# Elke Nowak Relating Propositions Subordination and Coordination Strategies in a Polysynthetic Language

#### 1. Introduction

This paper discusses the relationship between the morphological structure of language and its syntactic structure. Although it is primarily a single language which is analysed in detail, namely, Inuktitut, an Eskimo language of the Canadian Eastern Arctic, the findings seem to be of general relevance.

Since the discussion touches upon very basic assumptions, it is necessary to outline the general setting and recapitulate what might be viewed as shared knowledge. I will begin by briefly re-examining the notion "ergativity" and its discussion with respect to Eskimo² languages. Taking the highly disturbing results of this discussion as a point of departure, I will argue for their reinterpretation from a morphological perspective, and I will base my arguments on the possibility of syntactic nonconfigurationality as it was first suggested

<sup>&</sup>lt;sup>1</sup> Inuktitut is spoken in the Canadian Eastern Arctic, namely, the Baffin Region and the Keewatin, in the eastern Central Arctic, and in Arctic Quebec. It is closely related to Labrador Inuttut and Inuvialuktun, which is spoken in the Canadian Western Arctic. The total number of speakers is approximately 25,000. See also Nowak 1996b.

<sup>&</sup>lt;sup>2</sup> I prefer to use the term Eskimo: *Inuit* does not cover all the peoples, and would not be accepted as a general term by them. "Eskimo" is an alien term, yet it was imposed equally on all the peoples from Bering Strait to Greenland. Moreover, I have heard such a preference voiced a number of times by Inuit, Inuvialuit, Yuit, and others, the only possible exception being Greenlanders.

by Hale (1983) and further elaborated by Jelinek (1984, 1989, 1994).

In doing so, I will reinterpreted long prevailing "irregularities" in the description of Inuktitut, and suggest a homogenous interpretation. Finally, I will hypothesize a general relationship between syntactic non-configurationality and polysynthesis.

In its origins this paper goes back to the year 1996. Of course, there has been a considerable progress in discussion since then - discussion with respect to the opinions expressed here, progress in terms of research accomplished. I will attempt to include as much as possible without creating an entirely new paper.

## 2. The Background

The shift in focus to syntax, its structure, or as some put it, its principles and parameters fostered the detailed analysis of the traditional target languages of linguistic investigation, i.e., the Indo-European languages. While the terminology and approach differ widely from those of traditional grammar, structuralist and prestructuralist, and differ equally within the different approaches today, there seem to be shared assumptions so fundamental that over the years (if not to say centuries) they have passed unchanged from one paradigm to the next. The assumption of central relevance here is that concerning the very nature of syntax: syntax is viewed as being 2structured, as opposed to being

merely concatenative. The systematic and rule-governed grouping into hierarchically and categorially distinct constituents is functional; Humboldt's famous statement that language makes infinite use of finite means is just a characterization of this fact: even with the finite means provided by what is called the lexicon any speaker is ever able to produce new utterances. Consequently, syntax is generally viewed as the part of language which provides the means for such creativity. The other form-giving components of language are not equally productive, but primarily feed syntax.

As compared to the historical depth of the science of language, it has been only recently that traditional notions such as "subject" and "object" were recognized as not being primitives, but as being multilayered, covering a very special, if not to say idiosyncratic arrangement of component parts. This arrangement is not fulfilled equally by all languages, and consequently it seemed wise to decompose the notions and differentiate between the syntactic layer, i.e., the position in the hierarchy, the morphological layer, i.e., features such as case marking or agreement, and a semantic layer, i.e., the structural and/or lexical layer of semantic readings, filled by semantic roles. Having sorted out the different layers, it then was a natural next step to recognize the fact that languages might exhibit an arrangement decidedly different from the one traditional grammar was familiar with. During the last decades considerable effort has been put into the investigation of just these different patternings, well known as the "ergativity 3debate." I will not go into this debate in depth again here, but take it as a point of departure for my reflections. It is of fundamental importance to keep in mind that the notion of ergativity itself is firmly based on, even dependent on the assumption mentioned above, namely, that syntax is not just a chain of elements but structured in a rather specific way. This assumption covers two more. The first one claims that the fundamental parts of a proposition4 - referential expressions on the one hand, predicating expressions on the other - are distributed over distinct form classes. Only members of a specific lexical class may successfully fill the appropriate syntactic slot. There is an immediate and necessary correspondence between the distinction of lexical classes on the one hand and the distinction of syntactic slots on the other. Thus it is excluded that a lexical item belonging to the "wrong" class might be inserted into a specific syntactic slot: a noun cannot become the head of a verbal phrase and vice versa. Distinct lexical classes are a prerequisite for a structured syntax.5

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<sup>&</sup>lt;sup>3</sup> For a detailed discussion of ergativity in Inuktitut and related languages, as well as a comprehensive bibliography, see Nowak 1996a.

<sup>&</sup>lt;sup>4</sup> I borrow the term "proposition" from speech-act theory, and I will use it in exactly this sense: the semantic content, stripped of its formal "body," i.e., the syntactic and/or morphological form it receives in an utterance in a specific language or type of languages.

<sup>&</sup>lt;sup>5</sup> This does not of course exclude the fact that the categorial status of a lexical unit may be converted: whether can is nominal or verbal cannot be decided without a syntactic setting; within the setting there is no doubt about the categorial status. Compare I don't like canned food, Cans are easy to transport, She used to can meat, and so on. Such conversion processes are espedially frequent in English but are much less frequent in German, a fact which might motivate

The other presupposition states that there must be a noun phrase hierarchy. Syntax provides the frame for the meaningful arrangement of constituents via rule-governed ranking and grouping of distinct constituents.

