

The Distribution Environment of the Connective

“However” and the Principle of Its Position

— Based on the LOB Corpus —

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0. Introduction

While no syntactic explanation has been given for the position of the connective “however,” Sugiura (1989, a, b) has tried to provide an explanation by suggesting a principle of the position from a functional perspective. The purpose of this paper is to examine the validity of this principle through the investigation of the positions of the connective “however” found in the Lancaster/Oslo-Bergen corpus (the LOB corpus).¹

In this paper, after a short review of the principle in the first section, an investigation of the distribution environment of the connective “however” found in the LOB corpus will be discussed in the second section. Finally, a range of cases which the principle covers will be verified based on the results of the investigation.

1. The Position of the Connective “However”

The connective “however” is usually placed in the initial, medial, or final position as in the sentences that follow:

- (1) a. However, he was unable to go to sleep.
- b. He, however, was unable to go to sleep.
- c. He was, however, unable to go to sleep.
- d. He was unable to go to sleep, however.

Syntactically, all placements listed in (1) are acceptable. However, once put into the context, not all placements are equally acceptable. Observe the following examples:²

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- (2) He had travelled many miles and was weary last night.
- a. However, he was unable to go to sleep.
 - b. *He, however, was unable to go to sleep.
 - c. He was, however, unable to go to sleep.
 - d. He was unable to go to sleep, however.
- (3) She had a sound sleep last night.
- a. However, he was unable to go to sleep.
 - b. He, however, was unable to go to sleep.
 - c. ? He was, however, unable to go to sleep.
 - d. He was unable to go to sleep, however.

Sugiura (1989, a, b) has tried to explain the discourse factor which controls the restriction of the position of the connective “however” from a functional perspective. This research concluded in the following hypothetical principle:

(4) **The Principle of the Position of the Connective “However”**

Put “however” so as to make the NEW information stand out.³

Sugiura (1989, b : 164)

This principle explains the awkwardness of (2, b). In this case, the subject of the second sentence, “He, ” is not the NEW information; therefore it should not be emphasized. However, putting the connective “however” into the sentence right after the subject “He” makes the subject stand out, and the subject comes to be regarded as the NEW information. This contradiction makes the example awkward. In the case of (3, c), the subject “He” should be the NEW information, since it is contrasted with “She” in the first sentence. However, the interpolation of the connective in the case of (3, c) makes “He was” an information unit, where the latter element, “was, ” is regarded as the NEW information. This is the reason (3, c) turns out to be questionable. Thus, the principle of the position of the connective “however” successfully explains these two examples in which the connective occurs in the middle of the sentence.⁴

In Sugiura (1989, a), the case where the connective occurs after the operator (or auxiliary) and before the main verb has been discussed and explained as well.⁵ The examples are as follows:

- (5) David hasn't any money of his own.
 - a. *He, however, can ask his parents for some.
 - b. He can, however, ask his parents for some.
- (6) She has failed.
 - a. *She, However, has tried her best.
 - b. She has, however, tried her best.
- (7) He gets weary every day.
 - a. *He, however, does go to bed late.
 - b. He does, however, go to bed late.

The connective "however" sometimes comes after the verb element in the sentence. This case can be also explained by the principle. Observe the following sentences, where the complement in the second sentence "blue" is the NEW information in contrast with "pink" in the first sentence:

- (8) I have a pink desk, a pink bed, and a pink couch.
 - a. ? I, however, am painting my living room blue.
 - b. ? I am, however, painting my living room blue.
 - c. I am painting my living room, however, blue.

Sugiura (1989, b : 163)

In Sugiura (1989, b), the case concerning adverbials is also analyzed based on the principle. Some sentences have an adverbial at the front. The adverbial is shifted in the clause as the marked theme, which is regarded as the NEW information. The following examples illustrate this case :

- (9) He thought of a new plan.
 - a. Later, however, he decided to give it up.
 - b. ? Later he, however, decided to give it up.

