

common grammatical patterns in the language may in fact be restricted syntagmatically, as was exemplified by the total absence of 'there is/are' in the company of at least 30% of the nouns in the small sample examined here.

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ENDNOTES

¹'Rank', in systemic grammar, refers to the hierarchical scale on which grammatical units are ranged. A unit at any rank on the scale consists of one or more units at the rank immediately below. Thus "a sentence consists of clauses, which consist of groups (or phrases), which consist of words, which consist of morphemes" (Halliday 1985: 25). A unit is said to be *rank-shifted* when its formal realisation is shifted to a lower rank: a group, phrase or clause comes to function as part of, or in place of (i.e. as the whole of) a nominal group (ibid:187). Thus in the nominal group "a great impact on future education needs" (Example 3 above) the prepositional phrase "on future education needs" has been rankshifted to the function of word, i.e. it functions as part of the nominal group. In the nominal group "a strong tendency to connect them with Satan" (Example 4 above) it is the clause "to connect them with Satan" which has been rankshifted to function as part of the nominal group.

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An analysis of sentences with nonreferential *there* in spoken American English*

Abstract. This study investigates topic continuity of the logical subject and the post-subject element of sentences with non-referential (NR) *there* in spoken American English. Three types of speech were analyzed: informal conversation, radio show call-ins, and narration. Sentence-level analyses were also conducted to compare the results with those of previous studies. Modified versions of referential distance (RD) and decay developed by Givón (1983a, 1984) were used to quantify the topic continuity and topic maintenance of the logical subjects and the post-subject elements. The results indicated that the logical subjects of NR *there* sentences tended to introduce a sub-topic of a broader discourse topic as relatively new information whereas the post-subject elements tended to contain a referent of relatively high continuity, linking the sub-topic introduced as the logical subject of the sentences to the preceding part of the discourse. Although the NR *there* sentences in the three types of speech shared general trends, they displayed some qualitative difference in their roles in the discourse.

1. Introduction. The target structure of this study is exemplified in the following sentences:

(1a) There is a big orange tree in front of my house.

(1b) There are so many problems to solve.

These sentences consist of the grammatical subject *there*, *be* or certain other verbs, optional premodifiers of the logical subject, the logical subject, and optional post-subject elements. The structure is illustrated as follows:

there	+	{	be + (premodifier)	+	logical subject	+	post-subject element
			or other verb				
		{					adverbial locative
							relative clause
							to-infinitive
							participle etc.

The grammatical subject "there" is a pronoun, and is always unstressed. It functions differently from the adverbial *there* as in (2).

- (2) I used to go *there* very often.

The pronoun *there* in sentences such as (1) is called a "nonreferential (NR) *there*" in the present study (see Celce-Murcia & Larsen-Freeman, 1983: 183). The structure with an NR *there* has traditionally been called an "existential construction" because it prototypically implies that something exists somewhere as in (1). However, because some of these constructions "do not lend themselves to paraphrases with 'exist'" (Huddleston, 1988), the more neutral term, "sentences with NR *there*" was chosen.

NR *there* has been referred to as a semantically empty "expletive" in formal linguistics (e.g., van Riemsdijk & Williams, 1986), meaning that the pronoun "there" does not semantically refer, and does not have the capacity of receiving a thematic role (θ -role) from the matrix verb. According to Li & Thompson (1976), such a pronoun can only be found in a highly grammaticalized subject-predicate language such as French or English. Because these languages always need a grammatical subject, the pronoun *there* is used as a "filler" for the subject position when the position is empty. In a language with highly topic-comment orientation (e.g., Japanese), such an empty "filler" does not exist, and the word order is reversed in an unmarked construction in order to convey a similar meaning (see Kuno, 1971). Note the following:

- (3) WATASHINO UCHI NO MAE NI WA OOKINA ORENJI NO KI
 my house in front of topic big orange tree
 GA ARU
 subject exist

"There is a big orange tree in front of my house."

In contrast, in English, a sentence such as (4a) without *there* is regarded as marked whereas one such as (4b) with *there* is considered to be unmarked (cf., Quirk, Greenbaum, Leech & Svartvik, 1972; Breivik, 1981).

- (4a) In front of my house is a big orange tree.

