The quest for syntactic dependency. Sentential complementation in Sign Language of the Netherlands
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Citation for published version (APA):
las, we went astray for a moment. The last adventure did not bring us any closer to our goal. Nevertheless, it was interesting and it gave us some new insights. We won't be daunted that easily. So, let's not linger any longer and get back on the right track, for the next adventure already lies ahead.

5.1 Introduction

In the ASL literature on complex sentences, the absolute duration, that is, the extension of the non-manual negation marker over the sentence, is also used as a diagnostic to discriminate between subordinate and coordinate clausal relationships (Padden 1988). Just like pronominal right dislocation, the applicability of non-manual negation as a test for syntactic embeddedness in NGT has been questioned in chapter 2, section 2.1.2. In this chapter we will see that this doubt is not justified.

5.2 The distribution of non-manual negation

The non-manual negation marker in NGT consists of one or more headshakes and is often accompanied by a negative facial expression. This non-manual marker alone is enough to express denial of a proposition in NGT and ASL. This is shown in (1) for NGT. In (1a) is a simple affirmative sentence. In (1b-c) this same sentence is accompanied by the non-manual negation marker, which gives the sentence a negative interpretation.
As can be seen in (1b), in simple NGT sentences the non-manual negation marker can accompany only the verb it negates, or it can spread over the negated verb's object (1c). Thus, at least the verb should be negated in NGT.\footnote{sometimes it seems as if the non-manual negation marker already starts during, or even before the subject of the negated sentence. However, on closer inspection it turns out that this is just a transitional movement of the head to put the head in the right starting position for the actual onset of the negation marker. Thus, the head first makes one short sideways movement which can easily be mistaken for the commence of the negation marker, whereas the actual start of the marker is right after this transitional sideways movement of the head.} In ASL things are a bit different. As can be seen in (2), in ASL an additional manual negation sign is often used which occurs before the predicate.\footnote{as was already mentioned in chapter 1, the basic word order in ASL is SVO.}

\begin{enumerate}
\item (1) a. MAN \hspace{1cm} POINT\text{left} \hspace{1cm} PRESENT \hspace{1cm} \text{left}GIVE.PRESENT\text{right} \\
\hspace{2cm} The man gives her a present.'

b. MAN \hspace{1cm} POINT\text{left} \hspace{1cm} PRESENT \hspace{1cm} \text{neg} \hspace{1cm} \text{left}GIVE.PRESENT\text{right} \\
\hspace{2cm} The man does not give her a present.'

c. MAN \hspace{1cm} POINT\text{left} \hspace{1cm} PRESENT \hspace{1cm} \text{neg} \hspace{1cm} \text{left}GIVE.PRESENT\text{right} \\
\hspace{2cm} 'The man does not give her a present.'
\end{enumerate}

(NGT)

\begin{enumerate}
\item (2)JOHN \hspace{1cm} NOT \hspace{1cm} BUY \hspace{1cm} TOMATO \\
\hspace{2cm} 'John does not buy tomatoes.'
\end{enumerate}

(ASL; Aaron 1994:80, ex.10)
The combination of a non-manual negation marker and a manual negation particle to express sentential negation can be found in other signed languages as well, e.g. in Argentine Sign Language (Veinberg 1993), British Sign Language (Deuchar 1984), Catalan Sign Language (Pfau & Quer 2003), German Sign Language (Pfau 2002, 2003), and Swedish Sign Language (Bergman 1995) (see Coerts 1992 and Pfau 2002 for more examples of signed languages). It should be noted, however, that in most signed languages the use of the manual negation particle is optional whereas the presence of the non-manual negation marker is obligatory. This is in contrast to NGT where the use of manual negation signs is considered to be part of the sign system NmG (Sign Supported Dutch) by the younger generation of native signers.

