Preferred Argument Structure in early Inuktitut spontaneous speech data*

Shanley E. M. Allen and Heike Schröder
Boston University

Introduction

It is well known that speakers tend to represent nominal referents in their speech in each of the different morphological forms permitted in their language, according to a variety of discourse properties associated with the referent in question (Chafe 1976, 1987, Li & Thompson 1979, Clancy 1980, Givón 1983). Thus, a referent which has not been previously mentioned in the discourse is more likely to be represented as a lexical NP, while a referent which has just been mentioned in the previous clause is more likely to be represented as a pronominal, or only through a verbal cross-referencing affix or not at all if the language in question permits the latter two options. Work by Du Bois (1985, 1987) further illuminates these patterns of referential choice by showing that grammatical role strongly correlates with the distribution of referring expressions both in relation to their discourse properties and in relation to the morphological form in which they are represented. Thus, referring expressions which are full lexical NPs and referring expressions representing new referents tend to appear relatively frequently in the S and 0 roles, but relatively infrequently in the A role. Du Bois refers to this pattern as Preferred Argument Structure, and discusses at some length the pragmatic and grammatical tendencies associated with it.

The central notions of Preferred Argument Structure can be expressed in the form of four constraints, as shown in Table 1. These constraints illustrate the correlation between grammatical role, pragmatic information and morphological form of arguments, as observed in data from Sakapulteko Maya adult narratives in the original instance (Du Bois 1985, 1987), and in several other languages of varying typologies. It has also been shown to provide an accurate description of referential choice in certain instances of both first and second language acquisition (Kumpf 1992, Clancy 1993, this volume, Bentivoglio 1996).
Table 1. Dimensions and constraints of Preferred Argument Structure

<table>
<thead>
<tr>
<th>Grammar</th>
<th>Pragmatics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity One Lexical Argument Constraint: Avoid more than one lexical argument per clause.</td>
<td>One New Argument Constraint: Avoid more than one new argument per clause.</td>
</tr>
<tr>
<td>Role Non-Lexical A Constraint: Avoid lexical A’s.</td>
<td>Given A Constraint: Avoid new (Source: Adapted from Du Bois 1987:829)</td>
</tr>
</tbody>
</table>

The present paper seeks to describe and explain the patterns of distribution of morphological forms of arguments in a set of spontaneous speech data taken from four Inuktitut-speaking children aged 2;0 through 3;6. Inuktitut is a morphologically ergative language with rich verbal morphology in which arguments tend to be represented solely through verbal cross-referencing affixes, and thus it provides an interesting parallel with Sakapulteko which has similar characteristics (Du Bois, 1987). As far as we are aware, there is only one other study of Preferred Argument Structure in an Eskimo language (Rubino 1996), focussed on oral narratives. In addition, only two languages have been investigated specifically in terms of Preferred Argument Structure in child language: Korean spontaneous speech data from children aged 1;8-2;10 (Clancy 1993, 1995, 1996, 1997, this volume) and Venezuelan Spanish oral narrative data from children aged 3-6 years (Bentivoglio 1996). Thus, the present paper offers useful elaboration in both these areas.

Results indicate that each of the constraints in Table 1 hold in the Inuktitut data examined here, such that a strong relationship is observed between morphological form and grammatical role, between morphological form and recency of mention, and between recency of mention and grammatical role. In order to help address the universality of the constraints proposed by the Preferred Argument Structure framework, Inuktitut child data are compared with three other data sets following the dimensions noted above: adult Sakapulteko narratives (Du Bois 1987), adult Yup’ik narratives (Rubino 1996), and child Korean spontaneous speech (Clancy 1993, this volume). Inuktitut data are consistent with data from these three languages in terms of the four constraints. However, comparisons reveal a substantially lower percentage of lexical arguments and transitive clauses in Inuktitut than in the other languages. Potential reasons for these differences are explored in the discussion section.

Inuktitut structure

Inuktitut is a language of the Eskimo-Aleut family spoken in parts of northeastern Canada; the dialect discussed here (Tarramiut) is spoken in northern Quebec. It is a polysynthetic language which is generally considered morphologically ergative, and which has basic SOV word order. Various aspects of its grammar encode person and number; 4 persons (1, 2, 3 coreferent, 3 disjoint) and 3 numbers (singular, dual, plural) are normally differentiated. Inuktitut also has a rich system of both nominal case-marking affixes and verbal cross-referencing affixes. Two aspects of Inuktitut structure essential to the paper are elaborated further below.

Morphological form of arguments

The morphological form of arguments in Inuktitut involves two components: verbal cross-referencing affixes on the one hand and independent lexical or demonstrative NPs on the other. Verbal cross-referencing affixes are obligatory (except in restricted situations in colloquial speech), while independent NPs are optional.

The system of verbal cross-referencing affixes in Inuktitut is particularly rich. Subjects of grammatically intransitive clauses (1) and both subjects and objects of grammatically transitive clauses (2) are reflected in portmanteau affixes on the verb, which provide information about verbal modality as well as about both the person and the number of the subject and object. While these portmanteau affixes were undoubtedly originally formed from distinct component parts, these parts are no longer reliably distinguishable in a systematic way. Apart from this difference, Inuktitut morphology is similar to that of Sakapulteko in terms of the information coded on the verb (Du Bois 1987), and hence provides a useful comparison.

(1) a. Amarama.
   arqa-gama
   get.down-csv.1sS
   ‘I’m getting down: (Paul 2;6)

   b. Qailangannginavit.
   qai-langa-nngit-gavit
   COMe-PUT-NEG-CSY.2sS
   ‘You aren’t going to come: (Louisa 3;6)

(2) a. Qukisigakkik.
   qukig-si-gakkik
   shoot-pRsp-csv.I sS.2sS
   ‘I’m shooting you.’ (Paul 3;3)
Independent lexical or demonstrative representation of arguments apart from the portmanteau affix is not required in Inuktitut. However, third person arguments may be represented in the form of either independent lexical NPs or independent demonstratives in addition to verbal cross-referencing affixes. Note that there are no third person pronominals in Inuktitut, but rather a rich system of demonstratives which convey information about the number, relative location, and motion of the referent. Thus, third person arguments may appear in three possible morphological forms: lexical (lexical NP plus verbal affix), demonstrative (demonstrative plus verbal affix), and affixal (verbal affix only). The examples in (3) show simple active intransitive sentences based on the verbal root *sinik* - `sleep', with third person subjects represented as lexical (3a), demonstrative (3b), and affixal (3c).

(3)

a. **Panik, piarait sinisijuq.**
   
   panik pia-r-juq
   
   daughter baby-Ans.2S.sG sleep-pRsp-pAR.3sS
   
   'Daughter, your baby is sleeping: (Paul 3;3)

b. **Una sinisimmat.**
   
   u-na sinik-si-mmat
   
   this-one-Ans.so sleep-pRsp-csv.3sS

   'This one is sleeping: (Lizzie 2;10)

c. **Sinilirmat.**
   
   sinik-liq-mmat
   
   sleep-INCP-csv.3sS

   'He/she is sleeping: (Elijah 2;9)

First and second person arguments are virtually never represented lexically or pronominally, even for emphasis, but rather only through verbal cross-referencing affixes (this is true both in the language in general and in the data discussed in this paper). Instead; use of the reflexive iminik `my/your/him/herself, and use of a first or second person pronoun in a single word utterance. However, use of pronouns as arguments in verbal clauses is considered ungrammatical in such instances.

**Ergativity**

Inuktitut is generally classified as a morphologically ergative language. Ergativity is no longer clearly visible for the most part in the verbal affixation system due to the conflation of component parts of the portmanteau verbal affixes noted above. However, ergativity is reflected through the nominal case marking system. Arguments in S (subject of intransitive) and 0 (object of transitive) grammatical roles are both marked with absolutive case (7a,b) while arguments in the A (subject of transitive) role are marked with ergative case (7c).

(7)

a. **Qimmiapik qialirtuq.**
   
   gimmiq-apik-o qia-liq-juq
   
   dog-rum-Ans.sc cry-wcP-PAr.3sS

   'The cute little dog is crying: (Louisa 3;2)
b. **Miaji takulaunngitait.**
   Miaji o taku-lauq-ngit-jaït
   Mary-Ans.sc see-PAST-NEG-PAR.2S.S.3S
   'You didn’t see Mary: (Lizzie 2;10)

c. **Kinaap pijanga.**
   kina-up pi-janga
   WHO-ERG.SG d0-PAR.3P.S.3S
   'Who is doing this?' (Elijah 2;5)

The case marking paradigm for nouns and demonstratives which have no possessor is given in Table 2. Note that the ergative and absolutive forms are identical for dual and plural, and only differ for the singular. In addition, the absolutive, by far the more frequent of the two cases, is not phonetically realized in the singular form. Thus it may appear that the ergative-absolutive patterning in Inuktitut is rather spurious. However, the patterning becomes much more evident in the paradigms for nominals which have a possessor. The paradigm for singular nominals possessed by a singular possessor is given in Table 3. The examples in (8) illustrate this paradigm for the nominal *ataata* ‘father’, possessed by a first person singular entity.