- (4b) There is a big orange tree in front of my house.

Thus, English sentences with NR *there* represent an interesting feature typologically specific to subject-predicate languages.

Many researchers to date have examined the functions of English sentences with NR *there*. For example, Bolinger (1977) noted that there is a functional difference between a pair such as (4a) and (4b). His examples follow:

- (5a) Across the street is a grocery.

- (5b) Across the street there's a grocery. (p. 93)

Bolinger maintains that (5a) presents the existence of the grocery store *directly* to the listener whereas (5b) presents the *knowledge* of its existence. This functional difference can explain the unacceptability of (6a) and the acceptability of (6b):

- (6a) * As I recall, across the street is a grocery store.

- (6b) As I recall, across the street there's a grocery store. (p. 94)

(6a) is unacceptable because, entailed by the speaker's recollection, the existence of the grocery store is not supposed to be presented so directly (or without any expectation) to the listener. Bolinger's argument attacks the conventionally believed equivalence between a pair such as (5a) and (5b). He contends that (5b) is not just a construction derived from (5a) with *there* inserted, but has a distinctive function of "bringing something into awareness" (p. 93).

Celce-Murcia & Larsen-Freeman (1983) noticed the same phenomenon. Admitting Bolinger's claim, they added that sentences such as (5a) are more likely to occur as a "piece of visual information" (p. 286) in a *written* narrative while sentences such as (5b) are more likely to occur in "speech or reported speech" (p. 286). In addition, they pointed out another discourse function of the NR *there*. This function is supported by the fact that some sentences with an NR *there* have no counterpart without *there*:

- (7a) There's another possibility that we haven't mentioned.

- (7b) *Another possibility is that we haven't mentioned. (p. 286)

The noun phrase (NP) "another possibility" is an indefinite element implying new information. If a sentence adheres to the general dis-

course rule, new information follows old information and appears later in a sentence. (7b) is in part unacceptable because it violates this discourse rule. Celce-Murcia and Larsen-Freeman maintain that the NR *there* can make such unacceptable sentence as (7b) acceptable by "postponing the introduction of the new information until sentence-final position" (p. 286).

Another important observation was made by Rando & Napoli (1978), who proposed that sentences with NR *there* can be divided into only two types: EXISTENTIAL as in (8a) and LIST as in (8b).

(8a) There's a woman in the house.

(8b) Q. What's worth visiting here?

A. There's the park, a very nice restaurant, and the library.
That's all as far as I'm concerned. (pp. 300-301)

(8a) belongs to the prototype often introduced as the first example of an "existential construction" in referential grammar books (e.g., Quirk, Greenbaum, Leech & Svartvik, 1972; Huddleston, 1988). The use of *there* in a sentence such as (8b), however, has often been ignored although some researchers have recognized similar cases (e.g., Erdmann's (1976: 275) "cases of enumeration"). Rando and Napoli found that even definite NPs can be the logical subject of the LIST type of sentence because the logical subject of the sentence is not an individual item in the list, but the list itself. Therefore, as long as the list itself is new information, the individual items in the list can be definite or indefinite.

In spite of these insightful findings, most of the studies presented above are observational in nature,¹ focusing mainly on qualitative description of the NR *there* sentence. In order to provide a more complete perspective, Lloyd-Jones (1987) quantitatively analyzed NR *there* sentences in American English. Her corpora were composed of approximately 200,000 words of both written and spoken texts representing a variety of genres. She investigated the frequency and distribution of semantic and syntactic characteristics of NR *there* sentences observed in the corpora. Among the results she found were: (a) NR *there* occurred more frequently in the spoken texts than in the written texts; (b) The most frequent logical subject nouns are those denoting abstract things; (c) Nearly 50% of the logical subjects were preceded by some kind of quantifier; and (d) The most frequent syntactic category was "*there* + *be* + NP + adjectival modifier(s).

