

SEMANTIC FACTORS AND THE ROLE OF SEMI-FORMULAIC PATTERNS IN INTERLANGUAGE VARIATION

SAKODA, Kumiko

Hiroshima University, Assistant Professor

This study, based on the acquisition of Japanese demonstratives and certain case particles, provides evidence that semantic factors can be a source of variation. The findings indicate: i) There are few indications of language transfer in learners' variable uses of the demonstratives and the particles under study. ii) The learners' variable outputs are conditioned by the semantic features of noun phrases that co-occur with the demonstratives and the particles. iii) Specifically, the learners are producing output on the basis of the combinatorial patterns, in which the semantic features provide crucial environmnents for the selection of the two non-proximetal demonstratives A- and SO- and the two locative particles NI and DE.

Keywords: Japanese, second language acquisition, interlanguage, demonstratives, particles, semi-formulaic patterns, semantic factors

1. INTRODUCTION

The language produced by second language learners is called 'interlanguage' (Selinker, 1972) and is characterized by variability. Some of this is systematic in nature and the distribution of variants in interlanguage uses is consistent. According to the literature, two sets of factors; situational factors (e.g. addressee, purposes and topics) and

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linguistic factors (e.g. phonological and syntactic context) have been identified to account for systematic variation. Both have received much attention in second language acquisition research (Tarone 1983; Wen 1986; Ellis 1988). Linguistic factors might be further subdivided into interlingual and intralingual factors. While interlingual factors are those affected by learners' native language, intralingual involves how learners intake L2 data. This study is concerned with these interlingual and intralingual factors which affect the production of specific features, regarding Japanese demonstratives and particles. The following two questions were asked.

① Is there language transfer in learners' variable uses regarding the most difficult part of the usages of demonstratives SO- and A-, and also particles NI and DE?
② What affects the learners' variable uses regarding those usages?

1.1 Variation in Interlanguage

It may now be safely assumed that interlanguage is systematic. The interlanguage which the learner has constructed at any stage of development is an internally consistent system. However, it has also been accepted that interlanguage is also variable. Each interlanguage which the learner forms contains alternative rules for performing the same function. On some occasions one rule is used, on another a different rule. There are also variations in the course of development that learners follow.

That interlanguage is on one hand systematic and on the other, variable, seems to be contradictory. However, theoretical developments indicate that systematicity and variability are reconcilable, describing variable rules underlying native speaker performance. Tarone (1983) hypothesized that interlanguage, like any other natural language, is systematically variable. Furthermore, it has been proposed by Ellis (1985) that interlanguage is composed of a series of variable systems. According to his study, there are two major types of variability; situational and linguistic. While situational variability is concerned with factors such as addressee, purposes and topics, linguistic is concerned with factors such as syntactic and phonological environment. In other words, it can be an intralingual factor. This is evident when the language user varies his use of linguistic forms according to the linguistic environment. For example, Labov (1970) examined the copula in Black English and found that the presence or absence of the copula was related to its syntactic position. Dickerson (1975) also found that the

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phonetic quality of specific phonemes produced by Japanese learners of English varied according to the phonetic environment.

An interlingual factor should be also examined as well as an intralingual. That is, it might be argued that a systematic variation is influenced by the learner's first language (language transfer). The cause of variation in the sequence of development in second language acquisition has been and remains a matter of debate. One group of researchers have argued that there is a defined 'natural' order (Dulay, Burt and Krashen, 1982). The other has argued that variability in the order of development can take place as result of first-language transfer (Wode, 1980). Schumann (1979) provides an overview of a range of studies of negation in second language acquisition and also reported that there are some differences among learners between German, Norwegian and Spanish. In order to account for those variabilities, it requires that both intralingual and interlingual factors be considered. With this in mind, I shall first investigate in what way interlanguage is structurally variable and whether there is an influence of language transfer or not. I shall then investigate what kind of linguistic factors affect the systematic variation.