In ASL the absolute duration of the non-manual negation marker is dependent on the absence or presence of a lexical negation sign. If a lexical negation is present, the marker appears synchronically with this negation sign (3a), or stretches over the c-command domain of the negation, as in (3b) and (2) above. According to Neidle et al. (2000:45), the sentence in (3a) with a short marker over the negation sign only, receives an emphatic interpretation. If no lexical negation is present, the marker in ASL obligatorily stretches over the predicate and its object, as in (3c).

\[
\text{\underline{neg}}
\]

(3) a. JOHN NOT BUY HOUSE

'John is not buying a house.'

\[
\underline{\text{neg}}
\]

b. JOHN NOT BUY HOUSE

'John is not buying a house.'

Pfau (2003:8) rightly remarks that culture-specific factors can influence the exact realisation of the non-manual marker. Although the headshake is used in many signed languages (among others ASL, British Sign Language, Catalan Sign Language, German Sign Language, Swedish Sign Language), other signed languages (e.g. Greek Sign Language, Lebanese Sign Language, and Turkish Sign Language) use a negative headnod in addition to the headshake.

This is not entirely true for Indo-Pakistani Sign Language where the manual particle can be used without the non-manual marker, too (Zeshan 2000:114), something which to the best of my knowledge has not yet been found in any other signed language investigated to date.
If in a complex ASL-sentence no manual negation sign is present and the non-manual negation marker starts in the first clause, it obligatorily stretches over the second clause, if this second clause is embedded in the first clause. This pattern is expected since the embedded clause lies within the c-command domain of the matrix Neg. An example of this is in (4a). If the second clause is not embedded, the non-manual negation marker does not stretch over this second clause, as in (4b).

(4)  a. \( \text{INDEX WANT, INDEX GO-AWAY} \)
     ‘I didn’t want him to leave.’

     \( \text{neg aff} \)

     b. \( \text{INDEX TELEPHONE, INDEX MAIL LETTER} \)
     ‘I didn’t telephone but she sent a letter.’

     (ASL; Padden 1988:89ff., exx.23, 25)

As already mentioned in chapter 2, in ASL it seems to be the dependency relation between the clauses in a complex sentence that determines the absolute duration of the non-manual negation marker, rather than the other way around. That is, in ASL if one clause in a complex sentence is syntactically embedded in another clause and no manual negation particle is present, the non-manual headshake that negates the event of the main clause obligatorily stretches over the embedded clause. In other signed languages, it might be the case that the non-manual negation marker cannot stretch over clause boundaries, whether or not the relationship between the clauses is one of syntactic subordination. However, on the basis of the results from ASL, I assume that, if the non-manual negation marker of the potential main predicate can stretch over a clause boundary, the second clause must be in the c-command domain of the
matrix clause negation. This means that the syntactic relation between the clauses is subordination.

We will now look at the distribution of the non-manual negation marker in complex sentences in NGT. It will be shown that, as in ASL, the absolute duration of the negation marker can be used as a test to uncover syntactic embeddedness but that, in contrast to ASL, it is not the clausal relationship that determines the absolute duration of the marker, in that spreading of the non-manual negation marker is not obligatory.

5.3 The results for complex sentences in NGT

In NGT it is possible to express the non-manual negation marker during the complement-taking predicate and to extend it over the (semantic) complement clause. This is shown in (5) for all classes of complement-taking predicates investigated here. For example, in (5a) the negation marker starts above the complement-taking predicate *to want* and stretches over the entire complement clause.