### Table 2. Case marking paradigm for Inuktitut non-possessed nominals

<table>
<thead>
<tr>
<th>Case</th>
<th>Demonstrative</th>
<th>Case</th>
<th>Demonstrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singular</td>
<td>up</td>
<td>uuma</td>
<td>-0</td>
</tr>
<tr>
<td>Dual</td>
<td>-Vk</td>
<td>ukua</td>
<td>-Vk</td>
</tr>
<tr>
<td>Plural</td>
<td>-it</td>
<td>ukua</td>
<td>-it</td>
</tr>
</tbody>
</table>

### Table 3. Case-marking paradigm for singular nouns possessed by singular possessors

<table>
<thead>
<tr>
<th></th>
<th>Ergative</th>
<th>Absolutive</th>
</tr>
</thead>
<tbody>
<tr>
<td>my singular item</td>
<td>(m)ma</td>
<td>-ga</td>
</tr>
<tr>
<td>your (so) singular item</td>
<td>-pit/-vit</td>
<td>-it</td>
</tr>
<tr>
<td>his/her/its singular item</td>
<td>-ngata</td>
<td>-nga</td>
</tr>
</tbody>
</table>

(8) a. **Ataataga iitruq.**
   ataat-a ga itiq-juq
   father-Ass.1S.sn enter-PAR.3S.S.3S
   'My father is coming in: (Lizzie 2;6)

b. **Ataataga siniqunngilauruk.**
   ataat-a ga sinik-qu-ngit-lauq-guk
   father-Ass.1S.sn sleep-tell-NEG-POL.2S.S.3S
   'Tell my father not to sleep: (Elijah 2;5)

c. **Ataatamna kaivaluakainmatanga.**
   ataat-a-mna kaivalu-a-kainaq-janga
   father-EnG.1S.sn turn-pAsT-pAR.3S.S.3S
   'My father spun it: (Elijah 2;9)

Having described the basic relevant features of the structure of Inuktitut, we turn now to the methodology used in this paper.

### Method

**Subjects**

Data used in this paper are Laken from the spontaneous speech of four Inuit children — Elijah, Lizzie, Louisa and Paul — aged 2;0, 2;6, 2;10 and 2;6 respectively at the outset of data collection. Elijah was adopted by his grandparents and lived in an extended family with these grandparents, his birth mother, and his siblings by adoption. His grandmother did not work outside the home, and served as his primary caretaker. Each of the other subjects lived in nuclear families in which both parents worked outside the home; the children were cared for during the day by members of their extended families. Elijah, Louisa and Paul were the youngest siblings in their respective families, while Lizzie was the oldest. One baby was born in Elijah’s family during the duration of the data collection period, (See Allen 1996 for more details about the subjects.)

All of these children lived in the same functionally monolingual Inuit community of some 200 inhabitants in arctic Quebec. All Inuit in this community (some 97% of the permanent population) are native and fluent speakers of Inuktitut (Tarramiut dialect), though most between the ages of about eight and forty are also fluent to varying degrees in English and/or French.

### Data collection and preparation

The children were each videotaped by the first author, 4 hours per month for nine months, in naturalistic communication situations with their friends and families. Approximately one half of the data (two hours per child per month) were selected for transcription on the basis of relative frequency of utterances of the subject and potential ease of transcription of the tape. These data were then transcribed by native speakers of Inuktitut and entered into computer following the CHAT.
transcription conventions of the CHILDES project (MacWhinney & Snow, 1990). Transcripts of the first, middle and last months of taping for each child were chosen for intensive analysis. These transcripts were checked for accuracy by the first author in consultation with native speakers of Inuktitut, and then coded for various morphological, syntactic and discourse features including those described below.

Data analysis was conducted using the CLAN programs (MacWhinney & Snow, 1990). Only utterances which were fully intelligible and complete from the point of view of the child's intonation, and which were not comprised solely of routines (e.g., songs, alphabet), were included in the data set to be analyzed. Note that utterances comprised of partial and complete imitations of previous speakers and self-repetitions were included in the analysis.

Following Du Bois (1987) and other work involving Preferred Argument Structure, the unit of analysis considered for this paper is the verbal clause. Thus, verbal utterances in the data were divided into individual verbal clauses, each containing a verb or verbal element and its arguments. All intransitive and transitive clauses with verb roots and cross-referencing affixes were analyzed. Intransitive clauses (9) include those which are simple actives, passives, antipassives, noun incorporation structures, and complex actives (e.g. want to V). Transitive clauses (10) include those which are simple actives, causatives, noun incorporation structures, and complex actives (e.g. want to V). Verbal clauses lacking either a verb root (11a) or cross-referencing affix (11b) or both (11c), but containing other verbal affixes (e.g. secondary verb, tense, aspect, or negation), were also included in the analysis as intransitive or transitive clauses. Such clauses are considered colloquially appropriate in adult and child Inuktitut, and the root and affix information is recoverable from context (Swift & Allen 2002a, 2002b).

In addition, all clauses with overt copular verbs were analyzed, including equational clauses (12a) and existential clauses (12b).

Equational and existential clauses without overt copular verbs (13) were not included in the analysis, although they are perfectly grammatical in Inuktitut. This was done in order to make the Inuktitut data maximally comparable with that from other languages, since most other analyses of Preferred Argument Structure include only clauses with overt verbs.

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---

(11) **a. Tilauruk.**

\[
\begin{align*}
\text{tit-laure-guk} & \quad \text{CAUS-POL-IMP.2SS.3S0} \\
\text{sit-GAU-POL-1mp.2S.3S0} & \quad \text{CAUS-POL-IMP.2SS.3S0} \\
\text{Make it fall.} & \quad \text{(Louisa 3;2)}
\end{align*}
\]

**b. Paisikunnguваq.**

\[
\begin{align*}
\text{paisikuq-nnguваq} & \quad \text{bicycle-pretend-PAR.3S} \\
\text{Tretending to bicycle.} & \quad \text{(explaining that a cartoon character is pretending to bicycle)}
\end{align*}
\]

---

(12) **a. Piarautsuit?**

\[
\begin{align*}
\text{piaraq-u-tsutit} & \quad \text{baby-be-crm.2S} \\
\text{When you were a baby?} & \quad \text{(Louisa 3;6)}
\end{align*}
\]

**b. Haakiruralu silamiituq.**

\[
\begin{align*}
\text{siluq-git-juq} & \quad \text{hockey-used-for-ENmpx-Ass.sce} \\
\text{Loc-be-PAR.3S} & \quad \text{outside-Loc-be-PAR.3S} \\
\text{The hockey stick is outside.} & \quad \text{(Elijah 2;0)}
\end{align*}
\]

---

(13) **a. Una arnaq.**

\[
\begin{align*}
\text{una arnaq-0} & \quad \text{ABS.SG WOMall-ABS.SG} \\
\text{This (is a) woman!} & \quad \text{(Paul 3;3)}
\end{align*}
\]
The final data set used for analysis in this paper, then, contains a total of 2588 clauses: 1633 intransitive clauses, 617 transitive clauses, 164 equational clauses, and 174 existential clauses. The quantitative details of the data set are summarized in Table 4.

Data were also divided into 3 groups of increasing grammatical complexity for purposes of assessing any developmental changes. The mean number of morphemes per utterance was calculated for all utterances of each child at each age which contained a verbal element (verb root, verbal cross-referencing affix, or other verbal affix), and which were complete, intelligible, non-repetitive and non-imitative. Most acquisition literature assumes that children's mean length of utterance (MLU) will increase as their grammatical complexity increases, since producing structures of increased complexity usually involves adding a morpheme to the structure (Brown 1973). Previous work showed that calculating MLU over only verbal utterances rather than over all eligible utterances in the data set provided a better characterization of increasing complexity for the utterances in this data set (Allen 1996). Groups are given in Table 5.

Table 4. Data analyzed

<table>
<thead>
<tr>
<th>Child</th>
<th>Age</th>
<th>No. intransitive clauses</th>
<th>No. transitive clauses</th>
<th>No. equational clauses</th>
<th>No. existential clauses</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elijah</td>
<td>2;0</td>
<td>151</td>
<td>41</td>
<td>12</td>
<td>10</td>
<td>214</td>
</tr>
<tr>
<td></td>
<td>2;5</td>
<td>187</td>
<td>89</td>
<td>25</td>
<td>11</td>
<td>312</td>
</tr>
<tr>
<td></td>
<td>2;9</td>
<td>219</td>
<td>42</td>
<td>11</td>
<td>24</td>
<td>296</td>
</tr>
<tr>
<td>Lizzie</td>
<td>2;6</td>
<td>45</td>
<td>40</td>
<td>5</td>
<td>6</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>2;10</td>
<td>216</td>
<td>79</td>
<td>11</td>
<td>16</td>
<td>322</td>
</tr>
<tr>
<td></td>
<td>3;3</td>
<td>72</td>
<td>20</td>
<td>14</td>
<td>21</td>
<td>127</td>
</tr>
<tr>
<td>Louisa</td>
<td>2;10</td>
<td>62</td>
<td>33</td>
<td>15</td>
<td>1</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>3;2</td>
<td>230</td>
<td>118</td>
<td>22</td>
<td>10</td>
<td>380</td>
</tr>
<tr>
<td></td>
<td>3;6</td>
<td>162</td>
<td>65</td>
<td>20</td>
<td>53</td>
<td>300</td>
</tr>
<tr>
<td>Paul</td>
<td>2;6</td>
<td>66</td>
<td>22</td>
<td>8</td>
<td>13</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>2;11</td>
<td>49</td>
<td>29</td>
<td>5</td>
<td>7</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>3;3</td>
<td>174</td>
<td>39</td>
<td>16</td>
<td>2</td>
<td>231</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1633</td>
<td>617</td>
<td>164</td>
<td>174</td>
<td>2588</td>
</tr>
</tbody>
</table>

Table 5. Data grouped by verbal MLU

<table>
<thead>
<tr>
<th>Group</th>
<th>Verbal MLU</th>
<th>Data included</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.25-3.99</td>
<td>Louisa 2;10, Louisa 3;2, Paul 2;6</td>
</tr>
<tr>
<td>2</td>
<td>4.00-4.74</td>
<td>Elijah 2;0, Lizzie 2;6, Lizzie 2;10, Louisa 3;6, Paul 2;11, Paul 3;3</td>
</tr>
<tr>
<td>3</td>
<td>4.75-5.49</td>
<td>Elijah 2;5, Elijah 2;9, Lizzie 3;3</td>
</tr>
</tbody>
</table>

(Source: Adapted from Allen 1996:48)

Coding

All clauses under analysis were coded as either grammatically intransitive (verbal cross-referencing affix for subject only) or grammatically transitive (verbal cross-referencing affix for both subject and object). All nominal referring expressions in the data were coded for grammatical role. Arguments of verbal clauses were coded as either subjects of grammatically intransitive clauses (S), subjects of grammatically transitive clauses (A), or objects of grammatically transitive clauses (O). Subjects of copular clauses were coded as either equational (Se) or existential (Sx). In addition, all referential obliques were coded (Obl), including those marked as modalis (patient of antipassive, second object of causative or double object construction), allative (including agent of passive), ablative, locative, and vialis.