1.2 Formulaic Speech in Second Language Acquisition

Formulaic speech consists of "expressions which are learned as unanalysable wholes and employed on particular occasions by native speakers" (Lyons, 1968: 177). It has been argued that formulaic speech is useful in establishing and maintaining relations (Fillmore, 1976) or serves no role in language acquisition and performance (Krashen and Scarcella, 1978). The literature indicates that the frequency of formulaic speech in second language performance is recognized by researchers (Hakuta, 1974; Wagner-Gough, 1978; Hanania and Gradman, 1977; Huebner, 1981) and it contributes to the acquisition of the creative rule system (Fillmore, 1976; Ellis, 1984). However Krashen and Scarcella (1978) insisted that formulaic speech and rule-created speech are unrelated. They introduced neurological evidence from cases of left hemispherectomy of patients who lose the ability to speak but are nevertheless still able to produce automatic speech. They stated that formulaic speech might be represented in the right hemisphere and creative speech in the left. Fillmore (1976) argued that formulaic utterances are eventually analyzed into their component parts and thereby contribute to the learner's creative rule system. Ellis (1984) investigated the role that formulaic speech plays in second language development with three children learning English and

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gave a conclusion that formulaic speech plays a significant part in the second language performance. The contribution of formulaic speech to rule-created speech has been extensively debated and it is still one of the crucial problems in the field of language acquisition. I would like to show some evidence of learners' use of Japanese in the form of formulaic patterns and conclude that these patterns could be the basis of analyzed learning.

2. JAPANESE DEMONSTRATIVES AND PARTICLES

2.1 Demonstratives

Table 1 shows demonstrative systems of Japanese, Korean, Chinese and English. Most of the demonstrative systems of the world's languages can be divided into two groups; one has a three term system like Japanese and Korean and the other a two term system like Chinese and English (Yoshida, 1980). Even they are in the same group, there are some differences in territories and usages among them.

Table 1 Demonstrative systems of Japanese, Korean and Chinese

	Proximal	Medial	Distal
JAPANESE	KO-	SO-	A-
KOREAN	I-	KU-	CE-
CHINESE	ZHE	NA	
ENGLISH	THIS	THAT	

Japanese demonstratives have two major usages; one is deictic and the other anaphoric. The deictic demonstratives point out referents directly (see (1)), while anaphoric ones are used in discourse (see (2)).

Deictic Usage

(1) A: (Pointing to a book on the table), **KORE** wa anata no hon?
Is **this** your book?

Anaphoric Usage

(2) A: Kyoo no jugyoo wa kyuukoo da yo.
Today's class is canceled.
B: **SORE** honto?

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Is **that** true?

Japanese use A- forms to indicate that the speaker thinks that the referent is a shared experience or mutual knowledge (see (3a.)), while they use SO-form to indicate that the speaker thinks that the hearer doesn't know the referent or that the referent is an abstract notion (see (3b.)).

(3) a. A: Kinoo eki de Tanaka san ni atta yo.
I met Mr. Tanaka at the station yesterday.
B: **ANO** hito, raigetsu shigoto de Amerika he iku souda yo.
I heard **that** man (=he) is going to the U.S. next month.
b. A: Kinoo eki de Tanaka san ni atta yo.
I met Mr. Tanaka at the station yesterday.
B: **SONO** hito, dare?
Who is **that** man?
A: Eh, shiranai no?
Oh, you don't know him?

Sakoda (1993) reveals that learners of Japanese have greater difficulty when they use anaphoric demonstratives than deictic. Also Sakoda (1996) finds that the most difficult part of the usages of demonstratives are SO- and A- shown in (4) among Chinese and Korean speakers.

(4) A: Itsu kekkon suru no?
When will you marry?
B: Sutekina hito ni deattara, ***ANO (SONO)** hito to kekkon shimasu.
When I meet the person who is wonderful, I will merry **that** person.

2.2 Particles

There are a lot of particles like WA, GA and WO representing case markers. They cause difficulty for learners even at the advanced level. Locative particles NI and DE are among the most difficult parts of the usages (Kubota, 1993; Inai, 1994). Actually the place of action is marked by DE, while the location of existence is marked by NI as in (5). Particles are strongly connected to the verbs with which they used, however learners often make mistakes, ignoring the rule as in (6).

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(5) Resutoran **DE** tabemashita.	Resutoran **NI** imasu.
I ate **at** a restaurant.	I am **at** the restaurant.
(6) Amerika ***DE(NI)** sunnde imasu.	Eki no mae ***NI(DE)** aimashoo.
I live **in** America.	Let's meet **in** front of the station.