(5) a.

```
POINT
WANT
POINT
neg

‘I do not want you to come along.’
```

b.

```
THE.TWO.OF.US
SEE
MAN
POINT
neg

BOOK
STEAL
POINT
neg

‘The two of us did not see that the man stole the book.’
```
c. 

\[\text{POINT}_{\text{signer}} \rightarrow \text{LIKE}, \text{CYCLE}, \text{CONTINUE}\]

'I do not like (the fact) that the cycling takes place.'

d. 

\[\text{THE}_{\text{two}}, \text{OF}_{\text{us}} \rightarrow \text{PRETEND}, \text{JOHAN}, \text{ILL}\]

'The two of us do not pretend that Johan is ill.'

e. 

\[\text{PROFESSOR} \rightarrow \text{KNOW}, \text{GOBLIN}, \text{EXIST}\]

'The professor does not know that goblins exist.'

f. 

\[\text{WOMAN} \rightarrow \text{POINT}_{\text{right}}\]

'\text{BELIEVE} \rightarrow \text{POINT}_{\text{right}}, \text{PREGNANT} \rightarrow \text{POINT}_{\text{right}}\]

'The woman does not believe that she is pregnant.'

g. 

\[\text{POINT}_{\text{signer}} \rightarrow \text{DOUBT}, \text{POINT}_{\text{signer}}, \text{APPOINTMENT}, \text{RIGHT}\]

'I do not doubt that the appointment is right.'
Although the non-manual negation marker in the sentences in (5) stretches over the whole sentence that contains two predicates, there was no negation involved in the second clause. This was quite clear from the informants' own formulations of these sentences. The (potential) complement clauses in (5) thus fall within the scope of the negation, which implies that these clauses are syntactically subordinated (see my assumption in section 5.2 in this chapter).

The only exceptions to this observation are utterance predicates with a direct speech complement. As shown in (6) it is not possible to stretch the non-manual negation marker over the clause boundary in these cases.
This restriction seems obvious because direct speech clauses are themselves sentences, or even better, expressions that are independent of the speech act of the matrix clause (Banfield 1982:39, Dik 1997b:102). Direct speech clauses behave just like main clauses with respect to all kinds of constructions and grammatical processes which are known to be impossible in (embedded) indirect speech clauses. For example, direct speech clauses, but not indirect speech clauses, can consist of exclamations (7a), or imperatives (7b) (see Banfield 1982:28ff. for an exhaustive list).
However, grammatical processes that go beyond the boundary of the direct speech clause, e.g. *wh*-extraction, are blocked in these constructions, as can be seen in the direct speech sentences in (8a-a'). In contrast, such processes are impossible in indirect speech (8b-b').

Another reason for the ungrammaticality of the sentences in (6) might be a semantic-pragmatic one. When judging the sentences that are presented later in this chapter in (12), the informants remarked that it is not possible to quote someone's utterance if it is denied that this utterance is expressed.

From (5) above it can be concluded that in NGT, just like in ASL, the absolute duration of the non-manual negation marker can be used to reveal syntactic embeddedness in complex sentences, though nothing more than that. In particular, the results in (5) do not say anything about the complement status of the subordinated clause. The distributional dependency test showed that semantic complement clauses of the complement-taking predicates *to want, to see, to like, to pretend, to know, to believe, and to doubt* are syntactic argument clauses, see chapter 3. The fact that these syntactic argument clauses fall within the scope of the negation of the main clause corroborates the subordinated status of these argument clauses. However, for the complement-taking predicates *to ask and to tell*, the distributional dependency test could not give a clear result. The potential complement clauses of these verbs can be argument clauses or adjunct clauses. The findings of the non-manual negation test change nothing with respect to this result. It could be established in (5h-i) that the potential
complement clauses of *to ask* and *to tell* are syntactically subordinated, but whether they are argument clauses or adjunct clauses has still not been determined. Additional information is needed to find out what the exact status of these latter clauses is. This information will be given in the next chapter.

Unlike ASL, it does not seem to be the case that in NGT the dependency relationship of the clauses in complex sentences determines the absolute duration of the negation marker. In case the event referred to by the matrix predicate is negated in NGT, this can be done too by expressing the negation marker over the complement-taking predicate only, as can be seen in (9) where examples are given for all investigated classes of complement-taking predicates.