Sugiura (1989, b : 161)

As we have seen above, the connective "however" can occur in the initial, medial, or the final position in the sentence syntactically. Among these, Sugiura (1989, a, b) addresses the second case where the connective "however" comes in the medial position. The position of the connective and the cases which have been explained by the

principle proposed by Sugiura (1989, b) can be summarized in the following way :

(10)	Position	Case	Example
	1. Initial		
	2. Medial	1. after Subject	(3, b)
		2. after the Verb "be"	(2, c)
		3. after the operator	(5) - (7)
		4. after the Verb element and before the marked rheme	(8, c)
		5. after the front-shifted adverbial	(9, a)
	3. Final		

So far, the principle proposed by Sugiura (1989, b) successfully explains the occurrence of the connective "however" in the medial position. However, the initial and the final cases have not been analyzed. Furthermore, the five medial position cases presented above are by no means exhaustive of all medial position placements. In order to make it clear where the connective "however" really occurs in the sentence and how often it appears in a certain position, a thorough investigation has been done with the LOB Corpus as the resource of the primary data. The investigation will be discussed in the next section.

2. The Investigation of the Distribution Environment Based on the LOB Corpus

The Lancaster-Oslo/Bergen Corpus is a collection of various texts in British English, compiled in 1978 by University of Lancaster, University of Oslo and Norwegian Computing Center for the Humanities. It contains about a million words.

In this research, the primary data were retrieved by Sugiura on a personal computer.⁶ It was relatively easy to get all of the 493 instances of the sentences which include the connective "however" out of the corpus.⁷ The LOB also has a tagged version.⁸ However, the tags are on the wordclass level, like parts of speech, and it turned out to be useless to analyze the distribution of the connective "however" on only the level of wordclass. This is because the connective "however" is not a clause element which is integrated into the clause structure syntactically but rather a connective device which usually occurs between the two clause elements. This makes it crucial

to analyze the position of the connective on the level of clause elements not on that of the wordclasses. However, the connective "however" sometimes occurs within a clause element, which makes the analysis more complicated. Therefore, an original investigation has been necessary for the analysis of the environment of the distribution of the connective "however."

2.1 The Units and Their Symbols for the Analysis

The five clause elements based on Quirk et al. (1985) have been adopted for the investigation. They are abbreviated as follows :

- (11) S : Subject
- V : Verb
- C : Complement
- O : Object
- A : Adverbial

Among the combinations of these clause elements, Quirk et al. (1985) proposes the following seven clause types :

- (12) SV
- SVO
- SVC
- SVA
- SVOO
- SVOC
- SVOA

Besides these seven clause types, the following special clause constructions in English have also been considered :

- (13) It ... to-infinitive
- It ... that-clause
- There-clause (existential)

Sometimes clauses are combined into a compound sentence or a complex one, and

the connective “however” can come between the two clauses in the compound sentence or in the complex one. Therefore, this taken into consideration, compound and complex sentences are represented in the following way using the symbols, “S1” and “S2,” :

(14) Compound Sentence

S1H and S2: These services develop at their own pace in response to local demand, however, and little can be done to stimulate them.

(LOB, H 07 113)

Complex Sentence

whenS2 S1: When Lytton received the telegram, however, he was in no mood to delay. (LOB, J 59 62)

In some cases, the connective “however” can be found within a clause element. In such cases, analysis has been done within the clause element. For example:

- (15) The finance company, however, whose business is dealing in shares and other property and is thus taxed on capital gains, can offset the *+100,000 loss in buying and reselling the business against the dividend received.

(LOB : A 25 111)

Therefore, this sentence is noted in the following way :

- (16) S (NPHR) op VO

S : Subject element

NP : Noun Phrase

H : However

R : Relative clause

op : operator

V : Verb

O : Object element

Here, “S (NPHR)” stands for the Subject element which consists of a noun phrase, the connective “however,” and a relative clause.

As you can see in the example (16), the verb element consists of the symbols “op” and “V.” The connective “however” can be placed in more than one position within

the verb element which consists of more than one word. Therefore, the verb element should be further analyzed in the investigation of the environment of the distribution of the connective. The following symbols have been used for this purpose :

- (17) **op** : operator (auxiliaries)
B : the verb "be" (copula)
V : general verb

As we have seen in (12) above, some adverbials are integrated into the clause structure as a clause element, but not all. Therefore in this research two kinds of adverbials are distinguished as follows :

- (18) **A** : adverbials which are integrated into clause structure as a clause element.
e. g.) "SVA" or "SVOA."
a : adverbials which are not regarded as a clause element.

