type of quasi-incorporation is also found in other Germanic dialects such as Lower-Saxon and North-Frisian, see Booij (2004) and Ebert (2000).
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(20)  {full NP status of bare plural noun / quasi-incorporation of bare plural noun}

a. Jan is aardappels {aan het schill-en / aan het aardappels schill-en}
   John is potatoes {at the peel-INF / at the potatoes peel-INF}
   'John is peeling potatoes'

b. Jan is {de aardappels aan het schill-en / *aan het de aardappels schill-en}
   John is {the potatoes at the peel-INF / at the the potatoes peel-INF}
   'John is peeling the potatoes'

c. Jan is {nieuwe aardappels aan het schill-en / *aan het nieuwe
   potatoes peel-inf }
   'John is peeling new potatoes'

d. … dat Jan {geen aardappels schilt / niet aardappels schilt}
   … that John {no potatoes peels / not potatoes peels}
   'that John does not peel potatoes'

e. Jan schilt {geen aardappels / *niet aardappels}
   John peels {no potatoes / not potatoes}
   'John does not peel potatoes'

f. Jan is {geen aardappels aan het schill-en/ niet aan het aardappels
   schill-en}
   John is {no potatoes at the peel-INF/not at the potatoes
   peel-INF}
   'John is not peeling the potatoes'

g. … dat Jan {aardappels moet schillen / moet aardappels schill-en]
   … that John {potatoes must peel-INF / must potatoes peel-INF}
   ‘… that John must to peel potatoes’

Again, we assume the quasi-incorporated plural nouns to have the syntactic status of N0, and their occurrence as bare nouns is licensed by the adjacent verb in the [N0 V0]V0 structure.

Sentence (20g) illustrates the scopal effects of quasi-incorporation, observed for Hungarian incorporation in Farkas and de Swart (2003). In the first variant of (20g) the noun aardappelen can have scope over moet schillen, hence the meaning ‘there are potatoes for which holds that John must peel them’ (aardappelen is not within the scope of moet schillen). Another scopal interpretation is possible, with the meaning ‘John must peel things that are potatoes’. That is, aardappelen is within the scope of the complex predicate moet schillen. This latter interpretation is the only possible one for the second, quasi-incorporating, variant of (20g): the obligation expressed by must does not pertain to peeling only, but to the peeling of potatoes.

These scopal effects are not necessarily tied to the formal structure of quasi-incorporation (with incorporation of an N0), since they can also be observed in languages where full NPs can be incorporated. For instance, in Flemish (the variant of Dutch spoken in Belgium), NPs can be incorporated, as shown by verbal raising. Consider now the following examples from Haegeman and Van Riemsdijk
(1986: 442):

(21) da {geen vlees hee willen eten / hee willen geen vlees eten} 
    that John {no meat has want eat / has want no meat eat} 
    ‘that John has not wanted to eat meat’

In the first variant it is either stated that there is no meat that John wants to eat, or that John does not want to eat any meat (with willen having scope over geen vlees eten), whereas in the second variant with incorporation, the sentence can only mean that John does not want to eat any meat (Haegeman and Van Riemsdijk 1986: 443). This is exactly parallel to what holds for quasi-incorporation in standard Northern Dutch, the variant of Dutch analyzed in this paper.

As pointed out above, the quasi-incorporation structure typically evokes the interpretation of these NV combinations as a nameworthy activity. The effect is the creation of intransitive predicates. The incorporation cannot be interpreted in terms of a syntactic derivation from a clause with a transitive VP because it is only the incorporation structure that forces the generic interpretation of these bare plurals, and thus creates the obligatory interpretation as a nameworthy activity. Therefore, this form of quasi-incorporation should be interpreted as a construction, a pairing of a particular phrasal configuration with a particular form, as given in (17). The productivity of this incorporation schema for bare plural nouns is higher than that for bare singulars because bare plurals can always be interpreted as generic, whereas bare singular count nouns with generic interpretation have a much more restricted, lexically governed distribution, as mentioned above.

The instantiations of the incorporation construction must be lexically listed, and the possibility of coining a new one depends on whether the activity that is being denoted is a nameworthy one.