(9) a. INGE POINT_{right} WANT _neg_ ROLAND_{left:back} left:back VISIT_{left:front}

MARIJKE POINT_{left:front}

'Inge does not want Roland to visit Marijke.'

b. INGE signerSEE_{neu.sp} MARIJKE HOUSE signerGO.TO_{neutral.space}

'Inge does not see Marijke going home.'
c.  

\[ \text{INGE} \quad \text{LIKE} \quad \text{MARIJKE} \quad \text{HOUSE} \quad \text{signer GO TO neutral space} \]

'Inge does not like (the fact) that Marijke goes home.'

d.  

\[ \text{TWO OF US} \quad \text{PRETEND} \quad \text{JOHAN} \quad \text{ILL} \quad \text{neg} \]

'The two of us do not pretend that Johan is ill.'

e.  

\[ \text{MARIJKE} \quad \text{POINT right} \quad \text{KNOW} \quad \text{INGE} \quad \text{left} \quad \text{COME right} \quad \text{neg} \]

'Marijke does not know that Inge is coming to her.'

f.  

\[ \text{INGE} \quad \text{BELIEVE} \quad \text{POINT right} \quad \text{neg} \]

\[ \text{POINT signer} \quad \text{signer VISIT left} \quad \text{MARIJKE} \]

'Inge does not believe that I visit Marijke.'
One of the three informants considers sentences as in (10) with the complement-taking predicate *to want* and coreferential subjects for matrix and complement clause ungrammatical. According to her the non-manual negation marker obligatorily has to extend over the complement clause in these constructions. The other two informants, however, can use a negation marker
over the complement-taking predicate only in these constructions, as can be seen in (11).

\[ (10) \]
\[ ^{\text{neg}} \]
\[ \text{POINT}_{\text{addressee}} \hspace{1em} \text{WANT} \hspace{1em} \text{SWIM} \hspace{1em} \text{POINT}_{\text{addressee}} \]

'You do not want to swim.'

(NGT)

\[ (11) \]
\[ ^{\text{neg}} \]
\[ \text{INGE} \hspace{1em} \text{WANT} \hspace{1em} \text{SIGNER}_{\text{visit right}} \hspace{1em} \text{MARIJKE} \]

'Inge does not want to visit Marijke.'

(NGT)

In utterance predicates with direct speech complements it is not possible to use a non-manual negation marker over the complement-taking predicate only (12). This is not so obvious from a syntactic point of view, since the negation marker does not cross a clause boundary here. Apparently, there is a semantic-pragmatic reason for the ungrammaticality of the sentences in (12), because, according to the informants, you cannot quote someone's utterance if you deny that that person expressed that utterance.\(^5\)

\(^5\) Anne Baker suggested that the examples in (12) might be grammatical in contrastive contexts, as in (i). Unfortunately, there has been no opportunity to test this suggestion.

(i) Inge did not ask them: "Are you going home?", but Marijke did.
As well as having a negation marker occurring over the complement-taking predicate only, it is also possible to have a negation marker that is expressed synchronically with the embedded predicate only. In the latter case, it is just the event that the complement predicate is referring to that is negated. In (13) are examples for all classes of complement-taking predicates, including utterance predicates with direct speech complements.
(13) a.  

Inge  point right  want  man  point left

neg  
Present  left give  present right

'Inge, wants the man not to give her, a present.'

b.  

Inge  point right  signer see left  boy  point left

dance  point left

'Inge sees that the boy is not dancing.'

c.  

Like  point signer  right see signer

'I like (the fact) that he does not see me.'

d.  

two of us  pretend  Johan  point left  ILL  point left

'The two of us pretend that Johan is not ill.'
e. Marijke, knows that Inge does not come to her.

f. The man believes that goblins do not exist.

g. Marijke, doubts whether she will not visit her parents.

h. Inge asks me if the two of us are not going home.
Inge asks them: "Are you not going home?"

The girl says that her grandmother is not having her birthday.

The girl says: "My grandmother is not having her birthday."
To express a negation marker over the complement predicate only is not possible with the complement-taking predicate *to want* with coreferential subjects for main and complement clause, as can be seen in (14).