The notion ergativity firmly rests on these assumptions, they are logically prior to it. The ergativity debate by no means questions the understanding of syntax sketched above - it merely discusses different arrangements of the component parts, the input provided by the morphology and/or the semantic component into such a syntactic pattern. In this discussion, the fact that the verbs of any language do not exhibit a uniform argument structure is only of secondary interest: it is the framework provided by syntax which is under consideration. 6

If we reconstruct the ergativity debate from its beginnings, it is quite clear that it is exclusively concerned with the question of how the component parts can be arranged, paying special attention to the position highest in the hierarchy and the features possibly assigned to it. It must be added that very early in the debate, e.g., in the discussion of noun phrase hierarchies by Keenan and Comrie (1977, 1979), as well as by Plank in his introduction to the anthology of 1979, the importance of the assumption that there can only be a single highest position is emphasized. This of course follows

further speculations. They are impossible in Inuktitut, with the exception of a handful of weather expressions.

<sup>&</sup>lt;sup>6</sup> Consequently, the debate surrounding so-called ergative verbs in languages like German is rather beside the point and should not be confused with a typological investigation of ergativity. For an exhaustive <sup>5</sup> statement, see Dixon 1996:18-22.

directly from the notion of hierarchy itself - as opposed to the structure I would like to call "chainlike."

3. Investigating syntactic structures in Eskimo languages
With respect to the investigation of Eskimo languages, it must
be stated that they have received considerable attention
during the last decade. Most interesting is the fact that
investigations focusing on the question of ergativity and the
syntactic structure of one or the other languages such as
Greenlandic (Kalaallisut) or Inuktitut, do not achieve a clear
result: closer investigation of noun phrase hierarchies in
Inuktitut fails to conclusively determine which noun phrase is
the "highest in the hierarchy." Features are distributed over
two possible candidates, both of which are cross-referenced
within the verbal complex.

This result is rather disturbing. Even if one argues that additional tests might alter this picture of equilibrium in favor of the one noun phrase or the other, this would not help much: the tests employed are at the heart of syntactic structure<sup>8</sup> and cannot be marginalized. The contradictory results they produce would remain.

In the next paragraphs I will reconstruct the investigation of

<sup>&</sup>lt;sup>7</sup> Cf. Nowak 1996a:191-236. These results are supported by the findings of Bittner 1988, Johns 1987 and Bok-Bennema 1991. The features scrutinized are: agreement and case marking, passive, antipassive, reflexivity, incorporation; coordination, relative clause formation and so called anaphoric coreference. For an introduction into the structure of Inuktitut see Nowak 1996a: 21-49.

<sup>&</sup>lt;sup>8</sup> See, e.g., Keenan's famous list of criteria concerning a "universal definition of subject" (Keenan 1976).

relative clauses, coordinate sentences, and what is called anaphoric coreference in the investigation of Inuktitut.

Seen from a different perspective, these tests, being originally designed for the investigation of syntactic ergativity, point to a much more fundamental difference in the structural outline of Inuktitut. They further substantiate the claim that Inuktitut is syntactically non-configurational.

#### 4. "Relative clauses" in Inuktitut

Subordinate and coordinate clause constructions are generally considered to constitute an essential part of syntax at large-as manifestations of syntactic complexity and productivity.

In language typology both play a major role in determining noun phrase hierarchies, and both are interpreted as indicators of syntactic pivots in the determination of syntactic ergativity.

Consequently, in the discussion of syntactic patterns of Eskimo languages, relative clause formation has raised some interest. Although there is some variation in interpretation, the basic result is clear: in the matrix clause, the noun phrase marked with the ergative case can never be the point of reference of a relative clause, This terminology is the

<sup>&</sup>lt;sup>9</sup> Since I will question the better part of the terminology employed shortly, this phrasing has to be taken as concession to the reader forced by the present stage of argumentation. The designations "intransitive" and "transitive" respectively refer exclusively to the number of participants indicated: intransitive inflection indicates one participant, transitive inflection indicates two, strictly excluding reflexive relations. Intransitive inflection cross-references the absolutive case, transitive inflection the ergative and absolutive case, if there are <sup>7</sup> overt nouns at all.

traditional one; for a detailed discussion of its inherent and inherited problems, see Nowak 1996a:95-151. a result which is taken as evidence for Inuktitut being syntactically ergative. But this result is by no means as convincing as it seems to be. Relative clause formation, if it can be interpreted as such at all, is possible only in a most elementary form, such as in (1) and (2):

#### (1) nutaraq aanniaqtuq siniktuq

## (2) takuvunga nutaramik aanniaqtumik

nutara(q)-mik aanniaq-tu(q)-mik
see-1SG.itr.ind child-obj sick-3SG.itr.nompart-obj
I see the child [it is sick]-obj

'I see the child who is sick'/ 'I see the sick child'

As can easily be seen, (1) is primarily a succession of two intransitives, aaniaqtuq, 'he/she/it is sick', and siniktuq, 'he/she/it sleeps', with no indication of relativizing, subordination, or the like. To mention who the person is, i.e., nutaraq, 'the child', in (1), is by no means obligatory. Only if the discourse calls for it, are such lexical specifications made. Although there are lexical pronouns, they are never employed in such contexts, but only in answers to questions and in highly emphatic expressions. There are no simple third person

8 pronouns, but a wide variety of demonstratives.