All nominal referring expressions were also coded for morphological form (lexical, demonstrative, affixal), person of referent (first, second, third), animacy (human, animal, inanimate), recency of mention of referent in discourse (new, non-new), physical presence of referent in context (absent, present), and contrastiveness of referent in discourse (contrast, no contrast), following Clancy (1993, 1997). Referring expressions were coded as new if the referent which they denoted had not been mentioned in the preceding 20 clauses or was newly introduced to the discourse, and as non-new if the referent had been mentioned one or more times in the preceding 20 clauses. First and second person arguments were all classified as non-new, following Chafe (1976) and Du Bois (1987).

Results

The four constraints of Preferred Argument Structure, presented in Table 1 above, have been found to provide an accurate representation of tendencies in the distribution of lexical and new arguments across a variety of language typologies and data types. In this section, we assess their validity for the child Inuititut spontaneous speech data outlined above. Inuititut results are also compared to results from Sakapulteko adult narratives (Du Bois 1987), Yup'ik adult narratives (Rubino 1996) and Korean child spontaneous speech (Clancy 1993, this volume).
Quantity constraints

The quantity constraints of Preferred Argument Structure involve the number of lexical and new arguments per clause. Du Bois (1987) shows that clauses involving either two lexical arguments or two new arguments are dispreferred in discourse.

The One Lexical Argument Constraint is fully supported in Inuktitut child language, in that only 0.04% of all clauses (0.2% of transitive clauses) have two lexical arguments. Results for all quantities are shown in Table 6. The percentage of clauses with two lexical arguments in Inuktitut is consistent with figures for adult Sakapulteko (1.1% of all clauses; 2.8% of transitive clauses (Du Bois 1987:819)), adult Yup'ik (1% of all clauses (Rubino 1996:144)), and child Korean (4.7%-5.4% of transitive clauses' (Clancy this volume)).

Table 6. Transitivity and number of lexical arguments per clause

<table>
<thead>
<tr>
<th>No lexical arguments</th>
<th>One lexical argument</th>
<th>Two lexical arguments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitive</td>
<td>574</td>
<td>93.3</td>
<td>42</td>
</tr>
<tr>
<td>Intransitive</td>
<td>1544</td>
<td>94.5</td>
<td>89</td>
</tr>
<tr>
<td>Equational</td>
<td>157</td>
<td>95.7</td>
<td>7</td>
</tr>
<tr>
<td>Existential</td>
<td>151</td>
<td>86.8</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>2426</td>
<td>93.7</td>
<td>161</td>
</tr>
</tbody>
</table>

Two differences between the Inuktitut data and data from other languages are quite striking, however. First, the percentage of clauses with one lexical argument in Inuktitut (6.2%) is very different from figures for Sakapulteko (52.6%), Yup'ik (32%) and Korean (28.2-30.3% (Clancy p.c.)). In fact, only 7.8% of referring expressions in the Inuktitut corpus are represented lexically (5.1% of arguments and 77.6% of obliques), compared with some 44.2% in Sakapulteko (Du Bois 1987:819). As this factor is also relevant for the other constraints, we will return to it in the discussion below.

Second, the ratio between the number of intransitive and transitive clauses is quite different in Inuktitut (27.4% transitive) than in Sakapulteko (40.4% transitive (Du Bois 1987: 819)) and Korean (50% transitive (Clancy this volume)). Figures for Yup'ik narratives vary from 26.0% transitives for a retelling of a true incident to 37.7% for the true story and 40.5% for a retelling of a mythological tale (Rubino 1996:147-147). The variation in figures for Yup'ik depending on the type of narrative told may indicate that discourse which is more personal (child interaction, retelling a personal story) may yield a lower percentage of transitives than that which is less personal (true story, mythological tale). We return to the issue of differences in the number of transitive and intransitive clauses in the discussion below.

Role constraints

The role constraints of Preferred Argument Structure involve the relative distribution of arguments across the grammatical roles available within a clause. Du Bois (1987) shows that the placement of either lexical or new arguments in the A role is dispreferred in discourse.
Du Bois's Non-Lexical A Constraint is supported by Inuktitut child language data since only 1.1% of all arguments in the A role are lexical. In addition, all seven tokens of lexical A's are from the saure child, Elijah, whose data is the most grammatically advanced of the 4 subjects. Table 8 gives the data for all morphological forms in each grammatical role, including non-argument.

The pattern observed here is similar to that in other languages in that there is a relatively small percentage of lexical arguments in the A role compared to the other roles. Du Bois (1987: 822) reports 6.1% lexical A's in adult Sakapulteko narratives (vs. 48.1% lexical S's and 45.9% lexical O's), Rubino (1996: 145) reports 0% lexical A's in adult Yup'ik narratives, and Clancy (this volume) reports 12.14% lexical A's in child Korean spontaneous speech (vs. 3.3% lexical S's, 53.68% lexical Sx's, 28-32% lexical S's, and 30-42% lexical O's). Although the percentage differences between the number of lexical arguments in the A role vs. the other roles do not look as striking in Inuktitut as in the other languages, it is nevertheless the case that lexical arguments in Inuktitut occur about twelve times more often in the Si role and five times more often in the 0 role than they do in the A role, as shown in Table 9.

Table 9. Distribution of lexical referring expressions across grammatical roles

<table>
<thead>
<tr>
<th>Lexical referring expressions</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td>Se</td>
<td>7</td>
<td>2.7</td>
</tr>
<tr>
<td>Sx</td>
<td>23</td>
<td>8.8</td>
</tr>
<tr>
<td>Si</td>
<td>89</td>
<td>34.3</td>
</tr>
<tr>
<td>O</td>
<td>37</td>
<td>14.2</td>
</tr>
<tr>
<td>Obl</td>
<td>97</td>
<td>37.3</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A role in adult Sakapulteko narrative represent new referents (Du Bois 1987: 826; compared to 22.5% in S and 24.7% in 0), while 2.4% of arguments in the A role in child Korean spontaneous speech represent new referents (Clancy this volume; compared to 33-34% in S, 22-38% in Sx, 18% in Si, and 35-37% in O) (Rubino (1996) does not give comparable figures for this constraint in Yup'ik). The difference in number of new arguments in S vs. 0 roles is similar to that in Korean, though different from that in Sakapulteko.

Table 10. Distribution of recency of mention within grammatical roles

<table>
<thead>
<tr>
<th>New</th>
<th>Non-new</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>n</td>
<td>n</td>
</tr>
<tr>
<td>A</td>
<td>4</td>
<td>609</td>
</tr>
<tr>
<td>Se</td>
<td>26</td>
<td>130</td>
</tr>
<tr>
<td>Sx</td>
<td>44</td>
<td>124</td>
</tr>
<tr>
<td>Si</td>
<td>170</td>
<td>1361</td>
</tr>
<tr>
<td>O</td>
<td>163</td>
<td>440</td>
</tr>
<tr>
<td>Obl</td>
<td>52</td>
<td>65</td>
</tr>
<tr>
<td>Total</td>
<td>459</td>
<td>2729</td>
</tr>
</tbody>
</table>

This is likely the result of the difference in narrative vs. spontaneous speech data. The distribution across grammatical roles of all referring expressions representing new referents is shown in Table 11.

In sum, the role constraints of Preferred Argument Structure are supported in child Inuktitut spontaneous speech data since only a very small percentage of the referring expressions appearing in the A role are either lexical or new. Interestingly,
Table 11. Distribution of referring expressions representing new referents across grammatical roles

<table>
<thead>
<tr>
<th>Referring expressions representing new referents</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>0.9</td>
</tr>
<tr>
<td>Sce</td>
<td>26</td>
<td>5.7</td>
</tr>
<tr>
<td>Sx</td>
<td>44</td>
<td>9.6</td>
</tr>
<tr>
<td>Si</td>
<td>170</td>
<td>37.0</td>
</tr>
<tr>
<td>O</td>
<td>163</td>
<td>35.5</td>
</tr>
<tr>
<td>Obl</td>
<td>52</td>
<td>11.3</td>
</tr>
<tr>
<td>Total</td>
<td>459</td>
<td>100.0</td>
</tr>
</tbody>
</table>

however, the number of lexical referring expressions in the 0 role, and to a lesser extent in the Si role, is substantially lower than in the other languages considered. We return to this issue in the discussion below.