Although Lloyd-Jones' (1987) study supplements the qualitative analyses with a quantitative perspective, it also confined itself to sentence-level analyses. It is true that some studies such as Bolinger (1977) and Celce-Murcia & Larsen-Freeman (1983) examined certain NR *there* sentences from a broader discourse perspective, but they did not provide quantitative analyses to describe the usage of such sentences more comprehensively. Most studies do not explain how the individual *there* sentence interacts with other sentences in the discourse, and how frequently it does so in that particular way. Therefore, the present study not only adopts a quantitative approach, but also examines topic continuity and maintenance of the relevant referents in the NR *there* sentences in three types of spoken American English discourse (i.e., informal conversations, radio show call-ins, and narratives). The four working hypotheses are as follow:

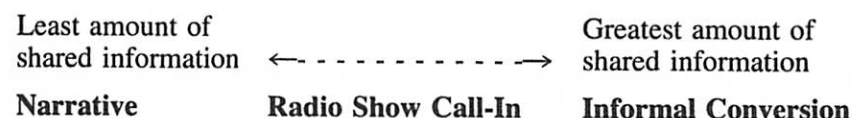
1. The logical subject NPs in NR *there* sentences tend to have low topic continuity (i.e., they tend to represent new information), and tend to be the topic of subsequent clause(s).
2. The elements following the logical subject of NR *there* sentences (the post-subject elements) have high topic continuity (i.e., their central referents have been previously mentioned in the discourse).
3. The logical subject NP tends to be a subcategory of something entailed previously in the discourse.
4. The NR *there* sentences in the three speech types (informal conversation, radio show call-ins, narratives) display qualitative differences although they share the general trends described by the first three hypotheses.

Hypotheses 1 and 2 are based on many researchers' claims that the logical subject of an NR *there* sentence introduces new information and that the post-subject element represents old information (cf., Erdmann, 1976; Bolinger, 1977; Breivik, 1981; Celce-Murcia & Larsen-Freeman, 1983). These claims have been made, but they have never been quantified. Hypothesis 3 is motivated by Erdmann's (1976) finding that NR *there* sentences sometimes function to specify a "subset." The finding seems to be related to the discourse function of NR *there* sentences, and thus it has become a hypothesis here. Hypothesis 4 presupposes that differences might exist among different kinds of speech. Since the condition for introducing new information is associated with the shared information between the speaker and the listener, a difference in the shared amount of information among the three speech types might make some difference (see the data section below).

2. Methodology.

2.1 Data The data for the present study come from the UCLA Oral Corpus. The corpus consists of 32 sources (141,537 words) of tran-

scribed spoken American English representing a wide variety of registers, styles and genres. Three types of conversation between two people (informal conversations, radio show call-ins, and narratives) were chosen because they represent varying amounts of shared background information between the speakers and the listeners. That is, the speakers are assumed to share the most background information in informal conversation because they tend to select topics relevant to the listeners. Moreover, the speakers and the listeners in informal conversation frequently alternate their roles, taking the initiative for topics interchangeably. In contrast, in narratives, the narrators must assume the major role, filling in the information gap between them and their listeners. The speakers and the listeners in radio show call-ins share an intermediate amount of background information. Their topics tend to be narrowly focused (e.g., about "gardening" in the radio-show called "The Garden lady"), but the format allows for free interchange and turn taking. The relations among these three speech types are illustrated below.



A total of 90 NR *there* sentences, 30 for each speech type, were collected. In order to represent as many individual styles in each speech type as possible, at least 2 sources were chosen for each type of speech data. Table 1 presents a list of these sources. The number of collected NR *there* in each source is also provided.

2.2 Method. In order to test the four hypotheses, two quantitative measurements developed by Givón (1983a) were applied with some modifications. These terms are defined in Givón (1984: 111):

Referential Distance: The distance from the present mention of a topic NP and the last clause where the same referent was a semantic argument within the clause, in terms of *number of clauses*.

Decay: The number of clauses to the right, from the locus under study, in which the same topic/referent persists in the discourse register as the argument of some clause.