Consequently, there is no

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lexical pronoun in (2).10

As compared to (1), (2) is more complex and interesting, since an additional noun phrase is introduced, which is not coreferent with the argument expressed morphologically in the verbal complex. 11-tuq; in (2) 1SG.itr.ind, -vunga. The noncoreferent argument in (2) is of course nutaramik aaniaqtumik, '[the child is sick]-obj'. With respect to the ergativity debate and the claim that there are relative clauses in Inuktitut, the fact that sentences of this type are the only ones readily accepted by native speakers is most important. These sentences side-track the ergativity question, since the ergative is excluded from intransitive sentences. Ergative marking may only be used in cross-referencing a noun with a transitive verbal complex, as in (3):

(3) iliniaqtitsijiup nutaraq takujanga iliniaqtitsiji-up nutaraq-ø taku-janga teacher-ergi child-absjsee-3SGi.3SGj.tr.ind the teacher the child he sees it

'The teacher sees the child'

All constructions aiming at the joining of one or even two transitives, i.e., expressions containing a morphological argument relating to a lexical ergative, turn out to be unacceptable for native speakers. Attempts

<sup>&</sup>lt;sup>10</sup> I will return to a detailed discussion of (2) in section 8. It may seem to be a bit redundant to speak of "lexical pronouns," and in fact it is. But in light of the rather unfortunate term "pronominal argument", which in fact refers to "morphological arguments", i.e., arguments exclusively realized in morphological form, it seems to be necessary to emphasize the difference.

 $<sup>^{11}</sup>$  The morphological arguments  $^{9}$ in (1) are 3SG.itr.nompart,

to coordinate transitives syntactically, as in examples (4) and (7) below, are not natural for native speakers but are clearly set up on the pattern of, say, English sentences. While (4) and (7) are at the fringe of acceptability, 12 (5) and (6) are simply out of question.

# (4) ? iliniaqtitsiji nutaraup takujanga anijuq

iliniaqtitsiji-ø	nutara(q)-up	taku-janga	ani-juq
teacher-abs	child-erg	see-3SG.3SG.tr	go.out-
			3SG.itr.
			nompart
the teacher	the child	3SG sees 3SG	3SG goes out

iliniaqtitsiji the teacher<sub>abs</sub> anijuq goes out

[nutaraup (iliniaqtitsiji) takujanga]
[the childerg (the teacherabs) iterg sees himabs]

(5) \* iliniaqtitsijiup nutaraq takujanga titirauti nakattanga

iliniaqtitsiji-up nutaraq-ø taku-janga titirauti-ø teacher-erg child-abs see-3SG.3SG.tr.ind pencil-abs

nakat-tanga break-3SG.3SG.tr.ind

[iliniaqtitsijiup nutaraq takujanga] [the teacher $_{\rm erg}$  the child $_{\rm abs}$  he $_{\rm erg}$  sees it $_{\rm abs}$ ] the teacher sees the child

[(iliniaqtitsijiup) titirauti nakattanga]
[(the teacher<sub>erg</sub>) breaks the pencil<sub>abs</sub>]
(the teacher) breaks the pencil

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<sup>&#</sup>x27;the child sees the teacher who goes out'

<sup>&#</sup>x27;the teacher the child sees goes out'

 $<sup>^{12}</sup>$  This fringe indicates the fact that consultants, being polite and being pressed, would finally agree that such an expression might be not altogether and utterly wrong.

(6) ??? iliniaqtitsijiup takujangata nutaraup titirauti nakattanga

iliniaqtitsiji-up taku-jangata nutara(q)-up
teacher-erg see-tr.Poss.3SG.erg child-erg

titirauti-ø nakat-tanga

pencil-abs break-3SG.3SG.tr.ind

[iliniaqtitsijiup takujangata]
the teacher "his seeing - it"

[nutaraup titirauti nakattanga] the child<sub>erg</sub> the pencil<sub>abs</sub> it<sub>erg</sub> breaks it<sub>abs</sub>

??? 'the teacher sees the child who breaks the pencil'

(7) ??iliniaqtitsijiup takujanga nutaraq titirautimik nakatsijuq

iliniaqtitsiji-up taku-janga nutaraq-ø teacher-erg see 3SG.3SG.tr child-abs

nutaraq titirauti-mik nakat-si-juq

child-abs pencil-obj break-ap-3SG.itr.nompart

[iliniaqtitsijiup takujanga nutaraq] the teacher  $_{\text{erg}}$  he sees it the child  $_{\text{abs}}$ 

[nutaraq titirautimik nakatsijuq] the child<sub>abs</sub> the pencil<sub>obj</sub> it breaks (s.th.)

'the teacher sees the child who breaks a pencil'

The reason for the unacceptability is quite obviously the succession of verbal complexes inflected in a so-called matrix

mood. 13 Since matrix moods lack a feature indicating a possible

These are basically the indicative and the so-called nominal participle; their status is controversial, but this controversy is not of importance here. For a detailed discussion, see Nowak 1996a: 95-151, 173-192. A corresponding differentiation in transitive inflection seems to be of no further significance at all. ¹¹n addition, there are interrogative, imperative and negative paradigms, transitive

connection with other verbal complexes, a succession of them has merely additive character: for a listener these sequences are not interconnected and consequently do not constitute a coherent discourse. If the inherent arguments of the verbal complex, its morphological arguments, are realized overtly, by lexemes, this does not yield an improvement. On the contrary: although the relation of an inflected verbal complex to overt nouns (if there are any) within a simple sentence is quite clear because of the very rigid linking process which is traditionally interpreted as structural case marking, this is no longer the case when several clauses or sentences are involved.

So far we can state that the syntactic capacities of Inuktitut seem to be rather limited, the joining of clauses quite obviously not being a regular procedure in the language.

Attempts at constructing more complex sentences than the ones exemplified in (1) and (2) fail. Why should this be so? If we separate (4) to (7) into their component parts, all of them are perfectly wellformed and acceptable in isolation. So the question must be, how is the joining of several sentences accomplished? And what are the conclusions to be drawn?

#### 5. Subordination

The correct alternatives to (4) to (7) immediately suggested by the consultants are presented here as (8) and (9).