Relationship between morphological form and recency of mention

The results for each of the four constraints above certainly suggest that there is strong correlation between grammatical and pragmatic information in determining the distribution of referring expressions across grammatical roles in Inuktitut child speech. It is evident that both lexical and new referring expressions tend to avoid appearing in the A role, and it is rare to find two lexical or two new arguments in the same clause. Further investigation shows more clearly the direct relationship between recency of mention and morphological form. Table 12 illustrates that referring expressions are more likely to be represented as lexical (or demonstrative) when they denote new referents than when they do not. Table 13 illustrates that a lexical (or demonstrative) form is more likely to represent a new referent than is an affixal form. In addition, it is interesting to note that 50% of all arguments in the A role representing new referents are lexical, compared with 15.4% in Sce, 29.5% in Sx, 23.5% in Si, and 10.4% in 0. We return in the discussion below to the relatively low percentage of new O’s which are lexical.

Use of first and second person pronominal arguments

Although first and second person pronouns are not considered grammatical in argument positions, the children in this data set did occasionally use them. The complete set of utterances with verbs in which they were produced is given in (15).

Table 12. Morphological form across categories of recency of mention

<table>
<thead>
<tr>
<th></th>
<th>New</th>
<th>%</th>
<th>Non-new</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>Lexical</td>
<td>112</td>
<td>24.5</td>
<td>125</td>
<td>4.6</td>
<td>237</td>
<td>7.4</td>
</tr>
<tr>
<td>Demonstrative</td>
<td>165</td>
<td>36.1</td>
<td>181</td>
<td>6.6</td>
<td>346</td>
<td>10.9</td>
</tr>
<tr>
<td>Affixal</td>
<td>180</td>
<td>39.4</td>
<td>2425</td>
<td>88.8</td>
<td>2605</td>
<td>81.7</td>
</tr>
<tr>
<td>Total</td>
<td>457</td>
<td>100.0</td>
<td>2731</td>
<td>100.0</td>
<td>3188</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 13. Categories of recency of mention across morphological form

<table>
<thead>
<tr>
<th></th>
<th>New</th>
<th>%</th>
<th>Non-new</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
<td></td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>Lexical</td>
<td>112</td>
<td>47.3</td>
<td>125</td>
<td>52.7</td>
<td>237</td>
<td>100.0</td>
</tr>
<tr>
<td>Demonstrative</td>
<td>165</td>
<td>47.7</td>
<td>181</td>
<td>52.3</td>
<td>346</td>
<td>100.0</td>
</tr>
<tr>
<td>Affixal</td>
<td>180</td>
<td>6.9</td>
<td>2425</td>
<td>93.1</td>
<td>2605</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>457</td>
<td>14.3</td>
<td>2731</td>
<td>85.7</td>
<td>3188</td>
<td>100.0</td>
</tr>
</tbody>
</table>

(15) a. *Uvanga maaniikainnaluq!*
   uvanga ma-an-ii-it-kainnaq-juq
   I/me/my/mine here-LOC-be-PAsT-PAR.3sS
   was here! (Lizzie 3;3)
   (trying to reclaim the place where she was previously standing, now taken by someone else)

b. *Uvanga inutuulunga.*
   uvanga inutu-u-lunga
   I/me/my/mine single.person-be-i cre.1sS
   ’I’ll be alone: (Lizzie 3;3)
   (wanting to stand on the bed alone, without her friends who are currently on the bed)

c. *Uvagut sinilangagunnaiqugut?*
   uvagut sinik-langa-gunnaiq-vugut
   we/us/our/ours sleep-Fox-not.be.permitted.to-IND.1pS
   ’Are we not permitted to sleep?’ (Elijah 2;9)
   (asking his mother whether he and his companions are permitted to go to sleep, probably since he knows he should stay awake while being videotaped)
In (15a–b), the pronouns used serve a specific function of contrast and emphasis, in that Lizzie is trying to assert her right to stand in a certain spot instead of her friend, or be on the bed by herself instead of her friends also being there. The pronoun in (15c) does not seem to have a contrast function, since Elijah does not seem to be contrasting his right to sleep with anyone else. However, it is possible that he is contrasting his right with that of the videographer, or of a character on television, and that this contrast does not come across explicitly on the videotape. An interesting feature of the utterance in (15a) is the use of the third person verbal cross-referencing affix when the utterance is clearly talking about first person subjects. It may be that Lizzie's awareness that pronouns are prohibited in combination with first person affixes prompts her in this case to alter the affix in order to feel comfortable using the pronoun.

In addition, a few equational utterances without verbs contained first and second person pronouns, as shown in (16) (note that these utterances were not included in the analysis, but are shown here to further the argumentation above). Each of these utterances was used to identify the make-believe play roles of the speakers or their playmates.

(16) a. Uvanga Raapa.
   uvanga Raapa
   I/me/my/mine Raapa
   'I'm Raapa.' (Paul 3;3)

b. Ivvit Taksisaan.
   ivvit Taksisaan
   you/your/yours Taksisaan
   'You're Taksisaan,' (Paul 3;3)

c. Inuppaalu uvanga.
   inupaaluk uvanga
   giant I/me/my/mine
   'I'm a giant.' (Louisa 3;6)

d. Uvanga anaana.
   uvanga anaana
   1/me/my/mine mother
   'I'm a mother.' (Paul 3;3)

The pronouns in these utterances also all serve a contrastive function, since in each case the child in question is contrasting the make-believe role specified in the utterance with the make-believe role of another child. While these utterances would most likely be expressed as equational with a copular verb in adult language, they are not as strongly dispreferred as the utterances in (15).

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**A word about ergativity**

One of the main points made by Du Bois (1987) with respect to Preferred Argument Structure is that the distribution of arguments he observed provides a potential discourse basis for an ergative case system and an ergative pattern of information flow in discourse. In Sakapulteko, the roles which take absolute case (Si and 0) are preferred for introducing new referents in discourse. Thus, Du Bois (1987:834) states that "...the absolute syntactic position constitutes a sort of grammatically defined <staging area> — reserved for accommodating the process, apparently relatively demanding, of activating a previously inactive entity concept".

Since Inuktitut is an ergative language, it is interesting to speculate whether this may also be true for Inuktitut. Table 11 above, in fact, reveals that the same two roles (Si and 0) share about equally the burden of representing new referents in discourse in the Inuktitut data considered here. Thus, the pattern in Inuktitut is comparable to that in Sakapulteko. It is interesting that Rubino (1996) did not find this pattern in his corpus of Yup’ik narratives, since Yup’ik is a member of the same language family as Inuktitut. Rubino rather found that obliques were the preferred role for introducing new referents in his data: 62.7% of all new referents appeared in Obl, in comparison with 13.7% in Si and 7.8% in 0.

This completes the review of the results of our investigation of the adequacy of the Preferred Argument Structure constraints in adequately accounting for the distribution of arguments in Inuktitut child speech. In the following sections, we discuss in more detail two issues arising from these results.

**Discussion**

Several issues of interest arise from the investigation of the Preferred Argument Structure constraints in Inuktitut child speech. Although these constraints were overall shown to hold in Inuktitut, two main differences were found from the typical pattern of argument distribution in other languages. First, child Inuktitut evidences a relatively low percentage of lexical arguments overall in comparison with the other languages under review, and particularly in the Si and 0 roles. Second, the percentage of transitive clauses in the Inuktitut corpus is much lower than the percentage of intransitive clauses, and the ratio between these two is substantially different from Sakapulteko, Korean and, to a lesser extent, Yup’ik. In this discussion section, we consider various hypotheses to explain these two differences.

**Overall lack of lexical referring expressions**

One of the most noticeable characteristics of the Inuktitut child language in the
present corpus is the overall lack of lexical referring expressions — a mere 7.8% of all referring expressions (only 5.1% of arguments) in the data set. This stands in contrast to some 44.2% lexical referring expressions in Sakapulteko adult narratives. In addition, the number of lexical Si’s (5.5%) and lexical O’s (6.0%) is quite low in comparison with other languages (98.1% lexical S and 45.9% lexical O in Sakapulteko; 3% lexical Se, 53-68% lexical Sx, 28-32% lexical Si and 30-42% lexical O in Korean). We present here four possible reasons for this phenomenon in Inuktitut.

Data type and information pressure
The first hypothesis involves the types of data under study and the relative information pressure associated with them. Recall that the Inuktitut data treated in this paper all derive from spontaneous speech, while Du Bois’s work on Sakapulteko derives from oral narrative data. It is well known that the type of data used, and the situation in which it is collected, has some effect on choice of morphological form. Thus, data from oral narratives collected in situations in which the narrator is telling a story to a stranger exhibit high information pressure. Neither the details of the story nor the background experiences of the two participants are shared, and none of the referents are in the current physical context of the discourse, so a high percentage of the information must be made explicit, often in the form of lexical NPs. On the other hand, data from spontaneous conversation between friends and family members exhibit relatively low information pressure. The participants share some degree of common background and often some degree of familiarity with the topic of conversation, so much of the information does not need to be made explicit and a higher percentage of pronominal or affixal forms are expected. This may be particularly true in conversation involving young children where most of the conversation concerns objects and activities present in the physical context. In addition, there is likely to be a much higher percentage of first and second person forms in spontaneous speech data than in narrative data recounting the story of a film.

Du Bois (1987) particularly chose situations of high information pressure within which to conduct his study in order to have the maximum potential occurrence of lexical NPs. The Information Pressure Quotient of his corpus, defined as the ratio of new humans to clauses, is .153 or an average of an introduction of a new human referent every 6.6 clauses (Du Bois 1987:834). The Information Pressure Quotient of our Inuktitut corpus is .025 (62 new humans in 2446 clauses), or an average of an introduction of a new human referent every 39.5 clauses. Since the Inuktitut corpus analyzed here is of relatively low information pressure, we would expect it to manifest a lower percentage of lexical NPs. 17

To test this hypothesis, we first examined the distribution of first, second and third person referring expressions in the data. We found that only 48.6% of all referring expressions in the data set are third person (see Table 18), leaving 51.4% which are first and second person and therefore cannot be lexical. Of those third person referring expressions, only 16.1% are lexical. Interestingly, 39.6% of lexical third person referring expressions denote referents that are absent from the physical context of the discourse, and 43.9% referents that are new (note that these two categories overlap substantially). By comparison, only 9.1% of non-lexical third person referring expressions denote absent referents, and 28.2% denote new referents.