Additional evidence for the lexical nature of this phrasal construction is that the quasi-incorporation structure must also be available in syntactic contexts where a full DP structure is impossible as underlying structure because the syntactic context requires intransitive predicates. That is the case for the aan het INF- complements of causative verbs such as brengen ‘to bring’, krijgen ‘to get’ and maken ‘to make’ (Haeseryn et al. 1997: 1052–3). Note that twijfelen ‘to doubt’ is an intransitive verb, but vertellen ‘to tell’ a transitive one that becomes intransitive when the object argument is pseudo-incorporated:

(22) a. Hij brengt ons aan het twijfel-en (intransitive predicate) 
    He brings us at the doubt-INF 
    ‘He makes us doubt’

b. *Hij brengt ons sprookjes aan het vertell-en (transitive predicate) 
    He brings us fairy tales at the tell-INF 
    ‘He makes us tell fairy tales’

c. Hij brengt ons aan het sprookjes vertell-en (intransitive predicate) 
    He brings us at the fairy tales tell-INF 
    ‘He makes us tell fairy tales’
Selecting the plural form of the incorporated noun is usually the only option since there is only a restricted, fixed set of bare singulars that combine with verbs, as pointed out above:

(23) *Jan schilt aardappel / *Jan is aan het aardappel schill-en
    Jan peels potato.sg / John is at the potato.sg peel-INF
    ‘John is peeling potatoes’

The same holds for the conventional activity of collecting stamps, where a plural noun has to be selected:

(23) postzegel-s verzamelen / *postzegel verzamelen
    stamp-pl collect / stamp.sg collect
    ‘stamp collecting’

The verb verzamelen ‘to collect’ is one of the verbs that require a plural object, and example (23) shows that the feature [plural] is semantically active in quasi-incorporation.⁶ This can be contrasted with real compounding in which noun stems standardly receive a generic interpretation without plural marking. For instance, in the compound postzegelverzamelaar ‘stamp collector’, the absence of plural marking on the noun postzegel ‘stamp’ does not block a generic reading: a postzegelverzamelaar certainly collects more than one stamp. That is, it is only in cases of real compounding that number neutrality is at stake.

4. Immobile Verbs

There is another class of NV combinations in Dutch that differs from the NV combinations discussed above in that the noun has no argument role. Examples are the following (more Dutch examples, and similar examples for German can be found in Vikner 2005).

(24) Noun Verb
    buik spreken ‘to stomach speak, ventriloquizing’
    koord dansen ‘to rope dance, walking a tightrope’
    mast klimmen ‘to pole climb, climbing the greasy pole’
    steen grillen ‘to stone grill, stone-grilling’
    stil dansen ‘to style dance, ballroom-dancing’
    vinger verven ‘to finger paint’
    zak lopen ‘to bag walk, running a sack-race’
    zee zeilen ‘to see sail, ocean-sailing’

Again, in order not to prejudge the linguistic analysis, I write these word combinations as two words, although Dutch orthography requires them to be written as one word.

These word combinations cannot be compounds because they do not occur in

⁶ The non-neutrality of the plural marking in quasi-incorporation has also been observed for Hungarian (Farkas and de Swart 2003) and Hindi (Dayal 2007).
root clauses; in such clauses, they can only be used with the periphrastic progressive construction mentioned above; in non-root-clauses, however, they can be used in both their non-finite and their finite forms (Booij 2002c, van Marle 2002):

(25)  a. *Mijn vader zee zeilt vaak
    My father sea sails often
    ‘My father often sails at sea’

    b. Mijn vader is vaak aan het zee zeil-en
    My father is often at the sea sail-INF
    ‘My father often sails at sea’

    c. ... dat mijn vader vaak zee zeilt
    ... that my father often sea-sails
    ‘that my father often sails at sea’

(26)  a. *Mijn zuster stijl dans goed
    My sister style dances well
    ‘My sister is a good ballroom dancer’

    b. Mijn zuster is vaak aan het stijl dans-en
    My sister is often at the style dance-INF
    ‘My sister does ballroom dancing often’

    c. ... dat mijn zuster goed stijl dans
    ... that my sister well style dances
    ‘that my sister is good at ballroom dancing’

As mentioned in Vikner (2005), the same array of facts holds for German. Vikner (2005) refers to these NVs as immobile verbs because the finite verb cannot be moved into other syntactic positions such as the first position (questions) or second position (root clauses).

