Introduction

It has been generally observed (e.g., Li and Thompson 1976) that East-Asian languages such as Chinese, Japanese, and Korean have certain common features such as following:

1. Topic-orientedness
2. Double nominative constructions
3. Long-distance anaphoric patterns (e.g., "ziji" in Chinese, "zibun" in Japanese, and "caki" in Korean).

Firstly, one of the long established characteristics of languages such as Chinese, Japanese, and Korean is their context dependence, or to put it in Li and Thompson's (1976) terminology, their "topic-orientedness." Unlike other pro-drop languages (e.g., those in the Romance family) empty pronouns in East-Asian languages are licensed not by strong agreement but their ability to be identified via strong contextual or discourse features. The second common feature, double nominative constructions, represents their ability to generate two subject positions. These languages also consistently exhibit long-distance anaphoric patterns (e.g., "zibun" in Japanese and "caki" in Korean). Even though each of these common features has been widely discussed, their interplay has not been thoroughly investigated. In this paper, we will sketch the interaction of the first two features in order to account for the third one.

The relevance of contextual factors in accounting for long-distance anaphoric patterns has also been repeatedly stressed in the literature in various forms (Perspectivity (Iida 1996), Logophoricity (Sells 1987), or Point of View (Kuroda 1973, Banfield 1982, Zribi-Hertz 1989)). On the other hand, syntactic conditions on the subjecthood condition which states that the Japanese long-distance anaphor zibun allows a subject antecedent, but not a nonsubject one (Kuroda 1965, Kuno 1973) have also been put forward for the explanation of this phenomenon. Research for this paper was partially supported by the Faculty of Arts at the University of Edinburgh. I am indebted to Ronnie Cann and George Tsoulas for ideas and detailed comments on earlier versions of this paper. I would also like to thank Ivan Sag and Masayo Iida for their helpful discussion. All errors are mine.
Long-Distance Anaphora. It is not, however, always clear whether these conditions are proposed in order to replace the contextual ones or to be taken in conjunction with them. In this paper, we will propose an account of long-distance anaphora in more structural and formal terms rather than dependent on contextual factors. By reconsidering data in Korean, usually cited in favor of the contextual/discourse approach to long-distance anaphora, we will argue that the phenomenon can be best explained within the interaction of the common properties of East-Asian languages: Topic-orientedness and Double Nominative constructions. That is, caki-binding in Korean in the relevant data is very closely related to topicalized constructions which, as we claim, are closely related to the null topic constructions and share the same underlying structure with the Double Nominative construction in Korean.

2 The Basic Facts and Previous Accounts

The long-distance anaphora caki can take an argument antecedent across a number of clause boundaries (1a), but can also be bound by a Topic in what at first appears to be a non-argument position which contravenes the A-binding requirement for anaphors. (1a) John-i Bill-ekey Mary-ka caki-lul

malhaysta-ko told 'John told Bill that Mary likes self'

(1b) John-i Bill-ekey Mary-ka caki-pota

kuta-ka height more 'As for John, his daughter is taller than self'

We will not discuss the examples like (1a) where the antecedent is bound by the antecedent itself; rather, in this paper we will focus on the examples which are known to be subject to some discourse factors.

Wewillnotdiscusstheexampleslike(1a)wheretheanaphorisboundbytheantecedentlocallyorinahigherclause,forwhichcasenumberofsyntacticandnonsyntacticapproachesareproposed.Rather,inthispaperwewillfocusontheexampleswhichareknown tobesubjecttosomediscoursefactors.
(b) and (c) show the case where a topic-marked noun phrase antecedes *caki.* The difference between the two is that in the former, *caki* occurs as a comple-
ment of the *A* and in the latter as a genitive-marked element within the subject NP. These examples are often considered as a case of discourse binding with an emphasis on the discourse functions of topic (see Huang 1984).

There is also a set of data which has been provided as the evidence of the

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c. John-un caki-ka kass-ta

As for *John,* *self-NOM*-go-PAST-DE

---

John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE

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John-un caki-ka kass-ta

As for John, *self-NOM*-go-PAST-DE
The most fundamental hypothesis is that a syntactic topic, be it overt or not.

