On the Manner of New Referent Distribution in Spontaneous English Narrative Discourse by Male Speakers[1]

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Abstract

Comparative analysis of the discourse of five female and six male speakers of American English sampled during identical narrative tasks reveals that, all things being equal, male speakers are more likely to use the *S* position as a slot for new referent introduction. In other words, neutralization of *S* and *O* categories seems to happen in the male narratives. In the male data examined, the manner of new referent distribution seems closer to that found in a morphologically ergative language such as Sacapultec (Du Bois 1987). This discrepancy between male and female discourse calls for further analysis of the discourses of the twelve remaining male speakers. This will allow us to extend the comparison to Kumagai's data on twenty female speakers (2004a, b), and furthermore, to examine whether the manner of new referent distribution in argument positions in male speech is as ergative as it is in Sacapultec, or whether the alignment pattern is, like female speech, constrained by the extent to which English is morphologically accusative.

1. Introduction

This study investigates the manner of new referent distribution in intransitive subjects using data pertaining to spontaneous narratives of six male speakers of American English; these narratives describe the *Pear Film*.

The argument is based on the study of differences between male and female speakers in terms of new referent distribution in spontaneous narrative discourse. The results have implications for the "preferred argument structure" (PAS) theory advocated by Du Bois (1985, 1987, 2003a, 2003b)

and by Du Bois et al. (2003a).

The preferred argument structure theory is briefly reviewed in the next section of this paper, followed by an overview of previous studies relevant to this paper. Section three presents some details of the discourse analysis, while section four presents the results of this analysis.

I will argue that there is a remarkable difference between female and male speakers in the way new referents are introduced into discourse. Statistical analysis indicates that, while the manner of new information management among twenty female speakers of American English is strongly accusative, as argued in Kumagai (2004a, forthcoming), this tendency is weakened and *S*–*O* neutralization is detected in the narrative data of the six males. As far as the male data examined are concerned, the manner of new referent distribution seems closer to that found in a morphologically ergative language such as Sacapultec, a Mayan language investigated by Du Bois (1987). These findings call for further analysis of the remaining data pertaining to sixteen male speakers executing the same task. This will enable comparisons involving female speakers of American English and of Sacapultec, and permit examination of whether English narrative discourse is consistent with its morphological case marking.

2. Brief Review of Previous Studies

2.1 *Preferred argument structure theory*

In his seminal work on discourse pragmatics, Du Bois (1987) pointed out that there are strong tendencies, if not strict rules, in the manner of new referent distribution in spontaneous discourse. Through his analysis of *Pear Film* narratives uttered by speakers of Sacapultec Maya, Du Bois argued that the speakers tend to avoid allocating new referents to the transitive subject position (henceforth, *A*). Du Bois argued that this phenomenon must obey what he terms the "given *A* constraint."

Du Bois argued that new referents are instead very likely to be introduced in the object (O) or intransitive subject (S) positions, as far as the clause-core argument positions are concerned. Since there tends to be at most one new referent per clause (Du Bois' "one new argument constraint"), spoken clauses contain at most one new referent, and this new referent is hardly ever likely to occur in the A position.[2]

Notably, the language Du Bois investigated is morphologically ergative, and more importantly, the case marking is parallel to the manner of new referent distribution, because S and O behave similarly in discourse. This similarity can be termed "discourse ergativity." Interestingly, Du Bois argued that even the intransitive subjects in morphologically accusative languages such as English and Japanese display a"latent pressure to ergativity" (1987: 843).

2.2 *Some Conceptual Problems*

2.2.1 *Latent but weak pressure to ergativity in English*

There are several problems with Du Bois' theory, although the constraints he proposed indeed encompass a number of languages other than Sacapultec and English (see Du Bois 2003a, b for details).

The first problem is whether S can *equally* behave like O in a morphologically accusative language. In other words, why does not the accusative language also behave "accusatively" in terms of new information management? Why is $S-O$ similarity observed in morphologically distinct languages such as Sacapultec and English, while the manner of morphological case assignment is divergent? The question merits serious consideration, if one takes a view that a linguistic form more or less reflects the pressure of language use (Du Bois 1985, 2003a, b).