(8) angutiup iliniaqtitsiji taku**janga** titirautimik nakatsi**tillugu** 

anguti-up iliniagtitsiji-ø taku-janga

man-erg	teacher-abs	see-3SG.3SG.tr.ind
the man <sub>erg</sub>	the teacher <sub>abs</sub>	$he_{erg}$ sees $him_{abs}$

titirauti-mik nakat-si-tillugu
pencil-obj break-ap-4SG.itr.part
the pencil he (the teacher) breaking

# (9) angutiup iliniaqtitsiji taku**janga** titirautimik nakatsi**tsuni**

anguti-up	iliniaqtitsiji-ø	taku- <b>janga</b>
man-erg	teacher-abs	see-3SG.3SG.tr.ind
the $man_{erg}$	the teacher $_{ m abs}$	he <sub>erg</sub> sees him <sub>abs</sub>

titirauti-mik
pencil-obj
the pencil
nakat-si-tsuni
break-ap-3SG.itr.part
he (the man) breaking

In order to establish a relationship between two verbal complexes, it is imperative to employ one of the three "dependent moods," i.e., the verbal participle, the causative, 14 and the conditional mood, which are capable of specifying the existence or nonexistence of a relationship to other verbal complexes. These inflectional devices contain a feature [+relating] in addition to the person marking and the semantic aspects specifying the nature of the relationship - a cause or reason, even in a very abstract understanding (causative mood), a condition (conditional mood) and, most frequently used, a simultaneity of events or actions (verbal

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<sup>&#</sup>x27;the man sees the teacher (who) break(s) the pencil.'

<sup>&#</sup>x27;breaking the pencil the man sees the teacher'

The so-called causative mood constitutes a causal connection, as can be seen in (16), (18), (24), (25), (26) below. It is not to be confused with the causative affix -tit-which indicates the fact that someone is prompted to carry out an action.

participle). With respect to the participants involved, the relation of first and second persons is unambiguous, but third persons need some clarification, 15 which is accomplished by the distinction of so called fourth (indicating nonidentity, disjoint reference) versus third person marking (indicating coreference). This differentiation is also shown in (8) and (9). Sentence (8) exemplifies disjoint reference and its identification by the so-called fourth person -tillugu; (9) shows coreference between the matrix and the related proposition, so that in (9) it can only be the man who simultaneously "sees" and "breaks." The existence of these "moods" and their effect is well known and has been discussed under the heading of "anaphoric coreference."

With a last glance at the ergativity debate, we may state that examples (8) and (9) demonstrate the ergative noun phrase to

examples (8) and (9) demonstrate the ergative noun phrase to be the exclusive point of reference in a transitive sentence.

But, with a glance at the arguments to come, it must be emphasized that such a noun phrase is by no means obligatory:

(8') takujanga titirautimik nakatsitillugu

taku-janga titirauti-mik nakat-si-tillugu see-3SG.3SG.tr.ind pencil-obj break-ap-4SG.itr.part

and

(9') takujanga titirautimik nakatsitsuni

taku-janga titirauti-mik nakat-si-tsuni

<sup>&#</sup>x27;s/he sees him/her breaking the pencil'

<sup>&</sup>lt;sup>15</sup> It must be noted that pure transitive person marking never has a reflexive reading; the two participants involved are never coreferent. *takujanga* in (8) and (9) can under no circumstances be interpreted <sup>14</sup> as "he/she sees himself/herself".

see-3SG.3SG.tr.ind pencil-obj break-ap-3SG.itr.part
'breaking the pencil s/he sees him/her'

Versions (8') and (9') would be just as correct as (8) and (9), in fact, they would be much more likely.

Let us summarize the discussion so far.

The investigation of what is claimed to be relative clause formation is fully adjusted to the ergativity debate, to the extent that data seem to have been specially prepared for the task. The fact that it is very hard indeed to pinpoint anything close to relative clause formation goes unheeded. The alternatives suggested by native speakers are not unknown, but they are discussed from a completely unrelated perspective, namely, as "anaphoric coreference." Here again, the primary interest is the determination of ergativity.

The relative clause test and the investigation of so-called anaphoric coreference show contrary results with respect to the identification of a head noun: while the antecedent of a relative clause is invariably a zero-marked noun (absolutive) as in (1) and (2), it is the ergative noun phrase in a transitive sentence which is the antecedent of anaphoric coreference, as in (8) and (9). What these bewildering results really show is that syntactic ergativity is not a possible analysis for Inuktitut: syntactic pivots cannot be established in any meaningful way. This is further backed by the results of other tests such as passive, antipassive, reflexivity, or

 $<sup>^{16}</sup>$  Creider 1978; Smith 1984. For discussion see Nowak 1996a:221-230.

incorporation.<sup>17</sup> Qualities assigned to "the noun phrase highest in the hierarchy" are equally distributed over two candidates - a fact clearly pointing at a flat, nonhierarchical syntactic structure. So the next step will be to take these results as point of departure for a different approach to the language.

# 6. Coordination

As has been shown in the foregoing, the only way to relate two propositions in order to achieve a complexe utterance seems to be by morphological means, not by syntactic ones. This needs further investigation, however.

Next we consider coordination of two simple sentences like (10) and (11). An attempt at coordinating the two by adding amalu, 'and', fails.

# (10) angut anijuq

angut-abs ani-juq

man go.out-3SG.itr.nompart.

the man he goes out

'the man goes out'

#### (11) takuvanga

taku-vanga

see-3SG.3SG.tr.ind

's/he sees him/her'

#### (12a) ??? angut anijuq amalu takuvanga

 $<sup>^{\</sup>mbox{\tiny 17}}$  For a detailed discussion of these tests, see Nowak 1996a: 191-236.

???the man goes out. And. S/he sees him/her.