3 Topic Binding in Double Nominative Constructions

The binding in such context is licensed only in double nominative constructions. One possible approach is to claim that the topic constituent is licensed in double nominative constructions by virtue of its being the syntactic topic. However, this approach is problematic. Firstly, it fails to account for the phenomenon of the discourse topic being the antecedent of the reflexive in double nominative constructions. Secondly, it does not explain the phenomenon of the discourse topic being the antecedent of the reflexive in double nominative constructions. Furthermore, it does not provide a good explanation for the phenomenon of the discourse topic being the antecedent of the reflexive in double nominative constructions.

Can we reduce the explanation of the phenomenon to a structural account?

The answer we suggest in the next section will involve the following:

There is always an overt or covert topic phrase that binds the long-distance reflexive. The binding is licensed only in double nominative constructions (DNC).

The most fundamental hypothesis is that a syntactic topic, be it overt or not, is always available and provides the antecedent of the reflexive in double nominative constructions. Therefore, the binding of the reflexive in double nominative constructions is dependent on the presence of the topic constituent.
The Long-Distance Anaphora Conspiracy

(4) A. Mary-ka
Mary-NOM
ku
the
pati-e
party-to
kass-ni
went-Q
anim
or
tarun
other
salam-i
person-
NOM
taysin
instead
kass-ni?
'Is it Mary who went to the party or someone else instead?'

B. Ani,
No,
['e]
self
kasse
went
'No, [e] self went'

In B of (4), the topic phrase is shown to bind 'cat' and is not overt. As shown in (5), the first nominative nominal can be readily top-marked

(5) a. John-i/un
John-NOM/TOP
money-i
issta
exist
'John has money'

b. Mary-ka/nun
Mary-NOM
/ TOP
hair-ka
yellow
is
'Mary's hair is yellow'

c. LA-ka/nun
LA-NOM
/ TOP
Korean-i
man
is
LA has many Koreans

As shown in (5), the first nominative nominal can be readily top-marked with '-nun'. The outer nominative can be considered an argument of the complex predicate created by the combination of the inner nominative and the with '-nun'. The outer nominative can be considered an argument of the complex predicate. The contrastive focus (Choi 1996). Also note that in double nominative constructions the outer nominative without an overt antecedent are understood to be double nominative constructions. If these second nominative nominal is marked with -nun, it gives a reading of the contrastive focus (Choi 1996). Also note that in double nominative constructions the second nominative nominal is marked with -nun, it gives a reading of the contrastive focus (Choi 1996).
This proposal, however, is not, as it stands, really dependent on the sentences being double nominatives.

There is, however, evidence which clearly suggests that this is indeed the case. This evidence comes from the range of semantic relations that must hold between the topic that we postulate and the rest of the sentence, and the ones holding between the outer nominative and the derived predicate of which it is an argument.

The relations in question are precisely the ones of alienable possession (5a), inalienable possession (5b), part-whole (5c) and identity which are the only ones that occur between the outer and inner nominative in a double nominative construction.

As for the examples we have seen for caki-binding, the relation in (1b) is alienable possession, the relation in (1c) is identity, which is the same in B of (2). Moreover, in the following example, as an answer to the question in (2), double nominative construction:

It then follows that topic binding of caki can only occur in a

\[
\text{Inalienable possession relation}
\]

the same in B of (2), and as we observe other corresponding examples involving

the same in B of (2), and as we observe other corresponding examples involving
In a discourse approach, this example will not differ from (2) and hence does not call for caki in (4) is not a topic in discourse.