In fact, in comprehensive discourse analysis of twenty female speakers of American English, Kumagai (2004a, b) found that the manner of new information management in English *Pear Film* narrative discourse, using data

directly comparable to the findings of Du Bois (1987), is quite consistent with the morphological case marking. This is counter to what one would expect according to Du Bois' theory. In other words, the post-verbal argument positions (e.g. *O* and Oblique) are far more likely to be used than is *S* (let alone *A*) for new referent introduction.

This finding is not incompatible with the constraints of PAS, but casts strong doubt on whether even a morphologically accusative language such as English may exhibit discourse ergativity, as does Sacapultec. This implies that the satisfaction of PAS constraints is not a sufficient condition for discourse ergativity. Even though *S* can be used for new referent introduction, the degree of ergative patterning in English is far weaker than would be the case in an ergative language. Thus the latent pressure to ergativity that Du Bois mentioned is quite weak in English. The PAS constraints and the degree of discourse ergativity may be independent of each other.

2.2.2 *On the floating character of* S

In his recent version of the PAS theory, Du Bois (2003a, b) made his explanation of discourse ergativity rather vague. Following discourse analyses of English by O'Dowd (1990) and Kärkkäinen (1996) in which they argued that discourse ergativity of the sort Du Bois describes was not detected,[3] Du Bois (2003a: 59, 64, 73, 78) weakened the notion of discourse ergativity, and argued that *S* can be "free," in that it can be like either *A* or *O*. Moreover, Du Bois does not set forth any constraints as to the behavior of *S* in his recent version of the theory.

This vagueness raises a further problem, however. Indeed, *S* does have a floating character. Since *S* can be agentive, it may behave like the prototypical *A*. However, *S* can also behave like *O* in that it can be non-agentive and accommodate new patient-like arguments.

It should be underscored that to describe this "floating character" of *S* by

as vague a notion as "free" may obscure some important language-particular properties. At least as far as the female narratives in Sacapultec (an ergative language) and English (an accusative language) are concerned, the discourse behavior of new referents is indeed consistent with the morphological case marking. The characterization of *S* in discourse should be more specific than is the case in Du Bois' description.

2.3 *Is male speech different?*

The above review indicates the necessity of refining Du Bois' theory. Furthermore, to understand what is actually going on in discourse, it is preferable to use more data. The present study intends to provide additional corroboration of the characterization of *S*, and give serious consideration to the notion of "free" as alluded to by Du Bois. This will contribute to the refinement of the PAS theory. Depending on the results of the analysis of the male speakers' narratives, *S* might better be characterized as constrained rather than "free."

This study attempts to provide tentative answers to two questions. 1) Are there any language-internal or male-female differences or similarities, as well as cross-linguistic differences or similarities in the same linguistic experience? 2) What implications will such an analysis have for the PAS theory? In addition, the study of actual referent distribution will provide a plausible and realistic view of male-female differences.

3. Methodology

3.1 *Data*

The data for the present study are spontaneous narratives uttered by native speakers of American English. The data were collected in the mid-1970s at the University of California, Berkeley, under the direction of Wallace Chafe. Subjects (UCB students) were shown a short film, and soon after were asked

to talk about what happened in the film. Since pears often appear in the film, the movie is called the *Pear Film.* This movie is accessible on the following website: http://pearstories.org/docu/ThePearStories.htm

I took up the matter of the *Pear Film* narratives recorded by male speakers. Although the female data were published in Chafe (1980), the male speakers' data have so far remained publicly unavailable; these were provided to me by courtesy of Wallace Chafe.[4]

3.2 *Discourse analysis*

Each clause of the transcribed data has been analyzed in terms of the referential status of the arguments and the manner of distribution between clause-core and non-clause-core positions. Only finite or tensed clauses were taken into consideration. The pragmatic property of referents has been gauged – i.e. new, accessible, and given – based on the transcription, the audio recording of the narrator and on visual information provided by the film. A referent was judged to be "new" when the person or thing was introduced into the discourse for the first time. When such referents appeared in subsequent clauses as pronouns or noun phrases with definite articles, they were classified as "given" referents. Some non-new referents that appeared for the first time but whose referential property is nevertheless situated between the new and given referent categories were classified as "accessible." Note also that only the head noun phrase was investigated for its pragmatic property (e.g. "a guy" in "a guy who's picking pears").