The non-occurrence of these quasi-compounds in root clauses follows from assigning them phrasal status. A quasi-verbal compound cannot occur in second position in root clauses, because this second position is for a single finite V only, not for a phrasal predicate. In this respect, quasi-compounds differ from real verbal compounds such as voetbal ‘to play soccer’ (a verbal compound created through conversion of the nominal compound voetbal ‘football’):

(27) Mijn vader voetbal-t elke zaterdag
    My father football-s every Saturday
    ‘My father plays football every Saturday’

The analysis presented here answers the question why NV combinations such as piano spelen ‘to play the piano’ discussed in Section 2 behave differently from NV combinations such as zee zeilen in which the noun does not function as an argument of the verb. The NV sequence adem halen can be interpreted as a regular VP with a bare singular noun that functions as an NP. Such structures are only possible with nouns that can function as an argument of the verb. In this respect, they are therefore different from NV combinations such as zee zeilen that only occur in the quasi-incorporation construction, since zee ‘sea’ is not an argument of zeilen ‘to sail’.
In his discussion of the different types of NV compounds and pseudo-compounds of Dutch, Ackema (1999) proposed the following generalization:

(28) “If N is an argument of V, N-V is separable.”

This generalization is meant to express the distributional differences between the NV combinations of the *adem halen* type and those of the *zee zeilen* type. It follows directly from the analysis presented here because NV combinations when separated are regular VPs. And hence the N must be an argument. Yet, even the NV combinations that Ackema qualifies as inseparable complex verbs such as *zee zeilen* have to be considered as phrasal in nature, in order to explain why they do not occur in second position in root clauses and why the participial prefix appears after the noun, before the verbal stem. In other words, none of the NV combinations has word status.

The schema of quasi-incorporation \([N^0 \ V^0]_V^0\) requires the two words to be adjacent, and thus predict the class of *zee zeilen* combinations to be non-separable, unlike the *koffie zetten* class for which a second structural interpretation as regular VP is available. This difference is also found in sentences with contrastive focus such as:

(29)  a. Kóffie kan hij niet zetten
  Coffee can he not make
  ‘Coffee he cannot make’
  b. *Zée kan hij niet zeilen
  Sea can he not sail
  ‘He cannot do sea-sailing’

Since *zee* in (29b) cannot be interpreted as an NP, it cannot be topicalized, unlike *koffie* in (29a).

NV combinations of the immobile type cannot be derived from VPs in which the N functions as an NP-argument. Thus, they show again that lexical templates for phrasal combinations of words are necessary.

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7 Vikner (2005) proposed another explanation for the immobility of these NVs than that proposed above. According to him, immobile verbs are simultaneously Vs and V*s, that is, both words and small phrases. The only syntactic position in which these NVs can fulfill the requirements of both structures is when N and V are adjacent. Hence, the verbal part cannot be moved. There are two problems with this proposal, however. One is that assigning them V-status implies that the participial prefix *ge-* cannot occur in the middle, right before the verbal stem. As we saw above, the prefix does occur in that position. Secondly, Vikner’s analysis does not explain Ackema’s correct generalization that only verbs with argumental nouns possess mobility. He has to stipulate for which NVs the double requirement holds. In my analysis this difference is accounted for by providing two different structural interpretations for combinations of verbs with argumental nouns only. A noun like *zee ‘sea’ in zee zeilen ‘sea-sailing’ is not a argument but an adjunct. Hence, it can only be licensed by the quasi-incorporation construction.