The summary table of the units and their symbols are as follows :

(19) **The Units and Their Symbols**

S	Subject
V	Verb
C	Complement
O	Object
A	Adverbial (as a clause element)
it	"it" in "it...to-infinitive" construction
to	"to-infinitive" in "it...to-infinitive" construction
there	"there" in "there-existential" construction
B	"Be" verb (copula)
op	operator
a	adverbial (not as a clause element)
(NP)	Noun Phrase within a clause element
(VP)	Verb Phrase within a clause element
(PP)	Prepositional Phrase within a clause element
(R)	Relative clause within a clause element
not	"not" within a verb element

S 1	the first clause in a complex or compound sentence
S 2	the second clause in a complex or compound sentence
J	conjunction
do	operator “do” for the emphasis
W	WH-question word
!	inversion
conjunctions	and, but, or, for, that, when, where, why, who, etc.

2.2 The Distribution Environment Analysis

The analysis of the distribution environment of the connective “however” has been done according to the following procedure :

- (20) 1. Retrieve the connective “however” in the LOB corpus and make the primary data list.
2. Divide the instances into four categories based on the positions : Initial, Medial, Final, and the Others.⁹
3. Analyze the environment of each connective based on the units we have discussed above and describe the environment using the symbols.
4. Sort the results.
5. Omitting the less relevant element(s), and group similar patterns together.
6. Repeat step 5 until the general tendency can be obtained.

Example (LOB, E 38 : 183)

“Once every five years, however, the Institute issues a report.”

➡ aHSVO

➡ aHSV

➡ aHS

The total number of the retrieved instances is 493, most of which are analyzed on the four levels in the investigation. Some examples from this investigation are as follows :

(21) Some Examples of the Investigation

INDEX		Level 1	→	Level 2	→	Level 3	→	Level 4
INITIAL POSITION								
H 06	11	HSVA		HSV		HSV		HS
A 08	56	HSVO		HSV		HSV		HS
J 61	75	HSVthatS2		HSV		HSV		HS
J 24	149	HSaVA		HSV		HSV		HS
G 65	107	HSaVC		HSV		HSV		HS
E 10	146	HSaVO		HSV		HSV		HS
G 45	120	HSopV		HSopV		HSV		HS
J 01	182	HSopVO		HSopV		HSV		HS
F 28	4	HSopVa		HSopV		HSV		HS
J 03	65	HitBCthatS2		HitV		HSV		HS
J 31	102	HaSopaVO		HaSV		HaS		HaS
J 74	19	HaitBCtov		HaitV		HaS		HaS
MEDIAL POSITION								
K 18	31	SVOHandS2		S1HandS2		S1HJS2		1H2
E 01	21	itBnotCHbeforeS2		S1HbeforeS2		S1HFS2		1H2
L 24	99	aHitopVthatS2		aHitopV		aHS		aHS
J 45	90	aHitBCtov		aHitV		aHS		aHS
L 22	14	aHSaVA		aHSaV		aHS		aHS
A 08	11	aHSaVC		aHSaV		aHS		aHS
E 13	23	aHSaVO		aHSaV		aHS		aHS
A 08	211	aHSBC		aHSV		aHS		aHS
G 21	137	aHSVA		aHSV		aHS		aHS
B 15	47	aHSVC		aHSV		aHS		aHS
L 24	56	aHSVO		aHSV		aHS		aHS
D 05	10	aHSaopV		aHSaopV		aHSopV		aHS
H 10	56	aHSaopVA		aHSaopV		aHSopV		aHS
B 17	93	aHSaopVa		aHSaopV		aHSopV		aHS
G 41	70	aHSopVC		aHSopV		aHSopV		aHS
L 22	5	aHSopVO		aHSopV		aHSopV		aHS
D 10	66	aHSopVthatS2		aHSopVthat		aHSopV		aHS
J 12	195	aSopHaVa		aSopHaV		aSopHV		aSopH
J 06	203	aSopHV		aSopHV		aSopHV		aSopH
J 20	221	beforeS2HS1		beforeS2HS1		JS2HS1		J2H1
J 05	89	onceS2HS1		onceS2HS1		JS2HS1		J2H1
J 59	61	whenS2HS1		whenS2HS1		JS2HS1		J2H1
B 10	214	ifHS2S1		ifHS2S1		JHS2S1		JH21
G 77	45	whenHS2S1		wherhHS2S1		JHS2S1		JH21
B 10	11	whereHS2S1		whereHS2S1		JHS2S1		JH21