Thinking along the lines of syntactic configurations again, we expect to be able to establish a pivot and to omit a "shared argument" and still interpret coreference. But in Inuktitut this is simply not possible; sentence (12a) cannot be interpreted, it is an utterance totally enigmatic to native speakers. 18 A speaker of Inuktitut is just not able to identify what in English would be systematically empty argument positions, as in infinitives or coordinate constructions. Let us recapitulate the significance of empty argument positions in familiar western European languages. If the inflectional endings containing the person marking had the same status as in, say, French or German or any other syntactically configurational language exhibiting inflection, they would obligatorily relate to argument positions outside the verbal complex, to be potentially occupied by nouns (noun phrases) creating the well-known syntactic configuration widely considered to be basic. Within such a structure19 positions may remain empty under well-defined conditions. Such is the case with shared arguments, one of which may be dropped, utilizing the significance of the syntactic structure itself. This is the case in coordinate constructions or infinitives. The postulation of empty positions is only

<sup>&</sup>lt;sup>18</sup> The data presented here were discussed with a large number of people, all of them competent speakers of Inuktitut, coming from different regions of Baffin and belonging to different age groups.

<sup>&</sup>lt;sup>19</sup> The reader should keep in mind that the notion "structure" implies a meaningful ordering, i.e., the significance of distinct positions and asymmetry. To think of an "arbitrary" order would be a contradiction.

justified if the positions are recoverable. This is not the case with respect to Inuktitut. The only conclusion possible is that there are no such empty positions. It must be further concluded that structural argument positions outside a verbal complex are not in existence in Inuktitut.

Looking now at the alternatives (12b) and (12c) immediately suggested as correct by the consultants, we find a situation familiar from the relative clause discussion: coordination is as much accomplished by "mood" as was relative clause formation. Of the three different moods available, it is the verbal participle, indicating a simultaneity, a parallelism of several predications, which is employed.

(12b) ani**tillugu** angutiup taku**vanga** ani-tillugu angut(i)-up taku-vanga go.out- $4_i$ SG.itr.partman -erg; see- $3_j$ SG.3SG $_{(i)}$ .tr.ind

(12c) ani**tsuni** anguti**up** taku**vanga**ani-**tsuni** angut(i)-**up** taku-**vanga**go.out-3<sub>i</sub>SG.itr.part m man-erg<sub>i</sub> see-3<sub>i</sub>SG.3<sub>i</sub>SG.tr.ind

#### 7. Functional Categories

If we next look for typical prerequisites for the creation of syntactic configurations in the shape of functional categories such as complementizers, auxiliaries, and prepositions, we remain utterly disappointed as far as Inuktitut is concerned: there simply aren't any on 18the lexical level. Although

<sup>&#</sup>x27;the man sees him/her going out'

<sup>&#</sup>x27;going out the man sees him'

there are two conjunctions (uvva 'or', amalu 'and'), neither is employed in a fashion comparable to, let us say, English. Recall the dilemma of (12a), above. Both (10) and (11), which are perfectly grammatical, establish full propositions: inflection in a matrix mood constitutes not just a verbal complex containing an agreement marker, but a fully fleshed proposition, the arguments being expressed morphologically. None of these arguments can ever be omitted. 20 Since this is so, these propositions cannot relate to other propositions via empty syntactic positions (PRO-): native speakers cannot identify "shared arguments" via empty syntactic positions and pivoting, because there simply are no empty slots which bear any systematic significance as argument positions. Consequently, amalu 'and' cannot not have the same capacities conjunctions in other languages have, namely, the functional capacity to establish a relationship, triggering the "sharing" of arguments. Both conjunctions, uvva 'or' as well as amalu 'and', are used in a merely additive manner, as in the enumeration of constituents, 21 without any further structuring. It is obvious that a simple operation like coordination is not accomplished by syntactic means, such as the introduction of lexical conjunctions and the utilization of syntactic positions. Coordination is not accomplished by merging syntactic units; subordination and coordination are accomplished exclusively via morphological marking, in

<sup>&</sup>lt;sup>20</sup> Of course there are strategies of reducing (detransitivization), increasing (transitivization, causativization) and shifting of arguments (antipassive), but they will not be discussed here.

<sup>&</sup>lt;sup>21</sup> As in "You can choose between A and/or B and/or C..."

chaining verbal complexes by means of inflection, i.e., word internally. As can be seen in (12b/c) the inflectional devices provide for an unmistakable identification of coreference.

Reference to a shared argument across "proposition boundaries" is interpretable only by means of inflection, differentiating third and fourth person. Recalling the discussion of subordinate constructions, we assume that the matrix moods, i.e., indicative, nominal participle, imperative/optative, and interrogative, exhibit the feature [-relational], as opposed to the "relating" moods, verbal participle, causal and conditional, containing the feature [+relating]. Examples (13) to (18) further illustrate how propositions are related in Inuktitut and how the different moods are employed. They cover the whole range of possibilities.<sup>22</sup>

# (13) makuqtillugu tikilauqtuq

makuq-tillugu tiki(t)-lauq-tuq rain 4SG.itr.part arrive-past-3SG.itr.nompart

'while it was raining he/she arrived'

# (14) takulugu tusalaartara

taku-lugu tusa(r)-laaq-tara see-1SG.3SG.tr.part hear-fut-1SG.3SG.tr.ind

'looking for/at it I will hear it'

Recently it has been suggested that these moods be interpreted as "converbs." While the whole word certainly is a verbal complex, I would rather emphasize the completely productive character of these forms: there is no verb class "converb" in Inuktitut; each and every verb or derived verbal complex can be inflected in such a way, if this is required by the discourse and if the speaker chooses to do so.