(14)  

\[ \text{‘Inge wants not to visit Marijke.’} \]

Apparently, in complement constructions with the complement-taking predicate *to want* as in (14), the relationship between the predicates is much stronger than in sentences where the complement clause has a different subject than the main clause. In some languages the relationship between the clauses in a complex sentence becomes so strong that the sentence is analysed as clause union (a term from Relational Grammar, Perlmutter 1980) or restructuring (Burzio 1986, Rizzi 1982). In clause union a main clause and a subordinate clause become one clause. This analysis is commonly applied to infinitive constructions in Romance languages. Matthews (1997:55) gives the following example from Italian.

(15)  

\[ \text{La farò venire} \]

\[ \text{her I.will.make to.come} \]

In Italian the sentence in (15) is considered as a single clause that is derived from the complex sentence *I will make she to come*, a main clause that contains a causative verb (*will make*) with a complement clause. In NGT, the complement verb in constructions as in (14) (that are grammatical without the non-manual marker) is not infinite, since the complement clause MARIJKE signerVISIT left can occur on its own as an independent sentence in the right context in which the null subject refers to INGE. Nonetheless, one informant could form sentences
as in (16) where the object of the complement clause is raised to the matrix clause and expressed before the matrix predicate, which is only possible if the two predicates are analysed as one, or at least as having a tighter relationship than between a complement-taking predicate and its embedded predicate.

\[\text{(16)}\]

\[\text{INGE} \quad \text{POINT}_{\text{right}} \quad \text{MARIJK} \quad \text{POINT}_{\text{left}} \quad \text{WANT} \quad \text{RIGHT}_{\text{VISIT}}_{\text{left}}\]

'Inge wants to visit Marijke.'

(NGT)

The other two informants, however, judged sentences as (16) as ungrammatical. For this reason, and in absence of other evidence, I do not want to consider NGT constructions such as the affirmative version of (14), and (16) as clause union yet. But it might be the case that these constructions are currently developing into clause union in NGT.

So far, we have seen three possibilities of the occurrence of the non-manual negation marker in NGT-complex sentences. First, the event expressed by the main predicate can be negated by having the negation marker occurring over this main predicate only. Negation of the event expressed by the main predicate can also be established by spreading the negation marker from the matrix predicate onto the complement clause. Third, negation of the complement event can be established by having a negation marker over the complement predicate. The fourth possibility, negating the main and embedded event is possible, too, in NGT. In this case, each predicate occurs with its own negation marker. Examples for each class of complement-taking predicates are in (17). Thus, in (17a) both the want-event and the visit-event are negated by a separate non-manual marker, which results in a negation of both events in the meaning of the sentence.
(17) a. INGE \textit{do not want} ROLAND \textit{not to visit} MARIJKE.

b. INGE \textit{do not see} the \textit{boy} \textit{not dancing}.

c. INGE \textit{do not like} (the \textit{fact}) \textit{that you do not give her} the \textit{book}.
d. 

\[ \text{TWO.OF.US PRETEND JOHAN ILL} \]

'We do not pretend that Johan is not ill.'

e. 

\[ \text{MARIJKE POINT\_right KNOW INGE leftCOME\_right} \]

'Marijke, does not know that Inge does not come to her.'

f. 

\[ \text{MAN POINT\_right BELIEVE POINT\_right} \]

\[ \text{GOBLIN POINT\_left EXIST POINT\_left} \]

'The man does not believe that goblins do not exist.'

g. 

\[ \text{MARIJKE POINT\_left DOUBT POINT\_left PARENTS} \]

\[ \text{leftVISIT\_right POINT\_left} \]

'Marijke, does not doubt that she, will not visit her, parents.'
h. INGE \POINT_{right} \rightAS_{signer} \POINT_{right} \neg

TWO.OF.US \signer.GO.HOME_{ns} \neg \TWO.OF.US

'Inge does not ask me if the two of us are not going home.'

i. INGE \POINT_{right} \signer.TELL_{ns.usp} \WOMAN \POINT_{left} \neg

\POINT_{right} \CAT \GONE \neg

'Inge, does not tell the woman that her, cat is not gone.'