F 26	58	SHaBC	SHaV	SHaV	SH
G 03	109	SHaVA	SHaV	SHaV	SH
H 03	147	SHopaVa	SHopaV	SHopV	SH
G 52	84	SHopnotaVA	SHopaV	SHopV	SH
G 77	163	SHopV	SHopV	SHopV	SH
G 44	186	SHopVA	SHopV	SHopV	SH
K 23	160	SHV	SHV	SHV	SH
J 50	112	SHVA	SHV	SHV	SH
G 77	116	SHVCa	SHV	SHV	SH
F 10	166	SHVO	SHV	SHV	SH
G 67	84	SHVOA	SHV	SHV	SH
G 55	145	SHVOC	SHV	SHV	SH
A 15	170	itopHVthatS2	itopHVthat	SopHV	SopH
J 44	61	SopHaV	SopHaV	SopHV	SopH
F 37	66	SopHaVA	SopHaV	SopHV	SopH
L 24	13	SdoHVA	SopHV	SopHV	SopH
R 03	2	SdoHVOO	SopHV	SopHV	SopH
G 18	135	SopHVA	SopHV	SopHV	SopH
J 15	26	SopHVCA	SopHV	SopHV	SopH
H 05	2	SopHVCa	SopHV	SopHV	SopHV
J 25	170	SopHVO	SopHV	SopHV	SopHV
L 24	140	itVCHthatS2	itVCHthat	SVCH	SV*H
J 64	119	itBaCHwhyS2	itVCHwhy	SVCH	SV*H
J 57	74	SBCHA	SVCH	SVCH	SV*H
J 24	39	itopVHthatS2	itopVHthat	SopVH	SVH
F 01	110	SopVHA	SopVH	SopVH	SVH
H 08	31	itBHctov	itVHCto	SVH	SVH
E 02	157	itBCHthatS2	itVHthat	SVH	SVH
A 15	153	itVHthatS2	itVHthat	SVH	SVH
F 27	41	SVHA	SVH	SVH	SVH
J 75	129	SVHO	SVH	SVH	SVH
L 05	177	SBHC	SVHC	SVH	SVH
P 28	63	SBHCa	SVHC	SVH	SVH
E 06	134	SBHthatS2	SVHthat	SVH	SVH
A 08	192	thereBHS	thereVH	SVH	SVH

FINAL POSITION

G 56	100	SaVH	SaVH	SaVH	S*VH
N 15	69	SopVCAaH	SVCAaH	SV*AH	SV*H
J 55	175	SVAH	SVAH	SV*H	SV*H
C 13	130	SBCH	SVCH	SV*H	SV*H
L 20	35	SopnotVCH	SVCH	SV*H	SV*H

OTHERS

A 25	176	thereopaBS (NPHofNP)	(NPHofNP)	() ¹⁰
J 64	15	S (NPHPP) BC	(NPHPP)	()
G 43	130	S (NPHR) BC	(NPHR)	()
A 25	111	S (NPHR) opVO	(NPHR)	()
B 17	104	thereopBS (NPHthatS2)	(NPHthatS2)	()

2.3 The Summary of the Analysis

The result of the analysis on the highest level for each category is summarized in the following table :