(15) takunanga tammalauqtunga

taku-nanga tamma-lauq-tunga see-1SG.neg.itr.part mistake-past-1SG.itr.nompart

'not looking I made a mistake'

'that he arrives, I know'

Dorais 1988:64

So far I have demonstrated that the syntactic structure of Inuktitut exhibits striking differences to the expected configurations. There is strong evidence that there are no syntactic argument positions but that Inuktitut realizes its arguments morphologically. Languages exhibiting such characteristics have been termed "pronominal argument languages" (Jelinek 1984). I prefer the term 'morphological argument,' since in the case of Inuktitut any reference to an assumed cliticization of independent pronouns would be utterly misleading and should be strictly avoided.<sup>23</sup>

While in so-called pro-drop languages, such as Latin or Italian, pronouns may be "dropped," i.e., structural syntactic positions (argument positions?  $^{1}$  may or even must remain empty under certain conditions, this is not the case in

#### 8. Case marking

But to return to the question of syntactic organization, to uphold my claim of Inuktitut being syntactically nonconfigurational, one important aspect has to be scrutinized - the status of the noun phrases and the fact that there is something like case marking. Especially the latter aspect seems to provide strong counterevidence to my interpretation. In the following, I will argue for a re-definition of the notion "case" with respect to Inuktitut: a traditional understanding of this notion and specifically the notion "structural case" refers to the morphological marking of structurally significant (syntactic) argument positions. As I have demonstrated above, such positions do not exist in Inuktitut. Consequently, what has been termed "case" must have a different status and a different function.

As can easily be seen from (13) to (18), nominal constituents can be freely omitted. Pronouns are exclusively used for emphasis and in responses to questions ("who...?"). First and second person are expressed overtly only in emphatic contexts, third person arguments only in case a semantic specification is necessary ("who/what is s/he/it?"). As discussed above, continuity of the same participant or a switch to a different one over several utterances is indicated unmistakably in the

morphological argument languages. In these languages the arguments realized within the verbal complex, be it via inflection or affixation, are considered to be the true realizations, their possible lexical specifications being only adjuncts.

specific mood inflection, and no configurational importance is attributed to the slots which can be filled by nominal constituents cross-referenced with the inflected verbal complex by ergative and/or absolutive case. Furthermore, taking into account the inability of native speakers to identify syntactic argument positions, overtly realized noun phrases under cross-reference are apparently more a kind of clarification of the already fully specified argument structure within a verbal complex, and may be thought of as lexical (semantic) adjuncts. Adding up all this, "case" apparently is not an epiphenomenon of structural position. Case may be viewed as a linking process, specifying the relation of a lexically expressed argument to the respective argument within the verbal complex--not as an indication of syntactic hierarchy, i.e., syntactic structure. The fact that so-called transitive inflection covers two arguments raises the need for disambiguation in those cases where there is a lexical specification of one or both of these arguments; the ergative marking can be reinterpreted as a linking suffix with a primarily semantic reading - namely, "agent" or "possessor" - and a disambiguating function. Note that the ergative marking is not open for any shift of semantic role as is the case with the absolutive and the objective, for example in the antipassive. The absolutive case is not visible at all. In relation to a

The absolutive case is not visible at all. In relation to a single argument (intransitive) expression the bare noun lexically specifies the sole argument, as can be seen in (10) angut anijuq 'the man goes out'. Traditionally this phenomenon is interpreted as zero- 23marking; but if the other

"cases" are not interpreted as indicators of structural position anymore, the paradigmatic justification of a zero-marking becomes void and the question may be asked what the evidence for its existence at all might be. The remaining "cases" are prepositional, i.e., optional and primarily semantic in nature. So what traditionally is viewed as a case system, indicating hierarchical position as well as semantic content, can be reinterpreted as a strategy for disambiguating the relation of the morphological arguments to their possible lexical specifications. This is accomplished by the ergative marking and the objective marking, while the default lexical argument of intransitives and transitives remains without marking.

In those cases where a verbal complex covering a single argument is supplemented by a constituent which is not coreferent with the verb-internally expressed argument, as is nutaramik aaniaqtumik in (2), repeated below as (20), disambiguation is again needed: it is accomplished by use of the objective marker, the suffix -mik. The inherent argument structure of taku- 'see' must be satisfied, be it with both arguments expressed morphologically as in (11), here repeated as (19), be it only with one. In this case the other argument, denoting the 'one seen' must be expressed lexically, as in (20).

(19) takuvanga

taku-vanga see-3SG.3SG.tr.ind

These are the so called ablative, -mit, "from", terminalis -mut 'to'; locative -mi 'in'; vialis -kkut 'through'; similiaris -titut 'like, as'; 24 see Nowak 1996a:31, 45-49.

# (20) takuvunga nutaramik aanniaqtumik

taku-vunga nutara(q)-mik aaniaq-tu(q)-mik

see-1SG.itr.ind child-obj sick-3SG.itr.nompart.-obj

I see the child it is sick

'I see the child who is sick'/ 'I see the sick child'

The bewildering fact of apparent "case marking of a verbal complex," as seen in aanniaqtumik, can be reinterpreted now. If we drop the idea of case marking and its interpretation as an indication of a specific position in syntactic structure, we can view the phenomenon as a linking procedure, coindexing the otherwise unrelated proposition aanniaqtuq 's/he is sick, the one who is sick'. In (20) both constituents are consecutively related to the proposition takuvunga, stringlike manner; consequently, both are marked in the same way. It is interesting to note that it is the ergative and the objective exclusively which may be employed more than once. Recall the failed attempts at joining transitive and intransitive expressions demonstrated in (4) to (7). While sequences of constituents marked objective have just been discussed, the chaining of constituents marked ergative is possible in possessive constructions. Compare the possessives in relation to a transitive verbal complex in (21), and an intransitive verbal complex in (22):

# (21) Jaaniup anaanangata atinga nalligijanga

Jaani-up anaana-ngata ati(k)-nga John-erg mother-3SG.poss.erg. name-3SG.poss.abs

John's his mother's her name

nalligi-janga love-3SG.3SG.tr.ind

'S/he loves John's mother's name'

#### (22) niunanik aningata tigumijagtug

niu-nanik ani-ngata

leg-3SG.poss.obj brother.of.a.sister-3SG.poss.erg

his leg her brother's

tigumijaq-tuq

grab-3SG.itr.nompart

'she grabs her brother's leg'