Consider the following fragment. In (1), new referents include "a guy who's picking pears," "a kid on a bicycle," and "these baskets that he has." The given referents are "those," "the two protagonists," "this," "the guy who is picking pears," "the pears," and "them." "The movie," a formally definite expression that nevertheless appeared in the initial utterance without any prior mention, belongs to the accessible referent category. Note that referentially vague noun

phrases (e.g. "a number of individuals") and expressions not referring to anything actually appearing in the film were excluded from the word count:

(1) Okay, [2.05 .. u--h [1.1]] the movie is basically about uh [.2] u--m [.85] a number of [.45] individuals. [.6] uh a guy who's picking pears, [2.1 [1.0] u--m [.6]] and a kid on a bicycle. Basically those are the two .. protagonists in this. [2.8 [1.05]] And .. um [.6]] the guy who is picking pears, [3.15 um [2.35] um [.35]] picks the pears and puts them in a [.45] in um [.4] these baskets that he has.

– Female Speaker 3, ll 1 – 5 from Chafe (1980: 304)

Six male speakers for whom audio data are available were chosen for the present analysis; they were compared with the five female speakers for whom comparable volumes of data are available.[5] The following tables present details concerning each speaker analyzed. In Tables 1 and 2 the speakers are classified and sequenced according to the number of words spoken, rather than their identity numbers:

Speaker's identity	Number of words spoken	Spoken clauses analyzed	Number of new referents	Information pressure quotient
M5	264	39	9	0.231
M7	287	40	14	0.350
M3	339	41	9	0.220
M4	384	41	13	0.317
M2	635	70	10	0.143
M1	639	86	15	0.174
Total	2,548	317	70	0.221 (mean)

Table 1. Six male speakers describing the *Pear Film* together with some details regarding the discourse word counts

Speaker's identity	Number of words spoken	Spoken clauses analyzed	Number of new referents	Information pressure quotient
F8	271	39	9	0.231
F16	276	39	6	0.154
F20	353	53	16	0.302
F3	379	48	14	0.292
F9	638	85	17	0.200
Total	1,917	264	62	0.235 (mean)

Table 2. Five female speakers describing the *Pear Film* together with some details regarding the discourse word counts

4. Results

4.1 *On the "one new argument constraint"*

Tables 3 and 4 show how many new referents appear in the spoken clauses. The clauses were classified according to transitivity:

	0 New		1 New		2 New		Total	
	n	%	n	%	n	%	n	%
Transitive	125	90.58	12	8.70	1	0.72	138	100.00
Intransitive	105	85.37	18	14.63	0	0.00	123	100.00
Equational	27	75.00	9	25.00	0	0.00	36	100.00
Total	257	86.53	39	13.13	1	0.34	297	100.00

Table 3. Transitivity and number of new arguments in clause-core positions, six male speakers

	0 New		1 New		2 New		Total	
	n	%	n	%	n	%	n	%
Transitive	120	87.59	16	11.68	1	0.73	137	100.00
Intransitive	84	92.31	7	7.69	0	0.00	91	100.00
Equational	24	66.67	12	33.33	0	0.00	36	100.00
Total	228	86.36	35	13.26	1	0.38	264	100.00

Table 4. Transitivity and number of new arguments in clause-core positions, five female speakers

It seems fairly clear that in both female and male narratives, most of the analyzed clauses include at most one new referent. In fact, a majority of tokens contain no new arguments at all. Furthermore, clauses containing more than one new argument are quite rare in both the male and female narratives. In this sense, Du Bois' one new argument constraint clearly holds as far as the clause-core positions (subject and object) are concerned.[6]

The above-mentioned tendency changes somewhat, however, if the oblique argument positions (e.g. prepositional phrases) are included. Below are the results of the male－female comparison:

	0 New		1 New		2 New		Total	
	n	%	n	%	n	%	n	%
Transitive	118	85.51	18	13.04	2	1.45	138	100.00
Intransitive	100	81.30	15	12.20	8	6.50	123	100.00
Equational	27	75.00	9	25.00	0	0.00	36	100.00
Total	245	82.49	42	14.14	10	3.37	297	100.00

Table 5. Transitivity and number of new arguments in clause including oblique NPs, six male speakers

	0 New		1 New		2 New		3 New		Total	
	n	%	n	%	n	%	n	%	n	%
Transitive	117	85.40	18	13.14	2	1.46	0	0.00	137	100.00
Intransitive	73	80.22	16	17.58	2	2.20	0	0.00	91	100.00
Equational	22	61.11	11	30.56	2	5.56	1	2.78	36	100.01
Total	212	80.30	45	17.05	6	2.27	1	0.38	264	100.00

Table 6. Transitivity and number of new arguments in clause including oblique NPs, five female speakers

In both the male and female narratives, the number of clauses containing multiple new arguments is seen to be increasing. Note also that the number of clauses containing one new argument is also increasing. This indicates that the clause-final oblique phrase position is indispensable for new referents that

cannot be accommodated in the clause-core positions. Yet, the cases of multiple new referents are rather rare.

Therefore, it can safely be said that the spoken clauses of the *Pear Film* narratives including clause-core and non-clause-core positions observe the one new argument constraint.

4.2 *On the "given A constraint"*[7]

As Tables 7 and 8 indicate, the given *A* constraint clearly holds irrespective of the difference between male and female speakers. For example, in both the male and female narratives, fewer than 1% of the transitive subjects are pragmatically new. The *A* position is almost always occupied by given referents. Also, about 85% of the referents in the argument positions are non-new in both male and female narratives.

There was no great difference between the male and female narratives in light of the pragmatic constraints of PAS. There is, however, one crucial difference in the manner of new referent distribution in the *S* and *O* categories. Note that *S* is more likely to contain new referents in male speech (Male: 15.93% vs. Female: 7.37%); in female speech, however, the post-verbal arguments (*O* and Oblique) are more likely to contain new referents.

	New		Accessible		Given		Total	
	n	%	n	%	n	%	n	%
A	1	0.95	1	0.95	103	98.10	105	100.00
S	18	15.93	1	0.88	94	83.19	113	100.00
O	22	18.33	4	3.33	94	78.33	120	100.00
Oblique	21	23.33	15	16.67	54	60.00	90	100.00
Others	8	36.36	2	9.09	12	54.55	22	100.00
Total	70	15.56	23	5.11	357	79.33	450	100.00

Table 7. Grammatical role and information status of referents, six male speakers

	New		Accessible		Given		Total	
	n	%	n	%	n	%	n	%
A	1	0.94	3	2.83	102	96.23	106	100.00
S	7	7.37	5	5.26	83	87.37	95	100.00
O	29	25.44	6	5.26	79	69.30	114	100.00
Oblique	18	29.51	11	18.03	32	52.46	61	100.00
Others	7	100.00	0	0.00	0	0.00	7	100.00
Total	62	16.19	25	6.53	296	77.28	383	100.00

Table 8. Grammatical role and information status of referents, five female speakers

4.3 *Distribution of new information in* S

In Table 9, the percentage of new referents in each grammatical category is calculated based on the total number of new arguments. The results show that the intransitive subjects and objects behave remarkably differently in the male and female data. Notice that no such differences can be found in the other grammatical categories (i.e. *A* and Oblique):

	Male		Female	
	n	%	n	%
A	1	1.43	1	1.61
S	18	25.71	7	11.29
O	22	31.43	29	46.77
Oblique	21	30.00	18	29.03
Others	8	11.43	7	11.29
Total	70	100.00	62	100.00

Table 9. Distribution of new referents among grammatical categories, female and male speakers compared

These results clearly indicate that there is a difference between the male and female speakers in terms of allocating new referents to the argument positions. Recall that the results reflect exactly the same linguistic experience.