These results indicate that person of the referent, presence of the referent in the physical context of the discourse, and to a lesser degree newness of the referent, are key factors in determining the morphological form of the referring expression. Since these are all important components of determining information pressure, it is not surprising that the percentage of lexical referring expressions differs substantially between the Inuktitut data set on the one hand and the Sakapulteko set on the other. However, this factor of information pressure cannot explain the difference in lexical forms between the Inuktitut and Korean data sets, since both these are presumably of low information pressure. It also does not explain the lack of lexical O’s and Si’s in comparison with the number of lexical forms in other grammatical roles.

Development and increase of lexical uses with age
A second possible explanation for the relatively low number of lexical referring expressions in the Inuktitut data may have to do with the relative grammatical complexity of the language of the subjects. When the Inuktitut data samples are broken down into three groups of increasing grammatical complexity as listed in Table 5 above, it is clear that more lexical referring expressions are used at the more advanced stages. These figures are shown in Table 14. This is also true for lexical forms in the Si and O roles specifically. The number of lexical forms in the Si role increases from 2.3% in group 1 to 9.9% in group 3, and those in the O role increase from 2.9% to 9.9%.

In addition, the number of clauses with one lexical argument increases from 7.1% (2.9% of transitive) in group 1 to 15.3% (11.8% of transitive) in group 3, as shown in Table 15. Note also that the only instance of a clause with two lexical arguments (shown in (14)) is from the grammatically most advanced data. Study underway of Preferred Argument Structure in Inuit adult spontaneous speech data will undoubtedly shed further light on the hypothesis that the number of lexical forms increases in tandem with an increase in overall grammatical complexity. Once again, however, this hypothesis explains the difference between Inuktitut and Sakapulteko data, but not between Inuktitut and Korean data. Since the Korean subjects are slightly younger than the Inuit subjects, they would not be expected to produce more lexical forms than the Inuit under this hypothesis.
The role of pronominals and demonstratives
A third possible explanation for the relatively low number of lexical referring expressions involves the role of pronominals and demonstratives in Inuktitut compared to Sakapulteko and Korean. Inuktitut is not typical of many of the languages in which Preferred Argument Structure has been studied so far in that it does not normally permit pronominals in argument roles in any person. However, demonstratives are permitted as third person arguments. While it is not clear from other literature an Preferred Argument Structure how demonstratives are treated, this issue comes into clear focus in Inuktitut. Demonstratives in Inuktitut are similar to pronominals in other languages in that they do not give all the information contained in a lexical NP. However, they are dissimilar in that they have more lexical weight than does the typical pronominal (Ariel 1990:73), including giving information about relative location and dynamicity of motion. In terms of function, demonstratives in Inuktitut seem to function in some cases like lexical forms in other languages, such as in introducing new referents (17a), in some cases like demonstratives, such as in differentiating one item from other similar items (17b), and in some cases like pronominal or affixal forms, such as in referring to non-new referents.

Table 14. Morphological form of referring expressions by groups

<table>
<thead>
<tr>
<th></th>
<th>Lexical</th>
<th>Demonstrative</th>
<th>Affixal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>21</td>
<td>2.7</td>
<td>73</td>
<td>9.3</td>
</tr>
<tr>
<td>Group 2</td>
<td>102</td>
<td>6.4</td>
<td>179</td>
<td>11.2</td>
</tr>
<tr>
<td>Group 3</td>
<td>137</td>
<td>14.5</td>
<td>100</td>
<td>10.6</td>
</tr>
<tr>
<td>Total</td>
<td>260</td>
<td>7.8</td>
<td>352</td>
<td>10.6</td>
</tr>
</tbody>
</table>

Table 15. Number of lexical arguments per clause by groups

<table>
<thead>
<tr>
<th></th>
<th>No lexical arguments</th>
<th>One lexical argument</th>
<th>Two lexical arguments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>585</td>
<td>97.5</td>
<td>15</td>
<td>2.5</td>
</tr>
<tr>
<td>Group 2</td>
<td>1192</td>
<td>95.1</td>
<td>61</td>
<td>4.9</td>
</tr>
<tr>
<td>Group 3</td>
<td>649</td>
<td>88.3</td>
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<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>2426</td>
<td>93.7</td>
<td>161</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Thus, it is not clear whether arguments represented by demonstratives should in some instances be grouped with those represented by lexical NPs or with those represented only by verbal cross-referencing affixes in order to provide results more comparable to other languages.

Let us take the One Lexical Argument Constraint as an example. If we were to assume that demonstratives function mostly like lexical forms in Inuktitut, and thus grouped demonstrative and lexical forms together, figures for the one non-affixal argument category would be considerably higher than those for the one lexical argument category in Table 6, as shown in Table 16. These figures are much more similar to Sakapulteko, Korean and Yup’ik data than figures for lexical arguments alone, though they are still substantially lower.

This hypothesis would also help to explain the low percentages of lexical forms in Si and O roles. Demonstrative forms serve an important function in representing referents particularly in the O role, as shown in Table 8 above. This function, across both O and Si roles, seems to be primarily drawing attention to referents in the physical context which have not yet entered into discourse, as in (17a) above, and distinguishing referents from other potential similar referents in the physical context, as in (17b) above (see Clancy (this volume) for more detailed treatment of these functions in Korean child language). Not surprisingly, such uses of demonstrative forms are most often also accompanied by a pointing or touching gesture indicating the referent in question. As one quantitative example of the important role of demonstratives, Table 17 gives the percentages of new referents represented by the three morphological forms for all roles as well as for Si and O roles individually.
Table 16. Transitivity and number of non-affixal arguments per clause

<table>
<thead>
<tr>
<th>No non-affixal arguments</th>
<th>One non-affixal argument</th>
<th>Two non-affixal arguments</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Transitive</td>
<td>428</td>
<td>69.4</td>
<td>185</td>
</tr>
<tr>
<td>Intransitive</td>
<td>1425</td>
<td>87.3</td>
<td>268</td>
</tr>
<tr>
<td>Equational</td>
<td>141</td>
<td>86.0</td>
<td>23</td>
</tr>
<tr>
<td>Existential</td>
<td>111</td>
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<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>2105</td>
<td>81.3</td>
<td>479</td>
</tr>
</tbody>
</table>

Further research would be very fruitful in uncovering in more detail the exact nature of the function of demonstratives in Inuktitut, and in comparing them with the function of different morphological forms in other languages. Until then, however, it is certainly important to bear in mind that this is a factor that must be taken into account in assessment of the use of lexical forms in Inuktitut.

The role of verbal cross-referencing affixes

A final hypothesis that may explain the difference between Inuktitut and Korean data with regard to percentage of lexical forms involves the role of verbal cross-referencing affixes in each of these languages. Inuktitut has a rich system of verbal cross-referencing affixes for both subject and object, while Korean has no verbal cross-referencing affixes at all. Since arguments in Inuktitut are always represented affixally, the need for an additional lexical item in the form of a lexical NP or demonstrative may well be decreased to only those instances which crucially require it, such as to denote a contrastive referent, a new referent or a referent which is not in the physical context of discourse. In Korean, however, there is no verbal cross-referencing inflection so lexical and pronominal arguments are the only ways to indicate any features of the referent. It may well be, then, that the lack of affixal forms in Korean leads to more cases than in Inuktitut in which the referent would be unclear without either a lexical or pronominal specification of the referent, and that lexical NPs would be used more than pronominals for this purpose. However, note that this hypothesis would not explain differences between Inuktitut and Sakapulteko data since the latter also has a rich system of verbal cross-referencing affixes. In any event, this hypothesis merits further investigation with other languages of typologies which vary in this respect.

Summary

In the above section, we have raised four possible hypotheses to explain the lower percentage of lexical forms in Inuktitut data than in Sakapulteko and Korean. These include the type of data involved and the resulting information pressure associated with it, the increase in use of lexical forms with increase in grammatical complexity in language, the relative role of pronominals and demonstratives across the three languages, and the role of verbal cross-referencing affixes in Inuktitut and Korean. Each of these undoubtedly plays some part in the differences across languages, depending on the structural typology and information packaging patterns of the languages in question. These four factors, as well as the interaction between them, likely account for most of the reason for the overall low number of lexical forms in the Inuktitut data. The low number of lexical Si’s and O’s is related both to the relative grammatical complexity of the data set and to the function of demonstrative forms in comparison with lexical forms in these roles.

Ratio of transitive to intransitive clauses

A second interesting feature of these data in contrast with data from other languages is that there is a substantially higher proportion of intransitive than transitive clauses. Our Inuktitut corpus contains 27.4% transitive clauses, while Du Bois’s (1987:819) Sakapulteko corpus contains 40.4% transitive clauses, Clancy’s (this volume) Korean corpus contains 50% transitive clauses, and Rubino’s (1996:146-147) Yup’ik narratives vary from 26.0% transitives for a retelling of a true incident to 37.7% for the pear story and 40.5% for a retelling of a mythological tale. We briefly discussed the possibility above that this difference might be due to the type of data analyzed. We consider below the possibility that this difference also reflects the frequent use of detransitivizing processes in Inuktitut and the role played by the animacy hierarchy in the distribution of agents and patients across the four different constructions in Inuktitut that permit both agent and patient to be expressed.