(NGT)

Since the informants judged that it is not possible to quote an utterance if it is denied that that utterance is expressed in the first place (see (12) above), double negation is not possible with utterance predicates that are followed by a direct speech complement, as shown in (18).
Another exception to this fourth possibility of non-manual negation marking in complex NGT-sentences are complement constructions with *to want* and coreferential subjects in both clauses, as can be seen in (19). This is not at all strange in view of the discussion of (14) above, which has shown that in such sentences there might be a tighter relationship between the matrix verb and its complement predicate.
As shown above, the non-manual negation marker headshake in NGT can occur in different positions in complex sentences which results in different meanings. First of all, the non-manual marker can occur over the matrix predicate only. In this case, the event of the matrix clause is negated. The same meaning is obtained if the marker spreads from the matrix clause predicate over the complement clause. The headshake can also accompany the complement clause predicate only in which case the complement predicate is the only one that is negated in the meaning of the sentence. Finally, a combination of negation is possible too, that is, two separate negation markers occur in a complex sentence, one above the matrix clause predicate and one above the complement clause predicate. In this latter case both matrix and complement events are negated.

If the headshake spreads from the matrix clause to the complement clause, it must be concluded that the complement clause is syntactically embedded under the matrix clause, otherwise this extension would not be possible. Hence, the non-manual negation marker can be used in NGT to reveal syntactic subordination.

5.4 Analysis

Negation in ASL is analysed by Neidle et al. (2000) in the following way (20). Neidle et al. assume a NegP directly above VP, because the manual negation sign, that is the negation particle, precedes the verb (see example (2) above). Manual tense markers in ASL are not in the scope of negation (Neidle et al. 2000:80). Therefore, the NegP is situated below TenseP.

\(^{6}\) The structure given in (20) is simplified. The projections AspP, AgrsP, and AgroP intervene NegP and VP (Neidle et al. 2000:3).
Neidle et al. further assume that V does not raise to Neg. Furthermore, the non-manual negation marker is the overt realisation of the syntactic feature [+neg]. According to Neidle et al. the head Neg is filled with [+neg], and optionally with the negation sign NOT. The non-manual negation marker obligatorily attaches to lexical material. So, if NOT is present in Neg, the marker attaches to NOT and can occur over this negation sign only, as in (21a). Optionally, the non-manual marker can spread over the lexical material that is in the c-command domain of [+neg], see (21b). If NOT is not present, there is no lexical material in Neg for the non-manual marker to attach to. In order for the sentence not to become ungrammatical, the marker attaches to the lexical material in VP that is in the c-command domain of [+neg], as in (21c).

(20) TenseP
    spec Tense' 
      Tense NegP
        spec Neg' 
          Neg [+neg] (NOT) 
            VP 
              V DP

(21) a. JOHN [NegP [Neg NOT] [VP BUY HOUSE]]
    ‘John is not buying a house.’

    neg

b. JOHN [NegP [Neg NOT] [VP BUY HOUSE]]
    ‘John is not buying a house.’
In this analysis of negation it is immediately clear why the non-manual negation marker obligatorily spreads over material to its right in the absence of a manual negation sign, and why it is not only the verb that the negation marker cooccurs with, but rather everything that the [+neg] feature c-commands, thus the verb and its object, even if this object is a complement sentence.

I have shown in the former section that negation in NGT is different from negation in ASL. First of all, negation is established only by a non-manual negation marker and not by a negative particle. The marker in NGT is attached to the predicate and optionally stretches over the predicate's object. It is because of this optionality of the spreading of the non-manual marker that Neidle et al.'s analysis of negation in ASL cannot be applied to NGT.