8 Individual cases of quasi-incorporation may develop into real compounds, at least for some
Summing up our findings as to quasi-incorporation in Dutch, we have seen that there are three subtypes, all with the structure \([N^0 \ V^0]_{V_0}\) given in (10b): (i) incorporation of argumental bare singular nouns, with verbs that are subcategorized for appearing with these bare singulars; (ii) incorporation of argumental bare plural nouns; and (iii) incorporation of non-argumental bare singular nouns. In the next section I will argue that this type of constructional analysis of quasi-incorporation can also be used for the analysis of Japanese *suru*-compounds.

5. Quasi-Incorporation in Japanese

Japanese features a class of verbal complex expressions that are usually referred to as *suru*-compounds (Kageyama 1982, 1999). These are right-headed compounds with the verb *suru* ‘to do’ as head; the non-head is a verbal noun. The following examples illustrate this type of compounding:

speakers of Dutch. In that case, they can occur in second position in root clauses. Examples from a Google search (15 January 2008) are *stijl-dansen* ‘to style-dance’ and *koek-happen* ‘to cake-eat’. Both of these NV combinations are used in root clauses:

(i) De koning zelf koek-hapt
   ‘The king himself cake-eats’
(ii) … en stijldanst hij met zijn nichtje
   ‘… and style-dances he with his niece’

There is variation among speakers in this respect, and this is to be expected given the fact that NV sequences have potentially three different structural interpretations. My Google search data confirm that generally we do not find these NVs in second position in clauses, but it comes as no surprise that language users find it not always easy to assign the proper structure to such word combinations. Hence, some language users impose a compound interpretation on NV sequences. For instance, I found the following numbers of tokens for the competing participle forms of NV combinations (Google search 15 January 2008):

<table>
<thead>
<tr>
<th>pseudo-incorporation</th>
<th>compounding</th>
<th>gloss</th>
</tr>
</thead>
<tbody>
<tr>
<td>buik-ge-sprok-en 23</td>
<td>ge-buik-spreek-t 3</td>
<td>ge-buik-sprok-en 0</td>
</tr>
<tr>
<td>steen-ge-grild 9</td>
<td>ge-steen-gril-d 363</td>
<td></td>
</tr>
<tr>
<td>stijl-ge-dans-t 35</td>
<td>ge-stijl-dans-t 355</td>
<td></td>
</tr>
<tr>
<td>vinger-ge-verf-d 3</td>
<td>ge-vinger-verf-d 257</td>
<td></td>
</tr>
<tr>
<td>wad-ge-lop-en 176</td>
<td>ge-wad-loop-t 40</td>
<td></td>
</tr>
<tr>
<td>zak-ge-lop-en 54</td>
<td>ge-zak-loop-t 3 / ge-zak-lop-en 0</td>
<td></td>
</tr>
</tbody>
</table>

The forms on the left are to be expected if a pseudo-incorporation interpretation is imposed on these NV sequences. The forms on the right are expected if these NVs are compounds. Similar variation is observed for German speakers by Vikner (2005).

The reinterpretation of phrasal combinations as NV compounds took place on a much larger scale in another Germanic language, Frisian, where we find sentences like (i) (Dyk 1990):

(i) Hy noas-snutte wakker
   He nose-blew heavily
   ‘He blew his nose heavily’
A Constructional Analysis of Quasi-Incorporation in Dutch

(30) a. yama-nobori-suru
    mountain-climbing-do
    ‘to do mountain climbing’

b. kenyuu-suru
    research-do
    ‘to do research’

c. saikuringu-suru
    cycling-do
    ‘to do cycling’

Instead of suru, a number of other suppletive forms with a related meaning can be used: the potential form dekiru, the honorific form nasaru, and the humble form itasimasu (Kageyama 1999: 313).