3. HYPOTHESES

Sakoda (1996) conducted a longitudinal study over 3 years with 6 learners (3 Korean and 3 Chinese speakers) and revealed that the errors of A- demonstrative (instead of SO-) are observed most frequently, irrespective of native language. The example of error is shown in (4) as you saw before. She has also found that there is some consistent feature when the learners used demonstratives A- and SO- with noun phrases. That is, the learners use demonstrative A- with noun phrase(NP) which is concrete, while SO- with NP which is not concrete, as if the demonstrative-NP sequence is an unanalyzed pattern, as in (7).

(7) A-no hito/	A-no sensei/	A-no tomodachi	**A-demo. +NP[+concrete]**
that person	that teacher	that friend	
SO-no baai	SO-no kimochi	SO-nna koto	**SO-demo.+NP[-concrete]**
that case	that feeling	that thing	

Observing these data, it might be possible to build a hypothesis that semantic features of noun phrases might affect the choice of demonstratives by the learners of Japanese. Similarly, according to the results of cross-sectional studies (Kubota, 1993; Inai, 1994), the learners' use of NI and DE might also be affected by the semantic features of NP's, as suggested by the date in (8).

(8) naka NI/	mae NI/	aida NI	**NP[+relational]+NI**
inside (in)	in front	between	
ryoo DE	Tokyoo DE	eigakan DE	**NP[-relational]+DE**
at a dormitory	in(at) Tokyoo	in(at) a theater	

In this study the following two hypotheses as in (9) will be examined regarding the

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questions raised in the introduction.

(9) a. There is few indication of language transfer in learners' variable uses regarding the most difficult part of the usages of demonstratives SO- and A-, and also particles NI and DE.

b. The learners' variable uses of Japanese demonstratives and particles are affected by the semantic features of noun phrases with which they co-occur; the demonstrative A- co-occurs with NP[+concrete], the demonstrative SO- with NP[-concrete], and particle NI co-occurs with NP[+relational] and the particle DE with NP[-relational].

4. METHOD

4.1 Subjects

The subjects involved in this study were 60 learners who were studying at some language schools, colleges and universities in Japan. 'Others' in Table 2 consisted of subjects from England, Australia, Indonesia, Philippines and Germany. 20 Japanese native speakers were also examined as a control group.

Table 2 The Subjects of experiments

	studying(yr.)	residence(yr.)	age(yr. old)	M/F(n)	total(n)
Chinese	1.49	1.26	20～40	7/13	20
Koreans	1.46	1.38	20～40	6/14	20
Others	1.66	1.45	20～40	6/14	20
Japanese			20～50	3/17	20

4.2 Data Collection

The data was gathered from a multiple choice test. For the test for the demonstratives, the learners are required to choose A- and SO- demonstratives forms, such as 'ANO, ANNA, AAIU, SONO, SONNA, SOOIU'. 20 questions were examined with several dummy questions as shown in (10).

10 questions are for A- demonstratives with 5 NP[+concrete] and 5 NP[-concrete].

10 questions are for SO- demonstratives with 5 NP[+concrete] and 5 NP[-concrete].

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(10) Sutekina hito ga arawaretara, **( ) HITO** to kekkon suru wa.
When a nice person comes to appear, I will marry **( ) person.**

For the test for the particles, the learner was required to choose one particle from NI, DE, WO and TO. 32 questions were examined with dummy questions as shown in (11).
16 questions are for NI particle with 8 NP[+relational] and 8 NP[-relational].
16 questions are for DE particle with 8 NP[+relational] and 8 NP[-relational].

(11)**GAKUSEIKAIKAN ( )** Amerika kara no ryuugakusei ga 10 nin tomarimashita.
10 foreign students from the US. stayed **( ) the student house**.

5. RESULT

V.1 Demonstratives of A- and SO-

Figure 1 shows the mean percentage of correct answers per group and per NP. ANOVA (analysis of variance) was used to analyze the data. The results showed that the learners used A-form demonstratives with NP[+concrete) ($p<.001$) and SO-form demonstratives with NP[-concrete) ($p<.001$) irrespective of the difference in native language.