Sentences (21) and (22) <sup>25</sup>both demonstrate the semantic

reading of the ergative marking as possessive and its independence of structural position; if we still interpret the ergative marking as case, in (21) coreference of one morphological argument with 'John' would have to be established. Example (22) would have to be ruled out as ungrammatical, since there is no transitive inflection at all. Connecting such a linking procedure with the relating capacities of verbal complexes, we arrive at a complete strategy for relating full propositions, as well as lexical adjuncts within a proposition. This reinterpretation would not leave Inuktitut without good company. If we look at Ojibwa, an Algonquian language of Southern Canada, we see the linking process suggested above even more clearly. Ojibwa features intricate verb morphology, including the so-called obviative marking, which spreads to the "linked" noun: this marking indicates which nominal constituent is connected with which "theme sign," i.e., which participant is indicated by affixation. Consequently, free word order becomes possible: 22)

- "[4] a. animoš o-nosine:w-a:-an bo: s-an dog 3-chase-3-OBV cat-OBV 'the dog is chasing the cat' b. bo: s-an o-nosine:w-a:-an animoš
  - c. o-nosine:w-a:-an bo: s-an animoš"

The affix -a:, which is attached to the verb form, is known as a TA (transitive animate) theme sign. It indicates that the theme argument is a third person. The obviative marker following the theme sign indicates that the theme argument also is obviative. Now, the prefix on a TA verb form refers to the argument that is not referred to by the theme sign. So in [4], the prefix o-indicates that the agent argument is a third person. Since bo: s-an is marked obviative, it is interpreted as the theme. This leaves the non-obviative animoš to be interpreted as agent. <sup>26</sup>From these examples, it can be seen that the thematic structure of an Ojibwa sentence is

interpreted on the basis of the morphology of its constituents rather than on the basis of their linear position in a syntactic phrase marker.

Grafstein 1989:166

It might be stimulating to ask whether such linking devices must be present in all nonconfigurational languages which exhibit a distinction of basic lexical categories +N and +V, and consequently must distinguish the relating of lexical specifications within propositions from the relating of full propositions.

# 9. Lexical categories.

Although Inuit languages do not show the same underspecification of the basic categories N and V as is stated for, e.g., Aleut, 25 the Athapaskan language Slave, 26 or

 $<sup>^{25}</sup>$  "The open word classes are nouns (...) and verbs (...). Ordinary nouns have suffixes for number (singular, dual, plural), relational case (absolutive, relative), and grammatical person, so-called possessive suffixes (anaphoric third person, first, second and reflexive third person). Verbs have mood and tense suffixes (including zero), several of which share with nouns suffixes for number, relation case and grammatical person. Many stems are ambivalent, both nominal and verbal(...). There are no adjectives other than verbal nouns and participles" (Bergsland 1997:47; see also Bergsland 1981:73). It is quite clear that the distinction of "nouns" and "verbs" is neither justified by lexical properties, nor by the employment of tense/mood suffixes, which is not obligatory (Bergsland 1997: 83). Such a distinction seems to be of significance with respect to polysynthetic processes - just as it is in Inuktitut.

<sup>&</sup>quot;There are many stems in Slave that can be used both as nouns and as verbs. ... Sapir (1923) argued that Athapaskan verb stems are underlying nominal with affixes functioning to change the category to verb. Sapir did not present evidence that it is the noun that underlies the noun/verb pairs. Instead of taking either the noun or the verb as basic, I

the Iroquoian and Salish languages, 27 lexical underdetermination with respect to inflectional devices has repeatedly been discussed for Inuit languages too.28 The expression aanniaqtumik 's/he.is.sick-objective', as in (20), represents one of the cases which are so puzzling for syntax-based approaches. The distinction of phrasal categories, and of course the underlying distinction of lexical categories seems to be violated: an inflected verbal complex, aanniagtug 's/he is sick' as in (1), appears to be case marked, while case marking is defined as an exclusively nominal morphological property. Note that -tuq '3SG.itr.nompart' is part of an inflectional paradigm, specifying first, second, and third person(s) in singular, dual, and plural. The distinction of lexical categories (nouns and verbs) is considered prerequisite to the identification of corresponding syntactic projections (noun phrases and verb phrases), which are the elementary constituents of a (syntactic) proposition. Consequently, inflectional morphology must be distinct with respect to its lexical category; otherwise, the structurally important distinction between

assume that the underlying form is a root, not necessarily assigned to a lexical category. Roots are converted into stems by stem formation rules which assign a lexical category, noun, verb, or postposition" (Rice 1989:161).

<sup>&</sup>lt;sup>27</sup> Cf. Sasse 1993; Jelinek & Demers 1994; Jelinek 1995, 1997; Kinkade 1983; Kuipers 1968. Even if there are counterarguments in favor of a noun-verb distinction, the fact that the discussion persists illuminates the problem at issue here: the interdependence of a configurational syntax and the necessity to distinguish precisely the candidates for the different "slots."

 $<sup>^{28}</sup>$  To name just the most recent, see Johns 1987, 1992.

"reference" and "predication" would be blurred and the expression would become uninterpretable.<sup>29</sup>

As I have argued above, the verbal complex in Inuktitut constitutes a complete proposition, related constituents being either adjuncts (semantic specifications) with no structural significance or related propositions: consequently, there is no need to strictly and structurally differentiate lexical categories. If the projection of lexical categories to syntactic (phrasal) categories, i.e., the syntactically necessary differentiation of predication and reference is of no major importance, the distinction of corresponding categories on the lexical level, i.e., the word level, as input for syntactic projection, is no longer of major importance, either.<sup>30</sup>

10. Morphological configurationality: polysynthesis
In Inuktitut, structuring of relations is not accomplished by syntactic devices, but by morphological ones. In a sequence, a verbal complex in one of the "matrix" moods can be present, (as in (24) below, but this is by no means obligatory, as is demonstrated by (25) and (26). It should be noted too that there are no nominal constituents in any of the three sequences.<sup>31</sup>

<sup>&</sup>lt;sup>29</sup> This of course does not exclude word formation processes which induce a change of category!