(22) The Summary Table of the Analysis

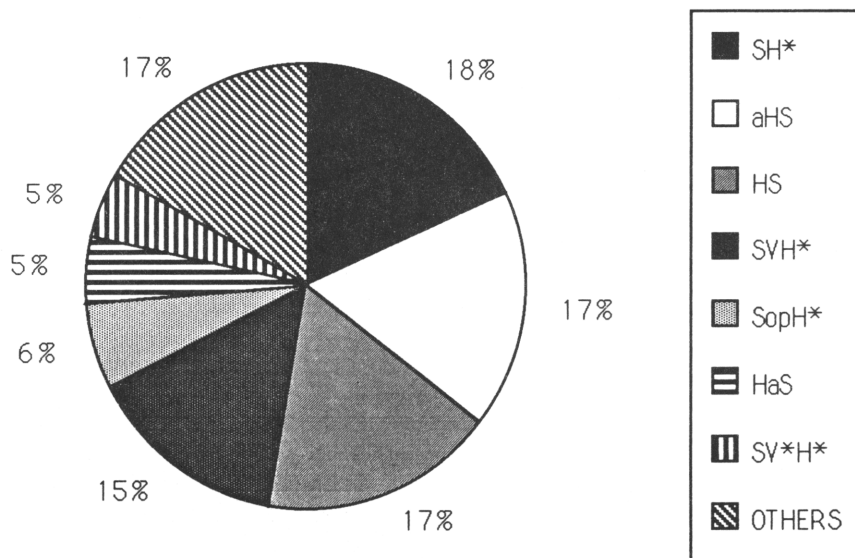
<u>INITIAL POSITION</u>	number of instances
HS	85
HaS	24
SUBTOTAL	109
<u>MEDIAL POSITION</u>	
SH	90
aHS	86
SVH	72
SopH	31
SV*H	23
JH21	13
!	8
J2H1	7
1H2	6
opSH ?	2
VH	2
aSopH	2
WHVS?	1
aSVH	1
JHS	1
S*H	1
S*VH	1
SUBTOTAL	347
<u>FINAL POSITION</u>	
SV*H	7
S*VH	1
SUBTOTAL	8
<u>OTHERS</u>	
()	23
?	6
SUBTOTAL	29
TOTAL	493

The following table is the summary of the frequency analysis of the distribution environment of the connective “however.”

(23) The Frequency Analysis of the Distribution Environment¹¹

POSITION	ENVIRONMENT		%
MEDIAL	SH*	90	18.3
MEDIAL	aHS	86	17.4
INITIAL	HS	85	17.2
MEDIAL	SVH*	72	14.6
MEDIAL	SopH*	31	6.3
INITIAL	HaS	24	4.9
MEDIAL	SV*H*	23	4.7
MEDIAL	JH21	13	2.6
MEDIAL	!	8	1.6
FINAL	SV*H	7	1.4
MEDIAL	J2H1	7	1.4
MEDIAL	1H2	6	1.2
MEDIAL	opSH*?	2	0.4
MEDIAL	*VH*	2	0.4
MEDIAL	aSopH*	2	0.4
FINAL	S*VH	1	0.2
MEDIAL	WHYS?	1	0.2
MEDIAL	aSVH*	1	0.2
MEDIAL	JHS	1	0.2
MEDIAL	S*H*	1	0.2
MEDIAL	S*VH*	1	0.2
OTHERS	()	23	4.7
OTHERS	?	6	1.2

(24) **The Summary Chart of the Frequency Analysis¹²**



As a result, four major types and three minor types of the distribution environment have been discovered through the analysis :

(25) **Four Major Types of the Distribution Environment**

- Type A :** SH* : Medial position, after the subject
Type B : aHS : Medial position, after the sentence-initial adverbial and before the subject
Type C : HS : Initial position, before the subject
Type D : SVH* : Medial position, after the verb

Three Minor Types of the Distribution Environment

- Type E :** SopH* : Medial position, after the operator
Type F : HaS : Initial position, before the sentence-initial adverbial
Type G : SV*H* : Medial position, between the two clause elements in the predicate

3. Conclusion

In the first section, we have discussed the principle of the position of the connective “however” proposed by Sugiura (1989, b) and its application to some cases where the connective occurs in the medial position. These cases can be described with the symbols used in the investigation of the distribution environment of the connective “however” as follows :¹³

(26) The cases discussed in Sugiura (1989, a, b)

	Symbols	Type
1. after subject	SH*	A
2. after the verb “be”	SVH*	D
3. after the operator	SopH*	E
4. after the verb element and before the marked rheme	SV*H*	G
5. after the front-shifted adverbial	aHS	B

The types which are not found in (26) are Type C and Type F, both of which are the cases of the initial position : “HS” and “HaS.” In other words, every medial position case found as the result of the investigation in the previous section has turned out to have been discussed in Sugiura (1989, a, b). Of course, in the investigation above, we have observed that there are several instances which have not been mentioned in Sugiura (1989, a, b), but the ratio of these instances is no more than 3%. This means that the principle of the position of the connective “however” suggested by Sugiura (1989, b) covers the majority of the medial cases.