Detransitivizing processes

Inuktitut offers three possible detransitivizing processes through which to represent clauses containing both agent and patient: passive, antipassive, and noun incorporation. While a full treatment of the different discourse functions of these processes is beyond the scope of this paper, we describe each briefly as relevant for our purposes.

Table 17. Morphological forms used to represent new referents

<table>
<thead>
<tr>
<th></th>
<th>Lexical</th>
<th>Demonstrative</th>
<th>Affixal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Si</td>
<td>90</td>
<td>23.5</td>
<td>44</td>
<td>25.9</td>
</tr>
<tr>
<td>O</td>
<td>17</td>
<td>10.4</td>
<td>75</td>
<td>46.0</td>
</tr>
<tr>
<td>All roles</td>
<td>112</td>
<td>24.5</td>
<td>165</td>
<td>36.1</td>
</tr>
</tbody>
</table>
The passive in Inuktitut, like in other languages, serves to promote the patient from 0 to S while demoting the agent from S to Obl, in accompaniment with certain morphology on the verb. Most of the passive clauses in the present data are basic passives without overt subjects or agentive phrases, as in (18a). However, eleven of the passives have overt agentive phrases, as in (18b), and nine have overt subjects, as in (18c). There are 62 passive clauses in the Inuktitut corpus.

(18) a. Küjaautsaruarama.
   kii-jau-tsaruaq-gama
   bite-pAss-might-csv.1sS
   `I might really get bitten.' (Elijah 2;0)

b. Itsumunga aijaugovit.
   itu-munga ai-jau-gavit
   that.one-ALLsG get-PASS-csv.2sS
   `You will be brought by that one.' (Louisa 2;10)

c. Tigujaunngituq Pita?
   tigu-jau-nngit-juq Pita-o
   take-PASS-NEG-PAR.35S Peter-ASS.SG
   `Peter won’t be taken away?' (Lizzie 3;3)

In contrast, the antipassive serves to demote the agent from A to S, and to demote the patient from 0 to Obl, also in accompaniment with certain verbal morphology. The antipassive morpheme on the verb in Inuktitut may take a small number of phonetic forms or may not be phonetically overt. Patients in the oblique role, if overtly expressed, take modalis case. Thus, antipassives may be indicated either through phonetically overt antipassive affixation on the verb (19a), through modalis case marking on the patient nominal (19b), through both these means (19c), or through neither of them. In the latter case, the contextual situation or verb semantics usually indicates presence of an antipassive patient, often through analogy with an adjacent parallel utterance (20b), though of course the identification of such patients is open to interpretation. There are 155 antipassive clauses in the Inuktitut corpus (32 with an antipassive morpheme an the verb, 61 with a lexical or demonstrative patient, 16 with both a verbal morpheme and an overt patient, and 41 with neither).

(19) a. Qatisigit
   qai-tsi-git
   give-ATP-IMP.2sS
   `Give me some!' (wants a can of soda) (Louisa 3;2)

b. Piiaarakkanik atjiliurama.
   piiaraq-kkanik atjiliuq-a-gama
   baby-MoD.1S.PL film-ATP-csv.1sS
   `I took a picture of my babies,' (referring to dolls) (Paul 3;3)

c. Piganik aitsilaurlanga?
   pi-ganik ai-tsi-lauq-langa
   thing-mon.1SSG get-ATP-10L-IMP.lsS
   Shall I get my thing?' (referring to her sunglasses) (Lizzie 3;3)

(20) a. Taatsuminga takulaargit?
   ta-u-ninga taku-o-2s-llaq-vit
   ANAPHORIC-this.011e-MOD.SG see-ATP-FUT-INT.2SS
   `Will you see this one?' (Mother)

b. Takulaanninama.
   taku-o-llaq-ngt-gama
   See-ATP-FUT-NEG-CSV.1SS
   `I won’t see (her): (Elijah 2;5)

In noun incorporation, the patient of the verb appears as part of the verbal word. The patient serves as a nominal base, which then becomes verbal through affixation of a verbalizing morpheme and the appropriate verbal cross-referencing affix. In Inuktitut the verbalizing morphemes involved in noun incorporation may only serve as affixes, in contrast with languages such as Mohawk in which the forms which serve to verbalize nominal bases may also serve as independent verbs (Mithun 1984). Thus, noun incorporation in Inuktitut is not as free as passivization or antipassivization to serve as host to all the agent-patient pairs in the discourse since it is limited to use with only a small number of possible verbs (17 in this data Set), which typically cannot be expressed using other constructions (e.g., transitive) since these verbs appear in the language only as affixes, without counterpart or equivalent independent verbs. Noun incorporation clauses mostly appear in this data set without lexical or demonstrative subjects, as in (21a), but 5 do appear with demonstrative subjects, as in (21b), and 12 appear with lexical subjects, as in (21c). There are 166 noun incorporation clauses in the Inuktitut corpus.

(21) a. Nasagaringit.
   nasaq-qaq-ngit-juq
   hat-have-NEG-PAR.3sS
   'He doesn’t have a hat.' (Louisa 3;6)

b. Ugungsusurialangajualuguna.
   uquuqu-siuq-giaq-langa-juq-aluk-u-na
   animal-look.for-begin.to-FuT-PAR.3sS-EmPH-this.1one-Ans.sG
   `This (person) is going to go look for an animal: (Elijah 2;0)

c. Aataafta kuapaliasijuq?
   ataata-ga kuapaq-liaq-si-juq
   father-Ans.1S.so coop-go.to-pRsp-PAR.3sS
   `Is my father going to the co-op?' (Louisa 3;2)
The clauses containing these three types of detransitivizing processes together number 384, and make up 23.5% of the intransitive clauses in the present data set. Note that two-argument structures all together make up 44.5% of the total clauses (excluding equational and existential clauses) in the data set, a figure similar to that for Sakapulteko, Korean, and Yup’ik.

Agents and patients in paired relationships are distributed across clauses of the three detransitivizing types as well as transitive clauses in a pattern that respects the animacy hierarchy. We first describe briefly the animacy hierarchy, and then present the distribution of data across the various types of agent-patient clauses.

**Animacy hierarchy**

It has long been noticed in the literature (e.g., Dixon 1979, Comrie 1989) that the property of animacy inherent to nominals plays an important part in the structural relationship between nominals in discourse. Most discourse is oriented first to the speaker, then to the addressee, and then to third persons and inanimates, along the lines of the hierarchy proposed by Dixon (1979:85):

\[
1 > 2 > 3 \text{ pronoun} > 3 \text{ proper noun} > 3 \text{ common noun}
\]

Since speakers tend to think in terms of what they do to others rather than what is done to them, the first person pronoun is more likely than any other constituent to be in the A role rather than the 0 role. Next most likely is the second person pronoun, and so an down the hierarchy. Comrie (1989: 128) notes that there is a strong tendency for information flow from A to 0 to correlate with information flow from more to less animate, such that the most natural kind of transitive construction is one in which A is high in animacy and O is lower than A in animacy. In general, the argument in the lower Position in a clause should not outrank the argument in the higher position. This hierarchy predicts, then, that A will be a dispreferred site for third person arguments, and especially for inanimate third person arguments. In agent-patient pairs in which the patient ranks higher than the agent, several strategies can be used to avoid violating the animacy hierarchy. For example, a passive construction is often used to promote the patient to a role (S) higher than the agent (demoted to Obl). We discuss below how the animacy hierarchy affects the distribution of person and animacy characteristics across grammatical roles in the present data. Note that both Du Bois (1987:840-844) and Clancy (this volume) find effects of both person and animacy of referent in their respective data sets.

**Non-third-person and animate A constraints**

There is a strong relationship in Inuktitut data between the person and animacy of arguments and their morphological form and recency of mention. As previously found in both Sakapulteko and Korean, the placement of third person arguments and inanimate arguments in the A role in Inuktitut is strongly dispreferred. Figures for person are shown in Table 18. Recall that first and second person arguments in Inuktitut may not normally be represented by other morphological forms than verbal cross-referencing affixes. Also, by definition, first and second person arguments are never new. The observed pattern, then, suggests the obvious: that one will only find lexical and/or new arguments where one also finds third person arguments.23 Note that the predominance of first and second person A’s is clearly a feature of spontaneous speech data that would not be expected in narratives which do not involve talk about the speaker or hearer.