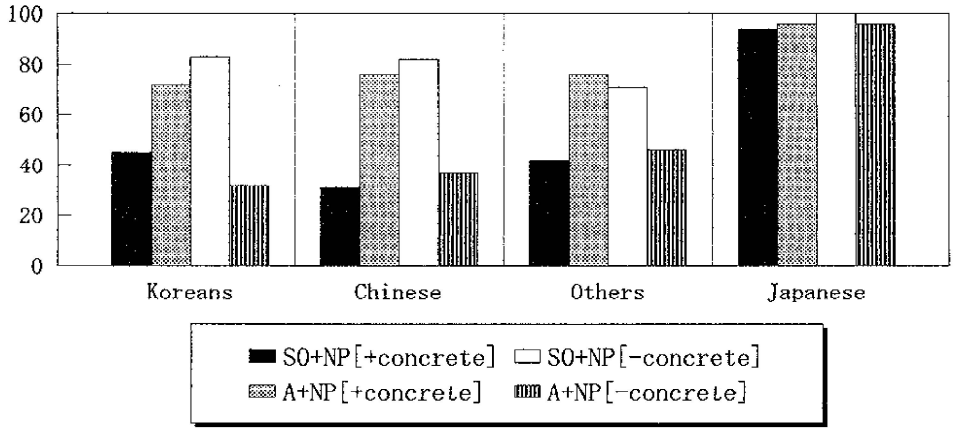

Fig. 1 Mean percentage of correct answers—Demonstratives A- and SO-—

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5.2 Particles NI and DE

Figure 2 shows the mean percentage of correct answers per group and per NP. Also ANOVA was used to analyze the data. The result showed that learners selected NI with NP[+relational] ($p<.001$) and DE with NP[-relational] ($p<.001$) irrespective of the difference in native language. According to the results from these two experiments, the hypotheses are proved.

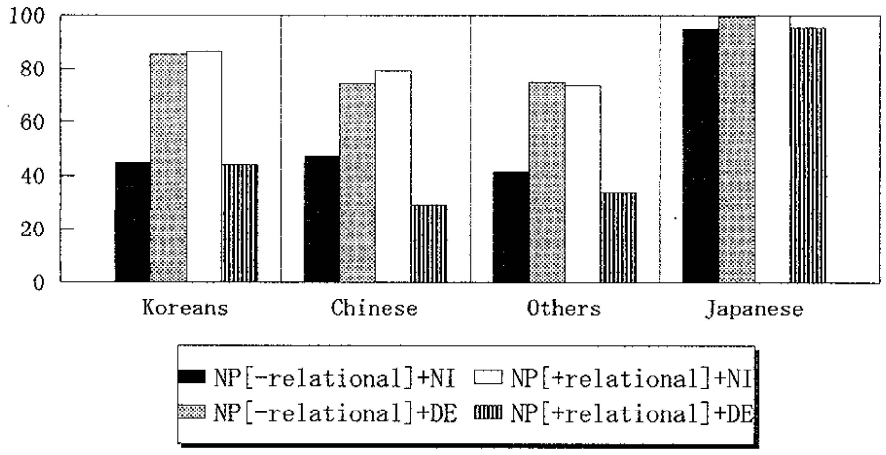

Fig. 2 Mean percentage of correct answers —Particles NI and DE—

6. DISCUSSION

According to the results of Fig. 1 and Fig. 2, some clear conclusions may be drawn. First, learners use demonstratives and particles with specific nouns compared to native Japanese and there is not much difference with regard to the problematic usage among learners irrespective of the difference in native language. The fact that there is little evidence of language transfer means that learners' native languages do not affect the acquisition of Japanese demonstratives or particles of these usages. In some areas, there appears to be some evidence of language transfer as reported in Sakoda (1996); however with regard to the most problematic part of demonstrative usage, the results show that learners use their own learning strategies irrespective of their first language. That is, there is little interlingual variation among learners concerning the use of Japanese demonstratives and particles. This can be interpreted that there is an interim

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grammar, or interlanguage, which learners build on their way to full target language competence.