5. Discussion

5.1 S－O *"neutralization" in male speech*

Table 9 shows that new information distribution is evened out between the *S* and *O* positions in male narratives. In fact, there is no great difference between *S*, *O*, and Oblique. However, in the female data, new referent distribution is clearly skewed toward *O* and Oblique.

In the male narratives, the property of *S* allowing it to accommodate new referents－its object-like property－is far more clearly displayed than in the female narratives. In this respect, a sort of neutralization is going on between *S* and *O* in the male data. If ergativity is defined as any similarity between *S* and *O*, then the male narratives are more ergative than are the female ones.

The next problem to consider is the extent of this difference. Is the degree of neutralization, or ergativity, in the male narratives so great and so different from that of the female narratives that the manner of new referent distribution between *S* and *O* is unconstrained, as Du Bois suggested? To argue this point, statistical analysis is required.

5.2 *Statistical analysis of male－female differences*

The manners of referent distribution are statistically significant in both the male and female narratives, as the following Chi-square tests show. Note, however, that the deviation of the observed from the expected values is smaller in the male speech:

	New	Non-new	Total
A	1	104	105
S	18	95	113
O	22	98	120
Total	41	297	338

$\chi^2 = 18.1704$, d.f. = 2, $p < 0.001$

Table 10. Referent distribution across grammatical categories, six male speakers (accessible referents included in non-new category[8])

	New	Non-new	Total
A	1	105	106
S	7	88	95
O	29	85	114
Total	37	278	315

$\chi^2 = 34.307$, d.f. = 2, $p < 0.001$

Table 11. Referent distribution across grammatical categories, five female speakers (accessible referents included in non-new category[9])

The following results indicate the manner of referent distribution when the non-clause-core referents are included. Again, the distribution is statistically significant both in the male and female narratives, and the degree of deviation from the expected values is far smaller in the male data:

	New	Non-new	Total
A	1	104	105
S	18	95	113
O	22	98	120
Obl	21	69	90
Other	8	14	22
Total	70	380	450

$\chi^2 = 29.1594$, d.f. = 4, $p < 0.001$

Table 12. Referent distribution across grammatical categories including non-clause-core arguments, six male speakers (accessible referents included in non-new category[10])

	New	Non-new	Total
A	1	105	106
S	7	88	95
O	29	85	114
Obl	18	43	61
Other	7	0	7
Total	62	321	383

$\chi^2 = 75.0127$, d.f. = 4, $p < 0.001$

Table 13. Referent distribution across grammatical categories including non-clause-core arguments, five female speakers (accessible referents included in non-new category[11])

5.3 *Residual analysis: gauging the floating character of* S

It is necessary to investigate the type of referent (new versus non-new) for which grammatical category (*A*, *S*, *O*, or Oblique) causes the statistically significant distribution.

Residual analysis (Haberman method) indicates that in male speech the manner of new referent management in *S* is better characterized as being more skewed toward ergative patterning than is the case in female speech, as discussed so far. In other words, *S* becomes closer to *O* than is *A*, unlike what happens in female speech. In Table 14, the new referents in *A* contribute negatively to the significant distribution in the male speech. There are significantly fewer new *A* referents than new referents belonging to other grammatical categories. On the other hand, the new *O* referents are significantly large in number. The new referents in the *S* category are statistically *not* significant, although the positive value (1.516) indicates that the distribution is skewed toward the *O* category:

	New	Non-New
A	−4.225▽	4.225▲
S	1.516 n.s.	−1.516n.s.
O	2.592 ▲	−2.592▽

▽: significantly low ▲: significantly high
$p < 0.1$ if |residual| > 1.65
$p < 0.05$ if |r| > 1.96
$p < 0.01$ if |r| > 2.58

Table 14. Residual analysis, six male speakers
(accessible referents included in non-new category)