It is interesting to note that all the clauses with third person A’s respect the animacy hierarchy: one human A with human 0, five inanimate A’s with inanimate O’s, and ten human A’s with inanimate O’s. All the clauses with lexical A’s are of the latter type. All the clauses with inanimate A’s are cases of doll play in which the doll is the A in question. Depending on one’s coding preferences, one might choose to call these cases ones of human A’s since the doll is essentially being treated as human in these instances. Examples are given in (22) through (24) respectively. Examples (7c), (8c) and (14) above also show the pattern indicated in (24).

\begin{align*}
(22) & \text{Human A, Human 0} \\
& \text{Sauniapirlalu aipparikainmatanga.} \\
& \text{sauniq-apik-aluk-o aippaq- gi-kainnaq-j anga} \\
& \text{namesake-Dim-Empri-Aas.so companion-have.as-PAsT-PAR.3sS.3s0} \\
& \text{`His big namesake was with him.' (Elijah 2:9)} \\
& \text{[lit. `He had his big namesake as a companion]} \\
& \text{(talking about the relationship between two men who visited earlier)}
\end{align*}

\begin{align*}
(23) & \text{Inanimate A, Inanimate 0} \\
& \text{Una atukallarulu. [= Una atutillugu.]} \\
& 1.1-11a \text{ atuq-kallaq-guluk [atuq-tit-luge]} \\
& \text{this.one-ABs.sG USC-DIM-DIM [use-sw.aaa-rom.3sS.3s0]} \\
& \text{Shell use this one: (Lizzie 2:10)} \\
& \text{(talking about a piece of clothing that a doll will wear)}
\end{align*}

\begin{align*}
(24) & \text{Human A, Inanimate 0} \\
& \text{Qaalatinnatanga.} \\
& \text{qaapiq-kainnaq-janga} \\
& \text{burst-PAsr-PAR.3sS.3s0} \\
& \text{`He burst it.' (Paul 3:3)} \\
& \text{(talking about his brother bursting a balloon)}
\end{align*}
Table 18. Distribution of persons across grammatical roles

<table>
<thead>
<tr>
<th></th>
<th>First person</th>
<th>Second person</th>
<th>Third person</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>328</td>
<td>273</td>
<td>16</td>
<td>657</td>
</tr>
<tr>
<td>Se</td>
<td>25</td>
<td>51</td>
<td>88</td>
<td>164</td>
</tr>
<tr>
<td>Sx</td>
<td>27</td>
<td>22</td>
<td>125</td>
<td>174</td>
</tr>
<tr>
<td>Si</td>
<td>616</td>
<td>281</td>
<td>736</td>
<td>1633</td>
</tr>
<tr>
<td>O</td>
<td>49</td>
<td>39</td>
<td>529</td>
<td>617</td>
</tr>
<tr>
<td>Obl</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1045</td>
<td>666</td>
<td>1618</td>
<td>3329</td>
</tr>
</tbody>
</table>

Table 19. Distribution of animacy categories across grammatical roles

<table>
<thead>
<tr>
<th></th>
<th>Human</th>
<th>Animal</th>
<th>Inanimate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>610</td>
<td>0</td>
<td>6</td>
<td>616</td>
</tr>
<tr>
<td>Se</td>
<td>102</td>
<td>6</td>
<td>49</td>
<td>163</td>
</tr>
<tr>
<td>Sx</td>
<td>62</td>
<td>4</td>
<td>103</td>
<td>169</td>
</tr>
<tr>
<td>Si</td>
<td>1072</td>
<td>37</td>
<td>425</td>
<td>1534</td>
</tr>
<tr>
<td>O</td>
<td>117</td>
<td>11</td>
<td>478</td>
<td>606</td>
</tr>
<tr>
<td>Obl</td>
<td>27</td>
<td>10</td>
<td>84</td>
<td>121</td>
</tr>
<tr>
<td>Total</td>
<td>1990</td>
<td>68</td>
<td>1144</td>
<td>3202</td>
</tr>
</tbody>
</table>

There is also a very strong constraint in the data against inanimate as indicated in Table 19. Even the six instances of inanimate As indicated in the table are somewhat misleading since they are all cases in which the A in question is a doll being treated as a human. One example is given in (23) above; another is given in (25). These data in combination indicate that the animacy hierarchy is being fully respected in relations between A and 0 in transitive clauses. The A role is predominantly filled by first and second person animates, while the 0 role is predominantly filled by third person inanimates. No violations of the animacy hierarchy occur in the present data set. Note that animacy data for Korean child language (Clancy this volume) are strikingly similar to the Inuktitut data.

(25) Ainngitait.
ai-nngit-jait
get-NEG-pAR.2sS.3s0
‘You won’t get it’ (Lizzie 2;10)
(telling the doll she’s playing with that she wodt get the paper Lizzie is holding)

Table 20. Distribution of characteristics of nominals in agent roles

<table>
<thead>
<tr>
<th></th>
<th>Transitive subject</th>
<th>Antipassive subject</th>
<th>Passive agentive</th>
<th>Noun incorporation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>PERSON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/2</td>
<td>601</td>
<td>97.4</td>
<td>102</td>
<td>68.0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>2.6</td>
<td>48</td>
<td>32.0</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>617</td>
<td>100.0</td>
<td>150</td>
<td>100.0</td>
<td>11</td>
</tr>
<tr>
<td>ANIMACY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animate</td>
<td>610</td>
<td>99.0</td>
<td>0</td>
<td>0.0</td>
<td>6</td>
</tr>
<tr>
<td>Inanimate</td>
<td>6</td>
<td>1.0</td>
<td>133</td>
<td>91.1</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>616</td>
<td>100.0</td>
<td>146</td>
<td>100.0</td>
<td>11</td>
</tr>
<tr>
<td>RECENCY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-new</td>
<td>609</td>
<td>99.3</td>
<td>133</td>
<td>91.7</td>
<td>4</td>
</tr>
<tr>
<td>New</td>
<td>4</td>
<td>0.7</td>
<td>12</td>
<td>8.3</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>613</td>
<td>100.0</td>
<td>145</td>
<td>100.0</td>
<td>8</td>
</tr>
<tr>
<td>FORM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affinal</td>
<td>610</td>
<td>98.9</td>
<td>136</td>
<td>90.7</td>
<td>0</td>
</tr>
<tr>
<td>Demonst</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>2.7</td>
<td>3</td>
</tr>
<tr>
<td>Lexical</td>
<td>7</td>
<td>1.1</td>
<td>10</td>
<td>6.6</td>
<td>8</td>
</tr>
</tbody>
</table>
| Total            | 617| 100.0| 150| 100.0| 11 | 100.0| 166| 100.0| 953| 100.0

Distribution of argument characteristics across agent and patient roles

The data in Tables 18 and 19 leave open the question of how relationships between third person agents and first, second and third person patients are expressed within one clause. We hypothesize that the frequent use of the three detransitivizing processes in Inuktitut described above may provide an answer to this question, since these oller alternative ways to express agents and patients in the same clause. We therefore investigated the distribution of four characteristics of nominal referents (person, animacy, recency of mention, and morphological form) in agents and patients across the four structures which permit expression of both agent and patient (transitive, antipassive, passive, noun incorporation). The distribution of agent characteristics is summarized in Table 20, while the distribution of patient characteristics is summarized in Table 21.

Several interesting patterns arise from the figures in these tables. First, as already discussed, the A role is filled almost exclusively by first and second person, animate, non-new arguments. Third person agents appear in each of the three other
Table 21. Distribution of argument characteristics within patient roles

<table>
<thead>
<tr>
<th></th>
<th>Transitive object</th>
<th>Antipassive patient</th>
<th>Passive subject</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>person</td>
<td>ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERSON</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>112</td>
<td>88</td>
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<td>14.3</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>529</td>
<td>80</td>
<td>100.0</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>617</td>
<td>80</td>
<td>100.0</td>
<td>62</td>
</tr>
<tr>
<td>ANIMACY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animate</td>
<td>128</td>
<td>17</td>
<td>22.1</td>
<td>51</td>
</tr>
<tr>
<td>Inanimate</td>
<td>478</td>
<td>60</td>
<td>77.9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>606</td>
<td>77</td>
<td>100.0</td>
<td>60</td>
</tr>
<tr>
<td>RECENCY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-new</td>
<td>440</td>
<td>77</td>
<td>100.0</td>
<td>60</td>
</tr>
<tr>
<td>New</td>
<td>163</td>
<td>33</td>
<td>46.5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>603</td>
<td>71</td>
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<td>60</td>
</tr>
<tr>
<td>FORM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affixal</td>
<td>431</td>
<td>0</td>
<td>0</td>
<td>53</td>
</tr>
<tr>
<td>Demonstrative</td>
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<td>18</td>
<td>22.5</td>
<td>4</td>
</tr>
<tr>
<td>Lexical</td>
<td>37</td>
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<tr>
<td>Total</td>
<td>617</td>
<td>80</td>
<td>100.0</td>
<td>62</td>
</tr>
</tbody>
</table>

While it is undoubtedly true that a number of factors affect the distribution of agents and patients across these four clause types in Inuktitut, the animacy hierarchy certainly seems to be one of these factors. Almost all the agents in this data set are human, so violations of inanimates ranked above animates is not an issue. The main shifting patterns, then, seem to follow the distribution of person. Third person agents almost never appear in the A role, but rather in the less highly ranked S or Obl roles, as subject of antipassive or noun incorporation clauses, or in the agentive phrase of passive clauses. First and second person patients which would outrank third person agents almost all appear in the passive subject position, so that they are in a higher position (S) than the agents which are demoted to Obl.

Summary

Since the use of detransitivizing processes is so frequent in Inuktitut, at least partly in order to avoid violations of the animacy hierarchy, there are less transitive clauses in Inuktitut than there might be in other languages which do not use detransitivization processes so frequently. It would be most interesting to investigate the use of detransitivizing processes in Sakapulteko, Yup’ik and Korean for purposes of comparison with the Inuktitut data.

Conclusion

This paper has explored the distribution of arguments across grammatical roles with respect to their morphological form and degree of recency of mention in spontaneous speech data from four Inuit children aged 2;0 through 3;6. The investigation detailed herein reveals that these children uniformly follow the statistical patterns of Preferred Argument Structure described by Du Bois (1985, 1987). Thus, Inuit children produce maximally one lexical and/or new argument per clause, and tend not to place lexical or new arguments in the A role. In fact, the factors of morphological form and recency of mention are not independent, since arguments are more likely to be represented as lexical when they denote new referents. In addition, the ergative pattern of information flow found by Du Bois is replicated in these Inuktitut data.