The next finding, that learners use demonstratives and particles according to the semantic features of the co-occurring NP's, indicates two things. Firstly semantic factors could be responsible for systematic variation. As we have seen in previous studies, the learners' variable use was related to its syntactic position and phonetic environment. The findings of this study suggest that semantic factors could be significant and are related to variability in second language acquisition as well as syntactic and phonetic factors. We found evidence of language learners repeatedly using semantic strategies rather than syntactic ones. Sasaki (1991) reveals that second language learners of Japanese use semantic rather than syntactic strategies, using the Competition Model. The subjects are asked to say which noun is the agent of an action in acceptable sentences like 'UMA(a horse) TABERU(eat) NINJIN(carrots)' and in semantically unlikely sentences such as 'NINJIN(carrots) TABERU(eat) UMA(a horse)', where the animacy cue is in competition with the word order cue. Sasaki stated that among learners of Japanese there was clear evidence that animacy cues were of primary importance in the learners' responses, rather than word-order cues. The result of present study, that the learners use Japanese demonstratives and particles with nouns which have specific semantic features could support Sasaki's findings, that learners use semantic strategies, that is, that semantic factors play a significant role in second language learning.

Secondly the learners appeared to be able to operate on the basis of semi-formulaic patterns such as (12) and (13).

(12) A-form demonstratives + NP[+concrete] ex. ANO HITO (that person)
SO-form demonstratives + NP[-concrete] ex. SONO BAAI (that case)

(13) NP[+relational] + NI particle ex. NAKA NI (inside (in))
NP[-relational] + DE particle ex. TOKYOO DE (in (at) Tokyo)

As we have seen, formulaic speech, that is, unanalyzed chunks usually appear at the beginning of language learning (Hakuta, 1976); researchers have argued whether the speech promotes the acquisition or not. The result of this study supports evidence that learners use semi-formulaic patterns with nouns when they differentiate one

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demonstrative (or particle) from the other. Huebner (1979: 22) insisted that forms are introduced in one linguistic environment, then spread to other linguistic domains as the speaker revises his hypotheses about the language. To discover what these environments are, all occurrences of the form in question must be examined. His longitudinal study of a 23 year old male refugee learning English, demonstrated that in the acquisition of articles, the learner was apt to use the definite article 'the' with NP[+specific referent] and the indefinite article 'a' with NP[-specific referent] ignoring the information available to the hearer. Ellis (1988) also studied the acquisition of third person singular in English with three children and reported that they add 's' more often when they use pronouns than proper nouns. He stated learners use the semi-formulaic pattern such as 'he/she verb + s'. Unanalyzed chunks are phrases or sentences that are memorized as a whole. Semi-formulaic patterns, on the other hand, show learners' variable use which can be adjusted according to the semantic factors, such as whether following NP is concrete or not, relational or not. Bialystock and Sharwood Smith (1985: 107) states that the movement from the use of these as chunks.....to an understanding of their constituent structure frees the learner both to apply these to new context and possibly to understand a new organizing principle of the language. From this point of view, these semi-formulaic patterns indicate how learners develop analyzed learning from unanalyzed learning. In Huebner's words (1979: 22), variation is the precursor of change; in other words, a learning strategy of semi-formulaic patterns is the precursor of analyzed learning and plays a significant role in second language acquisition.

7. CONCLUSION

Based on the results of the study and their interpretation, there are three findings to be reported here (14).

(14) a. There are few indications of language transfer in learners' variable uses with respect to the problematic part of the usages of demonstratives A- and SO-, and also with particles NI and DE.

b. The learners' variable uses of Japanese demonstratives and particles were affected by semantic features of the NP's with which these forms co-occur; the demonstratives A- or SO- with NP, concrete or non-concrete and the particle NI or DE with NP, relational or non-relational.

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c. The learner operates on the basis of semi-formulaic patterns such as (i) and (ii);
(i) A- form and SO- form Demonstratives
A- + NP[+concrete] SO- + NP[-concrete]
(ii) NI and DE Particles
NP[+relational] + NI NP[-relational] + DE particle

In conclusion, the outcome of the study provides some evidence for the suggestion that there is a systematic variability among learners regardless of different mother tongues (see result (14 a.)). This evidence supports the interlanguage hypothesis, that is, second language learners have their own language system according to its acquisition phase. However, the result of the study does not mean that learners' native languages do not affect the acquisition of Japanese demonstratives and particles at all. As far as these usages are concerned, there is little evidence of language transfer. When and how language transfer occurs in second language acquisition remains open to debate.

The result of the study also supports the hypothesis that the distribution of grammatical variants in learner speech is sensitive to semantic context (see result (14 b.)). This provides that semantic factor plays an important role as well as syntactic and phonetic in second language acquisition.