In DGS and Catalan Sign Language (LSC, Llengua de Signes Catalana) the same kind of optional spreading of the non-manual negation marker as in NGT is observed (Pfau 2002:287, 2003:14, Pfau & Quer 2003). In the same articles it is stated that both DGS and LSC are underlyingly SOV.7

7 The spreading of the negative headshake onto the object has interpretive consequences in LSC where it yields a contrastive reading 'Santi does not eat meat, but fish he does' (p.c. Josep Quer).
(23) a. SANTI MEAT EAT

   neg

   b. SANTI MEAT EAT

   ‘Santi does not eat meat.’

   (LSC)

However, DGS and LSC are unlike NGT and resemble ASL in that they make use of an optional negation particle, a manual sign, which in contrast to ASL occurs in sentence-final position. The two European signed languages differ from each other in that in LSC the non-manual marker can be combined with the negation sign only (24), whereas this is not possible in DGS (25).

   (24) a. SANTI MEAT EAT NOT

       neg

       b. SANTI MEAT EAT NOT

       ‘Santi does not eat meat.’

       (LSC)

   (25) a. *MOTHER FLOWER BUY NOT

       neg

   b. MOTHER FLOWER BUY NOT

   ‘Mother is not buying a flower’

   (DGS)

Pfau & Quer (2003) give a unified account for the three signed languages DGS, LSC and ASL (see also Pfau 2002, 2003). First of all, they adopt Neidle et al.’s analysis for ASL. They further assume that [+neg] in DGS and LSC is not a syntactic feature, as it is in ASL, but rather an affix as in Turkish for example (see Pfau 2002 and 2003 for examples), thus, a morpheme. The affix is seen as a featural affix without phonological content (cf. Akinlabi 1996) that triggers a prosodic alteration of the base form to which the affix is attached (in this case the predicate is expressed with a headshake). This is in line with
current ideas in which many non-manual facial markers are considered to have a prosodic function in signed languages that can be compared to intonational contours in spoken languages (Nespor & Sandler 1999; Sandler 1999; Wilbur 2000; see also fn. 3 in the gloss conventions).

Pfau & Quer claim that the negation affix occupies the head Neg of the projection NegP. In LSC the manual negation particle optionally occupies Neg as well, whereas in DGS the particle is located in spec,NegP. This latter assumption can explain the difference in grammaticality between (24a) and (25a). If no manual material, i.e. the negative particle, is present in Neg, the Stray Affix Filter, that requires that every affix attaches to a host (Baker 1988:140), triggers V-to-Neg raising in DGS and LSC and results in (22a) and (23a) with the negation marker accompanying only the predicate. V-to-Neg raising thus always occurs in DGS (25), because the negation particle is located in spec,NegP. Whereas in LSC the verb does not have to raise to Neg if the negation particle is present in Neg, and a headshake accompanying the negative particle only is grammatical (24a). The relevant structure for DGS and LSC is in (26) (from Pfau & Quer 2003).

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(26)

\[ \text{NegP} \]

\[ \text{spec} \]

\[ \text{(DGS particle)} \]

\[ \text{Neg} \]

\[ \text{spec} \]

\[ \text{spec} \]

\[ \text{Tense}^1 \]

\[ \text{[+neg]affix} \]

\[ \text{(LSC particle)} \]

\[ \text{VP} \]

\[ \text{Tense} \]

\[ \text{V'} \]

\[ \text{DP} \]

\[ \text{V} \]

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Pfau & Quer (2003) assume that the negative particle NOT in DGS is lexically specified for headshake.
In ASL [+neg] cannot be an affix because V-to-Neg raising is blocked, as can be seen in example (27).

(27) *JOHN [Negv [BUY] [VP HOUSE]]

'John is not buying a house.'