 $<sup>^{30}</sup>$  For a discussion of lexical categories and polysynthesis, see Nowak 1997 (to appear).

<sup>&</sup>lt;sup>31</sup> To further substantiate the validity of my claim, I will present data from sources other then my own. Harper does not give a gloss at all and so I have added it. Denny does gloss

(24) uqaq unilu niqiliuq unilu qaujilauqnngittuq isiqtuqarmat 'while she was talking and preparing food she was unaware that someone had entered.'

Harper 1974:27

S

uqaq-luni-lu niqi-liuq-luni-lu

speak-3SG.itr.part-and meat-prepare-3SG.itr.part-

and

she(same person)-speaking-and she(same person)-meat preparing-and

'while she was talking and preparing food...

she was unaware that someone had entered'

(25) pulaaniaqqaugaluarakkit kisiani sininnirrama

'although I was intending to visit you, I fell asleep (and did not come)'

Harper 1979:91

pulaa-niaq-qqau-galuaq-rakkit
visit-fut-past-although-1SG.2SG.tr.caus
[although I wanted (past) to visit (then future) you] causal

relation

'although I was intending to visit you'

kisiani: only

sini(k)-niq-rama
sleep-past-1SG.itr.caus
[I fell asleep (unintentionally)]causal relation

his example, which is quoted here in the original form. Denny's orthography deviates somewhat from the (inofficial) standard used nowadays.  $^{30}$ 

'because I fell asleep (unintentionally) - (I did not come)'

(26)

- " [13] a. kamik-kami b. tursuung-muaq- uni boot-when she put on porch-she going to when she put on her boots, going to the porch,
  - c. manir-mik tigusibluni
    lamp wick moss-Instr she grabbing
    she grabbed some lamp wick moss,

  - e. ursu-mullu misuk uniuk ikibluniklu oil-into and she plunging it and she lighting it she plunged it into the lamp's oil and she lit it"

    Denny 1989:238

So far, the discussion leaves us with two basic syntactic patterns, namely, a pattern structured hierarchically (asymmetrically), allowing for "nesting" of substructures, a pattern very familiar to us. Then there is an alternative pattern, chaining constituents (symmetrically) and not allowing for "nesting." From a purely syntactic point of view, this second variant seems to be less intricate and allow less complexity. If we take into consideration the factors I have described and focus on morphology, i.e., word formation, this deficiency might be counterbalanced by a complementary device for nesting and complexity. Synthetic processes, including "null anaphora" (Hale 1983), or inflection for "pronominal arguments" (Jelinek 1984) (here termed "morphological arguments") and incorporation as well as "functional" affixes indicating obviation, as it is known from Algonquian languages, or discharging the duty of complementizers, auxiliaries, the copula, 31true pronouns, prepositions,

etc. may be viewed as devices to reduce syntactic complexity in favor of morphological complexity.

It is interesting to note that the morphological status of the mentioned "alternative strategies" is a feature shared by all languages under consideration. 32 With respect to Inuktitut, morphological complexity may also be found in other areas considered to be of primarily syntactic relevance such as passive, antipassive, causative, modality, indirect or reported speech, epistemic modifications, and the like. The relation of configurationality to synthetic processes calls for further investigation if we are not satisfied with assuming that syntactic processes are simply "mirrored" in morphological ones--morphology does compete with syntax. While derivational strategies in Inuktitut may be represented rather satisfyingly, inflection needs much more investigation and consideration as well--not just with respect to its syntactic functions but first and foremost with respect to its morphological status.

Interpreting morphological devices in strict analogy to syntactic structures does not seem to be an illuminating way to account for the obvious disparity between them. It blurs our view of the differences and levels them. Considering a

It is interesting to note that Baker 1996:19 excludes the Eskimo languages from being polysynthetic in his understanding of the term. The reason is that in Eskimo languages there is a strict complementarity in derivational processes between roots and stems on the one hand and affixes on the other. Consequently, Eskimo languages do not meet Baker's criterion that noun roots and verb roots be able to be used independently; there are many "verb roots" in Inuktitut which are in fact affixes and consequently may not be used alone. On the other hand, compounding of a nominal stem and a true verbal root is strictly ruled out in all Eskimo languages.

relationship between polysynthesis as a morphological type and nonconfigurationality as a syntactic type may help to better understand the nature of polysynthesis as well.

It is most likely that the degree of interrelation between nonconfigurationality and polysynthesis varies; saying that nonconfigurationality predicts polysynthesis surely would be too strong a claim. The following relation seems to be more likely: languages exhibiting powerful inflectional systems, and/or intricate derivational devices and/or complex word formation including incorporation and strictly functional morphological devices are good candidates for being nonconfigurational. The more of these aspects a language exhibits, the less it needs or can afford a second layer of intense structuring.

To conclude for the time being, two other, seemingly unrelated problems can now be accounted for. One is the already mentioned underspecification of lexical categories, which causes so much trouble for syntactic theory.

The other is related to the ergativity debate and the problem of "several subjects" I started off with for Inuktitut: it is not possible to pinpoint just one NP as the highest in the hierarchy. 33 If we consider Inuktitut to be nonconfigurational, there is no need to do so anymore.

#### Abbreviations

abs - absolutive; erg -ergative; obj - objective; poss possessive; fut - future; neg - negation; itr/tr -

This is a problem in the description of other languages too, see, e.g., Guilfoyle, Hung and Travis 1992.

intransitive/transitive inflection,

ind- indicative; nompart - nominal participle; part - verbal
participle; cond - conditional mood; caus - causative mood; ap
- antipassive.

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