Now compare the above results with those presented in Table 15, which are the results of a similar analysis of the five female narratives. These results contrast to those of the male narratives, in that the behavior of *S* is closer to that of *A*, although the manner of referent distribution in the *S* category is

statistically not significant. In the female speech, the new *A* referent is significantly small in light of the overall referent distribution. *O* is just the opposite of *A*. In the case of *S*, the negative value indicates that the category leans toward the *A* category (compare this with the results of the analysis of the male narratives presented in Table 14). These results show that *S* does indeed float, depending on the male－female difference in terms of the degree of new information management.[12]

	New	Non-new
A	－ 4.241 ▽	4.241 ▲
S	－ 1.586 n.s.	1.586 n.s.
O	5.684 ▲	－ 5.684 ▽

Table 15. Residual analysis, five female speakers
(accessible referents included in non-new category)

The similarity of *S* to *A* does not change when the non-clause-core categories are included in the analysis, as the following results (Table 16) indicate:

	New	Non-new
A	－4.715▽	4.715▲
S	0.127 n.s.	－0.127 n.s.
O	0.980 n.s.	－0.980 n.s.
Obl	2.276▲	－2.276▽
Other	2.761▲	－2.761▽

Table 16. Residual analysis (non-clause-core arguments included),
six male speakers (accessible referents included in non-new category)

In the male narratives, it is *A* and Oblique (and Other) that indicate the opposite directions in the referent distribution. Namely, *A* is significantly small in terms of the degree of new referent accommodation, while Oblique and Other are significantly large. Interestingly, *O* is not significant, the

behavior of *O* being closer to that of *S* in this respect.

On the other hand, the female speech displays a robustly accusative patterning, as the behavior of *S* and *O* clearly indicate (see Table 17):

	New	Non-new
A	−5.010▽	5.010▲
S	−2.691▽	2.691▲
O	3.200▲	−3.200▽
Obl	3.080▲	−3.080▽
Other	6.076▲	−6.076▽

Table 17. Residual analysis (non-clause-core arguments included), five female speakers (accessible referents included in non-new category)

6. Concluding Remarks

When we return to the point made in 2.2.2, namely, the specific "floating" character of *S*, the results of the present analysis lean towards Du Bois' recent idea that *S* is free rather than constrained. As far as the data analyzed are concerned, there seems to be a remarkable difference in English, depending on whether the speakers are male or female.

Why was the male narrative data found to be more "ergative" than was the female data? The present study cannot provide a substantial answer to this question. What is evident is the fact that such a difference arose based on the same narrative production processes.

This tentative result must be corroborated, however, with the remaining unanalyzed data pertaining to the other male speakers. More comprehensive study is needed before it can be concluded that there actually is a language-internal difference in the manner of new referent alignment. To make the comparison with the twenty female speakers possible, work is now in progress to analyze the data pertaining to the remaining male speakers.

Together with the comprehensive male−female comparison, further

examination of the Sacapultec data provided by Du Bois (1987) and of their statistical analysis is also necessary if we are to determine whether the manner of new referent distribution in the English male narratives is closer to that of the female narratives, or to that of the Sacapultec narrative discourse. This is a topic to be developed elsewhere.

7. Notes

1 I would like to thank Wallace Chafe for his help and advice: without his generosity, this study would not have been possible in its present form. This study was supported in part by the Grant-in-Aid for Scientific Research (Grant-in-Aid for Young Researchers, B, KAKENHI: 14710343) from the Japanese Ministry of Education, Culture, Sports, Science and Technology.

2 Du Bois' theory also covers the constraints on lexical versus pronominal coding of the discourse referents (his "non-lexical *A* constraint" and "one lexical argument constraint"). This means that spoken clauses tend to have at most one lexical noun phrase per clause, and that such an argument is hardly likely to appear in the *A* position.

These grammatical constraints should not, however, be identified with the pragmatic constraints (the "given *A* constraint" and "one new argument constraint"). While a new referent is always coded lexically, the reverse does not always hold, since the given (non-new) referents can be coded lexically as well as pronominally, in which case the non-new lexical nouns accompany a definite article. Therefore, being lexical does not necessarily mean being new. On the other hand, pronominal coding *always* reflects the referent's pragmatic property as given.

In the present article, I focus on the pragmatic constraints and only touch upon the grammatical (lexical or pronominal coding) constraints when necessary.