Lastly the outcome of semi-formulaic patterns indicates that these patterns provide a basis for analyzed learning (see result (14 c.)). The learners have to differentiate one demonstrative (or particle) from the other by means of nouns which have specific semantic features in this stage. The learners need to attend to new features as organizing principles of the language. In this sense, learners' making semi-formulaic patterns is a precursor of the next stage of change, as Huebner stated.

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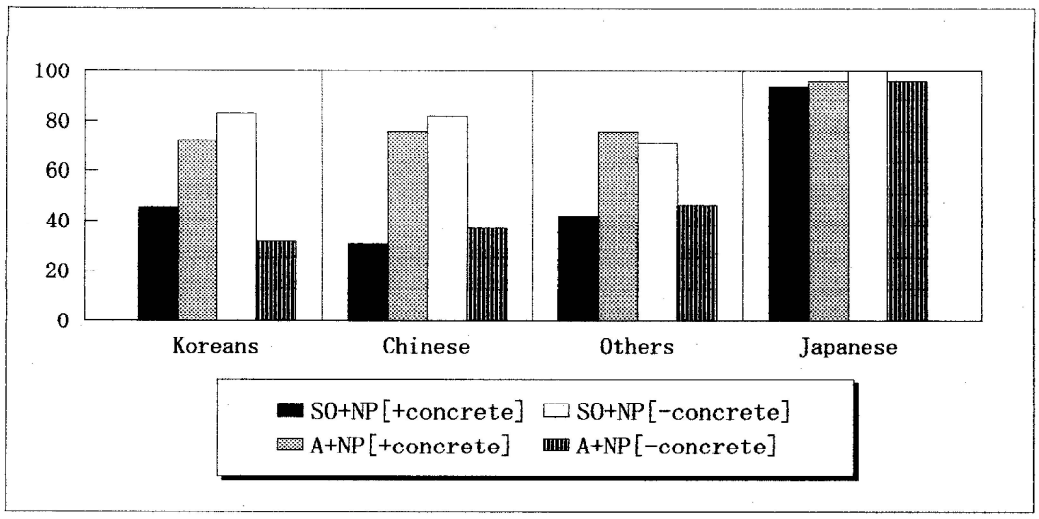

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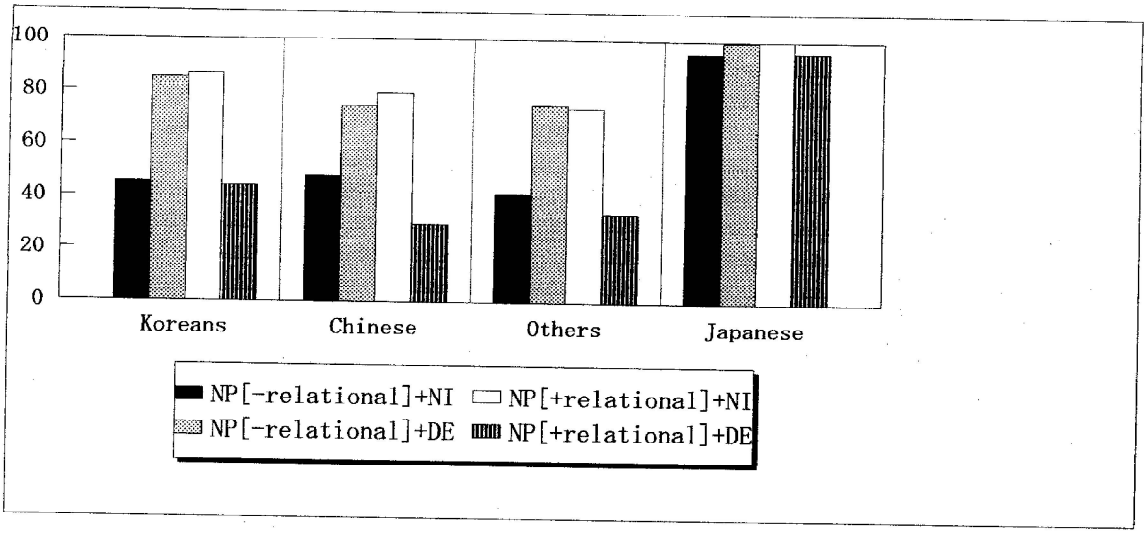

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