The above results seem to support the validity of the principle of the position of the connective “however.” However, another problem has been found ; namely, that Type F cannot be explained by the principle, yet this type accounts for only 5% of all samples surveyed. This is the case in which the connective “however” occurs at the initial position before the front-shifted adverbial. According to the study of Sugiura (1989, a, b), the front-shifted adverbial is supposed to be regarded as the NEW information, and the principle says that the NEW information should be emphasized. Observe the following example :

(27) Later he decided to give it up.

In this example, the connective "however" should come between the front-shifted adverbial and the subject as follows :

(28) Later, however, he decided to give it up.

Type F, on the contrary, can be illustrated in the following way using the same example:

(29) However, later he decided to give it up.

This case seems to be the counter example to the principle, but as we have discussed above, the principle can explain the majority of the medial cases. Therefore, it seems to be more reasonable to assume that the placement of "however" in Type F is affected by another discourse factor.

In future analysis of the position of the connective "however," the potential discourse factor which produces Type F should be investigated as well as the case where the connective "however" comes in the initial position before the subject ; namely, Type C, which is one of the four major types.

The primary data retrieved out of the LOB corpus has been stored on a personal computer as the database for further analysis. This database will make future research in this area relatively easy. Such research might include the occurrence of "however" in "it ... to-infinitive" construction, in "there-existential" construction, as well as in cases where the subject is a pronoun. Varying the criteria in sorting on the computer can make it easy to specify the discourse factors and the relationship between them and the construction of the sentences. The method of investigation used in this research seems promising for future studies of the position of the connective "however" in particular, and for the study of language in general.¹⁴

NOTES

1 The LOB corpus is available from :

International Computer Archive of Modern English,
The Norwegian Computing Centre for the Humanities,
P. O. Box 53,
N-5014 Bergen-University,
Norway

The corpus used in this paper is also obtained from this source.

2 In this paper, an asterisk, "*", and a question mark, "?," found in the examples at the head of the sentence stands for the unacceptability and the questionability of the sentence

respectively.

3 In other words, "Placement of 'however' is used to emphasize the NEW information."

4 For the details, see Sugiura (1989, a, b)

5 The term "operator" is in most cases identical to "auxiliary." See Quirk et al. (1985:79 ff).

6 The personal computer system which is used in this investigation is as follows :

CPU : Epson, PC-286 VE (NEC PC-9801 compatible)

with the internal hard disk drive .

Software : Retrieval, "JGREP," © Kume, K. and Fujikawa, J.

Database, "Ninja 3Pro," "© Something Good.

Spread Sheet, "VP-planner," © CREO.

Text Editor, "Vz Editor," © c. mos.

7 An examele of the retrieved data is as follows :

D 05 168 `But we must revise only in the full awareness of what this Book has

D 05 169 meant. `First of all, however, we look at its immediate background.

D 05 170 `Before Christmas 1660 five editions of the 1604 Book had been

"D 05 168" is the index in the LOB corpus. This means that this text is found in Category D, Text 05, Line 168.

8 The following tagged example is the counterpart of the untagged one above :

D 05 168 `but _CC we _PP 1AS must _MD revise _VB only _RB in _IN the _ATI full _JJ

D 05 168 awareness _NN of _IN what _WDT this _DT Book _NN has _HVZ

D 05 169 meant _VBN, _ , `first _RB of _IN all _ABN, _ , however _RB, _ , we _PP1AS

D 05 169 look _VB at _IN its _PP\$ immediate _JJ background _NN. _ .

D 05 170 `before _IN Christmas _NP 1660 _CD five _CD editions _NNS of _IN the _ATI

D 05 170 1604 _CD Book _NN had _HVD been _BEN

The explanation of the tags is found, for example, in Garside, Leech, and Sampson (1987).

9 "The others" include the case where the connective "however" occurs within a clause element, not between the two clause elements and the case where the sentence in which the connective occurs is an irregular sentence.

10 Here, parentheses are used as the symbol of the cases where the connective occurs within a clause element in general.

11 On this table and below, the symbols of the medial cases carries the asterisk "*" at the end in order to distinguish these from the final cases. The asterisk "*" stands for any element in the sentence ; namely, "wild card."

12 In this chart, the category called "OTHERS" includes those cases whose ratio is less than 3% as well.

13 The symbols used here are those on the highest level.

14 Stenstrom, A. (1987) has taken similar approach in the study of the function of the discourse word "really."

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