Two main issues of interest arise in contrasting the Inuktitut data with data from Sakapulteko (Du Bois 1987), Yup’ik (Rubino 1996), and Korean (Clancy this volume). First, the Inuktitut data show a much lower percentage of lexical forms than do data from the other languages. Several reasons for this are explored, including the type of data investigated and the resulting information pressure, the relative grammatical complexity of the language of the subjects, the relative role of demonstratives across these languages, and the role played by the presence of verbal cross-referencing affixes. Each of these factors seems to contribute to the relatively low number of lexical forms in Inuktitut.

Second, the Inuktitut data show a lower percentage of transitive clauses than do data for the other languages. The difference in type of data investigated is likely one contributor to this discrepancy. Another main contributor is the frequent use of detransitivizing processes in Inuktitut (passive, antipassive, noun incorporation). Further investigation of the latter reveals that the animacy hierarchy has an important
role in Inuktut in determining the distribution of agents and patients across clause types that allow expression of both these referents. Since third person referents and inanimate referents almost never appear in the A role, the use of detransitivizing processes serves in part to accommodate placement of third person and inanimate agents, especially in combination with first or second person animate patients.

The data presented here add information to the growing body of research on Preferred Argument Structure from an age range of subjects and a language family which have had relatively little treatment with respect to Preferred Argument Structure.

Notes

* We wish to thank Pat Clancy, Jack Du Bois, Michael Fortescue, Lorraine Kumpf, Marianne Mithm, Carl Rubino, and Tony Woodbury for helpful comments and discussions an earlier version of this paper. Data collection for this study was funded by grants from the Kativik School Board and the Social Sciences and Humanities Research Council of Canada, for which we are most grateful. Our greatest debt is to the subjects of this study and their families for allowing themselves to be videotaped, and to the many Inuit who patiently transcribed and checked and discussed the data.

1. Terminology used is as follows. The term referent is used to denote the object in the real world that is represented linguistically. The term referring expression is used to denote the nominal expression that is used to represent the referent linguistically. The term argument is used to denote that referring expression which is required by any given verb as a subject or object of that verb.

2. The term verbal cross-referencing affix is used here to denote the affix on the verb which indicates information about the subject and object of the verb. This affix has been called “verbal inflection,” “verbal agreement” and “pronoun argument” among other things, depending on the theoretical persuasion of the writer. One issue relevant to appropriate terminology is whether the verbal cross-referencing affix is actually the argument itself, with independent (lexical, demonstrative or pronominal) representations of the relevant referent serving as adjuncts, or whether the verbal cross-referencing affix is really an agreement marker, while independent representations of the relevant referent are the true arguments. This issue has not been resolved for Inuktut, and thus a relatively neutral terminology is used here.

3. The following grammatical abbreviations are used in Blosses:

   Nominal case: abs = absolutive; all = allative; cont = contemporative; erg = ergative; inc = incontemporative; loc = locative; mod = modals; via = viatical.

   Verbal modality: csv = causative; imp = imperative; ind = indicative; intr = interrogative; par = participial (functionally equivalent to indicative in Tarramiut).

   Word-internal morphlogy: atf = antipassive; caus = causative; dim = diminutive; imp = emphatic; ft = imperative; inc = indicative; nec = negative; pass = passive; reas = past; pol = politeness (preceding imperative); pros = prospective aspect; sw = switch reference.

   Verbal inflection (e.g. PAR 3sS): 1 = first person; 2 = second person; 3 = third person; s = singular; p = plural; s = subject; o = object.

   Nominal inflection (e.g. abs, sc = singular; pos = possessive).

   Possessed nominal inflection (e.g. unG 3s1): 1 = first person possessor; 2 = second person possessor; 3 = third person possessor; s = singular possessor; sc = possessive; pl = plural possessor.

4. Attributes for each example give the name of the subject who produced the utterance cited and their age in the format years;months (rounded to the closest month). Attributes for adults do not include age information.

5. Frequent use of first and second person pronouns in argument Position has been observed in one specifically language impaired Inuktut-speaking child aged 5;0 (Crago & Allen 1996). Her family found this practice so unusual that they nicknamed her ‘tivak-waungaraq’ ‘nute little I-you’.

6. Note that Yup’ik does permit use of first and second person pronouns in argument position (Jacobsen 1984).

7. These and all other names used in this chapter are pseudonyms used to protect the identity of the subjects.

8. Note that clauses whose main verbal component is a word which begins with a verbal root but ends as a nominalized construction were not included in the analysis.

9. Inuktut has a large number of predicative verbs, such as ‘be big’ and ‘kunav-sad’. Clauses containing these verbs were treated as intransitives rather than equalitons, since they share the same structure as intransitives in Inuktut. All of these, 282 intransitive (17%), 159 transitive (26%), and 112 equational clauses (7%) were missing either a verb root or cross-referencing affix or both.

Each clause was also coded for clause type, including simple active, complex active, passive, antipassive, causative, and noun incorporation. Results differing by clause type are not discussed in detail in this paper since numbers of some clause types are too small to reach any sound conclusions. In general, however, results for all clause types taken together did not differ substantially from those for only simple active clauses.

12. Note that Du Bois (1987) limited the category new only to referring expressions mentioned for the first time in the narrative. He considered all referring expressions mentioned more than 20 utterances previously in the narrative as accessible, and grouped them for analysis with the given referring expressions. However, he also noted that very few referring expressions fell into the accessible category. While this classification seemed appropriate for time limited adult narratives, it seemed too free for child spontaneous speech occurring in chunks of up to two hours. Therefore, we defined 20 utterances as the cutoff point between new and non-new for our data.

13. Clancy gives separate figures for each of the two children in her study; we represent both figures rather than averaging them.

14. The total number of clauses analyzed for this and several subsequent tables is slightly smaller than the total number of clauses overall since clauses which contain arguments which are not identifiable for the feature being analyzed are omitted from the analysis.

15. Note that there are no affixal obliques, since obliques are not marked in the verbal cross-referencing affix, and since we conservatively did not code any obliques which were not phonetically overt, even when they were indicated by the argument structure of the clause (e.g., patient of antipassive, agent of passive, second object of causative or double object construction).

16. Totals for A and 0 in this table differ slightly from totals in Table 7 since some instances occurred in which either A or 0 was not identifiable as to recency of mention. For instance, we did not code for recency of mention for WH-question words in such utterances as the equivalent of ‘who ate the cake?’. For a clause to appear in Table 7, both arguments had to be identifiable in this regard.

17. Preliminary results of eliciting narratives based on picture books in Inuktut show this to be true. Children age 8 use a significantly higher proportion of lexical NPs in telling the frog story (Mayer 1969) than de the present children, age 2;6-3;6, in spontaneous speech. This effect seems to be primarily a result of modality of talk, and not of age difference.
18. The increase in use of lexical forms by group is much larger for referring expressions which represent new referents (12.4% in group 1 vs. 32.5% in group 3), inanimate referents (4.1% vs. 24.9%), and third person referents (6.3% vs. 28.3%) (Allen 1998).

19. On the other hand, it is worth noting that some 93% of demonstrative arguments used in the child Inuktitut data are ones which denote a relatively close and static referent. In these data, that, the children are not making use of the wide variety of possible demonstratives available in their language, partly because they are mostly talking about referents that are close by and partly because they have not yet learned the Full range of demonstrative options available. This evidence may be taken to indicate that demonstratives do not give any more information than pronouns for these children, and thus should be treated as pronouns in analysis of Preferred Argument Structure constraints.

20. Patricia Clancy (personal communication) suggests that there may be various other reasons for the higher rate of lexical As in Korean than in Inuktitut. She notes that one of her subjects frequently imitated adult utterances and tended to preserve lexical subjects even when they had just been mentioned. Additionally, she notes that contrast was common with agents since many of them were making clear who would get to per form some desired action, etc. It would clearly be fruitful to compare Inuktitut and Korean data in more detail, taking such factors into account. Note that none of the Inuktitut-speaking children in this study referred to themselves in the third person, as often happens with English-speaking children, and as was the case with Clancy's children's contrasts.


22. Note that only antipassive obliques which are phonetically overt are included in the counts in this paper. This includes 80 of the 150 total antipassive uses in the data set.

24. One might expect the frequency of detransitivizing processes to be the same in Yup'ik and Inuktitut, since both are Eskimo-Aleut languages. However, Tony Woodbury (personal communication) reports that Yup'ik does not have as high a frequency of use of detransitivizing processes as in these Inuktitut data, and that passive constructions are rarely used in Yup'ik thought they are possible syntactically.

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Preface

Since the time of the earliest work on the theory of Preferred Argument Structure some years ago, there has emerged not only a new set of researchers but also a new generation of ideas. The chance to explore and debate new approaches to discourse and grammar, with the focus that a specific shared topic like Preferred Argument Structure could provide, brought a group of researchers together at the University of California, Santa Barbara in the spring of 1995, at the invitation of the editors of this volume. The motivation was not so much reconfirmation of prior results as building from a common starting point toward new explorations and discoveries, as signaled by the conference’s irreverently prophetic title: Preferred Argument Structure: The Next Generation. (This has metamorphosed into a more dignified and theoretically informative title for the present publication.) In seeking to develop, challenge, and extend the theory of Preferred Argument Structure, we were especially fortunate to have those three days of intense interaction in Santa Barbara: trying out ideas, debating the consequences, taking away new questions. Since then we have made good use of the stimulation of other perspectives, as the peaceful confrontation of ideas continues to inform the thinking of each of us, a process now come to fruition in the present volume. (Two of the papers in this volume, by Arnold and by Allen and Schroder, were not originally presented at the conference.) It can be said that all the papers in this book are marked by an eagerness to push the original model in new directions. Indeed, the best promise of this work lies in what may yet be realized through new perspectives like those presented here.

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John W. Du Bois
Lorraine E. Kumpf
William I. Ashby
Santa Barbara and Long Beach