One interesting feature of this kind of incorporation is that it is only productive with the verb suru and the related suppletive forms mentioned above. Therefore, we might qualify the schema for this kind of compounds as a constructional idiom (Booij 2002b, Jackendoff 2002), that is a schema in which one of the positions is lexically filled with the verb suru, whereas the other (non-head) position is a variable, and can be filled with all sorts of verbal nouns (VN):

(31) \([x]\VN \ [suru]_{VN} \ [v_0]_{V0} \ ‘to perform the act denoted by VN’\)

As argued by several authors, these compounds are phrasal in nature because the constituents can be separated by certain morphemes such as focus particles (Iida and Sells 2008; Kageyama 1982, 1999; Matsumoto 1996a, 1996b). Therefore, they might be interpreted as cases of quasi-incorporation (although Kageyama (2009) denies this idea):

(32) a. sampo-sae suru
    walk-even do
b. bidoo-dani si-nai
    budge-even do-not (Kageyama 1999: 314)

Iida and Sells (2008: 964) show that there are in fact two structural options for the verb suru: either it takes a regular phrasal complement, or it forms a syntactic compound with the verbal noun (a case of what they call ‘subphrasal syntax’). That is, as in Dutch, a bare singular N complement of a V can be interpreted as either an NP (32a) or an N₀ (32b). Iida and Sells provide the following examples:

(33) a. benkyoo-o su-ru ‘study-acc do-NonPast’ (phrasal)
    b. benkyoo su-ru ‘study do-NonPast (subphrasal)

In (33a) the VN is case marked (regular verbal complementation), whereas in (33b), the VN has no case marker.

When the VN is modified, and hence cannot be interpreted as an N₀, the case marker must be present; when the thematic object of VN does not modify VN and appears in the accusative, the VN itself cannot be case marked. That is, modifica-
tion implies a phrasal projection for the VN, whereas a sub-phrasal interpretation is possible when there is no modifier, with concomitant absence of case-marking (Iida and Sells 2008: 964):

(34) a. kare-wa [nihongo-no benkyoo]-o si-ta
   he-top [Japanese-gen study]-acc do-past
   ‘He did study of Japanese’

b. kare-wa nihongo-o [benkyoo si-ta]
   he-top Japanese-acc [study do-past]
   ‘He studied Japanese’

In sum, like in Dutch, sequences of a bare noun and a verb can be interpreted in two ways, either as regular VPs, or as cases of quasi-incorporation in which a noun (N0) is adjoined to a V0.

These facts of Dutch and Japanese have the same implications for a proper theory of the architecture of the grammar: word sequences that are not words in the morphological sense, but are compound-like, should be interpreted as syntactic compounds (besides having an interpretation as regular VPs). Such sub-phrasal, non-morphological patterns can be accounted for by lexical schemas, with a specification of both form and meaning. Thus, both Dutch and Japanese quasi-incorporation provide evidence in support of a theory of grammar that does away with the sharp boundary between grammar and lexicon, as in constructional approaches to phrasal and morphological constructs.

References


オランダ語擬似編入のコンストラクション分析

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本稿は、主としてオランダ語に基づいて、裸名詞が動詞と一緒に緊密な語彙的まとまりを形成する「擬似編入」と呼ばれる現象を扱う。擬似編入の意味論は真性の名詞編入と同じで、裸名詞が動詞解釈を受け、名詞と動詞の組み合わせは慣習化された活動を表す。ただし、擬似編入における名詞と動詞のまとまりは、主節および動詞繰り上げ構文において分離可能であるため、語ではなく句である。オランダ語の裸名詞（単数形、複数形いずれも可能）と動詞との組み合わせは構造的に2通りの分析が可能である。ひとつは裸名詞のみで構成される名詞句が動詞句構造（VP）を形成する場合、もうひとつは裸名詞が動詞に付加された[VN V0]という語彙的まとまりを形成する場合である。オランダ語の動詞繰り上げ、迂回的進行形構文、および適切な否定形（geenまたはniet）の選択におけるこれらNV形の振舞いは、上述の2つの構造から導き出すことができる。このように、オランダ語の擬似編入は、Iida and Sells（2008）が日本語の類似現象について行った分析と並行的に捉えることができる。もし裸名詞が動詞から頭としての役割を受けることができなければ、その裸名詞は必然的に、上述の2番目の構造、すなわち名詞が動詞に付加された構造になる。

擬似編入は、特定の統語形式が特定の意味解釈（この場合、慣習化された活動）と結びつくという意味で、コンストラクション（構造体）と見なすことができる。すなわち、擬似編入の意味論を適切に扱うためには、コンストラクションの概念が必要なのである。