To sum up, we argue that the binder for caki in (4) is not a topic in discourse.

\[ (8) \] John TOP BILL the book ACC-DET

\[ \text{give} \]

\[ \text{Bill-un} \]

\[ \text{Bill-i} \]

\[ \text{caki-ekey} \]

\[ \text{self-DAT} \]

\[ \text{chayk-ul} \]

\[ \text{book-ACC} \]

\[ \text{ku} \]

\[ \text{gave} \]

\[ \text{Bill} \]

\[ \text{John} \]

\[ \text{the book} \]

\[ \text{self} \]

\[ \text{give} \]

\[ \text{Bill} \]

\[ \text{the book} \]

\[ \text{self} \]

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\[ \text{Bill} \]

\[ \text{the book} \]

\[ \text{self} \]

\[ \text{give} \]
The last question that remains is what allows the topic not to be expressed explicitly in (4). The answer is related to the topic-orientedness of Korean. In a highly discourse-oriented language like Korean, topic phrases are very often suppressed in sentences subsequent to the first occurrence of the topic. Consider the following examples:

(9) A. Yong-\text{-}\text{NOM} \, nuwku-hako-\text{PST}\, ssawa-\text{DC}\, Q
'WhodidyousayYongfoughtwith?'

B. Heyn-hako-\text{PO}
'WithHyen' (Chang1995,p.200,ex.57(c-d))

Given the topic Yong in the initial dialogue A in (9), B's reply is elliptical: the topic is not repeated. And once the topic is introduced in the initial clause, it is suppressed in the subsequent sentences or realized in a pronoun form. Otherwise, the same topic is repeated as shown below:

(10) Mia-nun ko-sam-i, tway-yo.
Thehigh-three becomes.

In the above discourse setting, why is the topic in the first sentence not repeated?

4 Topic-Orientedness and the Expression of Topics
The failure of licensing can also be found when there is more than one prominent topic in the discourse and when the topic is not properly reintroduced to disambiguate between those prominent topics. Such a case can be shown in (3) where Mary and John are equally prominent in discourse and when the topic is not properly resumed.

In this paper, we adopt the hypotheses of Manning (1996) and Manning and Sag (1999) that binding principles are stated on a level of syntacticized argument structure. On the basis of this, the constraint on double nominal binding can be formulated as follows.

\[ \text{ARG-STAT} \]

In this way, the chain of overt or covert topics is rather systematic. Understanding this chain of topics, which is inherently asymmetric, is the key to resolving the problem of split antecedents. In this way, the chain of overt or covert topics is rather systematic. Understanding this chain of topics is critical to resolving the problem of split antecedents. In this way, the chain of overt or covert topics is rather systematic.
As for the basic mechanism of this lexical rule, the input of the rule should be

\[
\begin{array}{c}
\text{ARG-ST} \\
\text{CONX} \\
\text{TOPIC} \\
\text{CON} \\
\text{VAL} \end{array}
\]

\[
\begin{array}{c}
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\{NP\} \oplus \{NP\} \\
\end{array}
\]

Double Nominative Construction Lexical Rule

DNC (1997)
Below is due to the fact that the topic is underspecified, and the outer nominal is not covered. Furthermore, the other nominal is covered, there is a contextual backup which allows the recovery of the content of the missing element as indicated in (12).

In this case, even though the outer nominal is covered, there is a contextual backup which allows the recovery of the content of the missing element as indicated in (12).
In this paper, we have looked closely at the data of long-distance anaphora, which have been widely treated by discourse accounts, and tried to reduce the explanation of the phenomenon to a more formal and structural account. We have argued that the data in question is an instance of topic binding where the topic phrase is licensed in an outer nominative nominal position in double nominative constructions. Also, exploiting the fact that Korean is a highly topic-oriented language, the topic antecedent of *caki* can be either covert and not repeated, or overt to disambiguate or reintroduce a topic. This proves to be an adequate account of long-distance anaphora and, furthermore, having been implemented in HPSG, it turns out to be a more formal account in comparison to discourse approaches.

In conclusion, we brought together a set of seemingly unrelated properties of a particular set of languages under a special mode of interaction of the syntactic, semantic and pragmatic components of linguistic theory and showed that this set of properties instead of being a mere curiosity and interesting set of "real features" in fact represents a tightly knit network and one of the best (perhaps the optimal) solutions to the long-distance anaphora problem.

References


THE LONG-DISTANCE ANAPHORA CONSPIRACY


Department of Linguistics
University of Edinburgh
AFB, 40 George Square
Edinburgh EH8 9LL, UK
gil@ling.ed.ac.uk