3 Their studies are, however, based on data not directly comparable to that of the *Pear Film* narratives.

4 The male data encompass twenty speakers. Unfortunately, most of the audio files are currently unavailable: the transcriptions of the narratives now only remain for thirteen speakers. Furthermore, two of these twenty speakers are bilingual, which excludes their data from the discourse analysis. What have been presented in this article are the narrative data pertaining to six male speakers whose audio data are available.

5 Although I actually analyzed the discourse of seven male speakers, one of them (Male 6: 801 words, 100 analyzed clauses) was excluded from the present discussion because no female speaker's data matched it (or was close enough for direct comparison) in terms of the

number of words spoken. Five rather than six female speakers were chosen because the number of words in both the M1 and M2 data were so close to that of F9, and because there were no other comparable female data. The results of the analysis for all twenty female speakers are available in Kumagai (2004a, b).

6 The one lexical argument constraint also applies in male and female narratives, as Tables A and B indicate. Notice that the analyzed clauses contain at most one lexical noun phrase inside the clause:

	0 Lex		1 Lex		2 Lex		Total	
	n	%	n	%	n	%	n	%
Transitive	58	42.03	69	50.00	11	7.97	138	100.00
Intransitive	77	62.60	46	37.40	0	0.00	123	100.00
Equational	23	63.89	12	33.33	1	2.78	36	100.00
Total	158	53.20	127	42.76	12	4.04	297	100.00

Table A. Transitivity and number of lexical arguments in clause-core positions, six male speakers

	0 Lex		1 Lex		2 Lex		3 Lex		Total	
	n	%	n	%	n	%	n	%	n	%
Transitive	68	49.64	52	37.96	14	10.22	3	2.19	137	100.00
Intransitive	39	42.86	41	45.05	10	10.99	1	1.10	91	100.00
Equational	12	33.33	16	44.44	8	22.22	0	0.00	36	100.00
Total	119	45.08	109	41.29	32	12.12	4	1.52	264	100.00

Table B. Transitivity and number of lexical arguments in clause-core positions, five female speakers

7 Tables C and D indicate the manner of lexical versus pronominal coding of arguments. As mentioned in note 2, the lexical coding does not mean that the referent's status is new. The two tables indicate that the male narratives contain more lexical coding than do the female narratives:

	Lexical		Pronominal		Total	
	n	%	n	%	n	%
A	22	20.95	83	79.05	105	100.00
S	46	40.71	67	59.29	113	100.00
O	83	69.17	37	30.83	120	100.00
Oblique	80	88.89	10	11.11	90	100.00
Others	22	100.00	0	0.00	22	100.00
Total	253	56.22	197	43.78	450	100.00

Table C. Grammatical role and morphological type of referential NPs and pronouns, six male speakers

	Lexical		Pronominal		Total	
	n	%	n	%	n	%
A	14	13.21	92	86.79	106	100.00
S	41	43.16	54	56.84	95	100.00
O	81	71.05	33	28.95	114	100.00
Oblique	56	91.80	5	8.20	61	100.00
Others	7	100.00	0	0.00	7	100.00
Total	199	51.96	184	48.04	383	100.00

Table D. Grammatical role and morphological type of referential NPs and pronouns, five female speakers

8 $\chi^2 = 18.5844$, $p < 0.001$ if accessible referents are excluded

9 $\chi^2 = 35.1813$, $p < 0.001$ if accessible referents are excluded

10 $\chi^2 = 35.66$, $p < 0.001$ if accessible referents are excluded

11 $\chi^2 = 77.4051$, $p < 0.001$ if accessible referents are excluded

12 In the comprehensive analysis of the twenty female speakers developed in Kumagai (2004a, b), the *S* and *A* categories are significantly small in terms of new versus non-new referent distribution. The female narratives were, therefore, judged as being strongly accusative, in the sense that *S* and *A* are close to each other to the exclusion of *O*. The present analysis, which is based on data pertaining to the five speakers selected from the above-mentioned twenty speakers, provides slightly different (but not contradictory) results.

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