(ASL)

By analysing [+neg] as a prosodic feature Pfau (2002, 2003) can account for the spreading of this feature across word boundaries (see (22) and (23)). He compares the spreading of headshake with external tone sandhi phenomena in tonal languages like Setswana (spoken in South Africa and Botswana) and Tsonga (a Bantu language spoken in Mozambique and South Africa) (see Pfau 2002, 2003 for examples).

The analysis of Pfau (2002, 2003) and Pfau & Quer (2003) can be adopted for NGT. As in DGS and LSC the spreading of the non-manual marker headshake is optional in NGT. This means that the spreading is not syntactically determined, as opposed to ASL, and that [+neg] can therefore be analysed as a featural affix that occupies the head Neg of NegP. Since NGT has no negative particle, neither Neg nor spec, NegP is filled with manual material. V-to-Neg raising is triggered then, as a result of the Stray Affix Filter. This results in a headshake obligatorily accompanying the predicate which can optionally spread onto the object of the predicate. The relevant structure for NGT is in (28).
As can be seen in structure (28), I leave open whether the object is base-generated pre- or post-verbally. It was already shown in example (7a) in chapter 1 that objects in NGT can occur pre-verbally and post-verbally without there being any difference in meaning. Since in NGT aspect rather than tense is expressed by an affix on the predicate (Schermer & Koolhof 1990), I assume an AspP above VP, where the verbs obligatorily moves to, to check its aspect feature. If this assumption is right, it is of no consequence whether the object is base-generated before or after the verb in VP. To derive the SVO order no further movement of the object is needed, since V already moved to a position before O, namely to the head Asp. To derive the SOV order the object has to move to spec,AspP from both base-generated positions. Therefore, I adopt the structure in (28). Of course, more research needs to be done, just as more data

9 In the grammar of one informant specificity in meaning with respect to the position of the object seems to play a role with one verb only, namely with the complement-taking predicate to want. The signer considers sentence (a) with SVO order as grammatical. A sentence with to want and the object in preverbal position is judged as grammatical only if the object is specific. This is done in (iic) by using a POINT sign that functions as demonstrative pronoun which becomes clear from the meaning of this sentence (only the glosses are given in (i)).

(i) a. POINTsigner WANT COFFEE
   "I want coffee."
b. *POINTsigner COFFEE WANT
c. POINTsigner COFFEE POINT right WANT
   "I want this/that coffee."

10 It seems to be the case that children acquiring NGT as their native language use as many OV as VO orders in the two-sign-stage (p.c. Carola Rooijmans).
need to be collected to confirm the movement of V to higher functional projections in NGT.

5.5 Conclusion
In NGT, the main clause negation marker does not have to extend over the embedded clause obligatorily, as was shown in (9). In this respect NGT differs from ASL where it is obligatory for the headshake to extend over all the signs in a complex sentence, including the complement clause, that fall within the scope of the matrix predicate negation. Negation in NGT, therefore, has to be analysed differently from negation in ASL. The analysis of Pfau & Quer (2003) for negation in DGS and LSC, in which [+neg] and its phonological realisation as a headshake is a featural affix rather than a syntactic feature, is adopted for NGT. By considering [+neg] as an affix, it is possible to explain why the non-manual negation marker in NGT optionally spreads over its object, which can be a DP or a complement clause.

Although the main clause negation marker does not stretch over the embedded clause obligatorily, the absolute duration of the non-manual negation marker can be used in NGT as a diagnostic for syntactic embeddedness. If this marker spreads from the matrix predicate onto the second clause, this second clause must be in the c-command domain of the matrix clause, and hence, be subordinated to it. With the aid of the absolute duration of the non-manual negation marker I have shown that the potentially embedded clauses with the complement-taking predicates to want, to see, to like, to pretend, to know, to believe, to doubt, to ask and to tell are syntactically subordinated.

However, the argument status of these syntactically subordinated clauses has not been established yet. Since NGT is a pro-drop language, it could still be the case that a null referential pronoun saturates the argument structure of the investigated complement-taking predicates in which case the subordinated clauses are not complement clauses but adjunct clauses.