Table 1. Sources Used

Type of speech	Sample size	# of collected NR <i>there</i>
Informal Conversation		
Getting to know each other: Butler-Wall (1986) dissertation data	15,389	15
The pearl: Giving a birthday gift to a teacher	1,069	5
Weinstein transcript	41,920	10
Total		30
Radio Show Call-In		
Garden Lady	11,632	10
The affair #1	1,618	3
Boyfriend Addiction	1,880	3
Fear of snakes	1,275	3
Anger	341	2
Inherited child	1,315	3
Egocentrism	1,248	3
The possessive woman	1,548	3
Total		30
Narrative		
The Zank story	2,274	5
Great Lakes shipping captain interview	9,722	25
Total		30

Both referential distance (RD) and decay have been used as effective tools for measuring topic continuity of NPs in quantitative studies in several languages (e.g., Givón, 1983a, 1983b, 1984; Hinds, 1983).

Givón's RD value represents continuity of a topic NP from the previous part of the discourse. Considering constraints on human short-term memory, Givón (1983a, 1984) sets the upper limit of referential distance at 20. That is, if a topic is not mentioned in the previous 20 clauses, it receives a value of 20 whether or not it had appeared before the 20th previous clause (i.e., to the left of the clause in question). Thus, the RD value ranges from 1 to 20, depending on the continuity of each topic. If a topic NP is mentioned in the clause immediately before the present mention, it receives a value of 1, indicating the greatest continuity. If a topic NP is new or has not been mentioned in the last 20 clauses, it receives a value of 20 indicating the least degree of continuity.

Although RD is a useful tool for measuring the topic continuity of the central referent for both the logical subject NP and the post-subject element in most cases, other grammatical element such as verbs can also be a central referent as shown below:

- (9) Garden Lady: They will *prune* them all the way back to twelve fifteen inches every single year and they are going to have fantastic roses at the expense of quantity, and if you want to have a lot of roses with not quite as long stems, you can *prune* about eighteen, twenty-four inches.

Caller: umhnum

Garden Lady: *There* are however some rosarians that are **prunning** their roses at thirty inches and getting masses and masses of flowers on their first flowering.

(Garden Lady, Lines 79–98)

In (9), the verb “prune” is the central referent of the post-subject element in the NR *there* sentence as well as the general topic of the discourse containing the sentence. If any kind of grammatical element can be a topic rather than only an NP, we can correctly capture cases such as (9). Thus, in the present study, the definition of referential distance presented above was modified as follows:

(Modified) Referential Distance: The distance from the present mention of a topic *element* (e.g., NP, VP, ADP) and the last clause containing the same referent, in terms of number of clauses.

Givón's decay value represents another aspect of topic continuity: persistence. If a topic NP is not mentioned until the third clause after

the present mention, it receives a decay value of 3. The higher the decay value, the more persistent the topic. As exemplified in (10) and (11), other kinds of grammatical elements in addition to NPs can be the target objects for decay values:

- (10) 'cause *there's* so MANY of 'em **here**.

(Getting to know each other, Line 9305)

- (11) T: When do you remember first being afraid of a snake?

C: I can't remember NOT being afraid of 'em.

T: You can't remember NOT being afraid of them. But it's not as if *there* was the the thing that **happened** and the snake bit you once or you saw it once when you were a little girl =

C: Well, several things have **happened** =

(Fear of snakes, Lines 5437–5442)

The adverb “here” in (10), and the verb “happen” in (11) are the central referents of the post-subject elements in each NR *there* sentence. Just as the definition of RD was modified to accommodate types of grammatical elements other than NPs as the target of analysis, the definition of decay was modified as follows:

(Modified) Decay: The number of clauses to the right, from the locus under study, in which the same topic/referent persists in the discourse register as a component (e.g., NP, VP, ADP) of some clause.

This measurement is still defective in that it does not correctly measure a topic that is persistent, but does not appear in immediately adjacent clauses. Consider the following:

- (12) 18333 C: Well, the thing is, that when you see the boat at the dock and you

18334 see all that steel and all that riveting, you think well, *there's*

18335 nothing gonna harm this boat, and when you're out on a big storm,

18336 you're wondering what's keeping *it* together.

(Great lakes shipping captain interview, Lines 18333–18336)

The central referent of the post-subject element, “this boat” in (12) continues from Line 18334 to Line 18336, but it only gets a decay

value of zero because the topic discontinues by the clause "and when you're out on a big storm, you're wondering" preceding the clause "what's keeping it together" where the topic is realized again as the pronoun "it." Because clauses in a hypotactic structure such as (12) can be assumed to constitute one coherent episode (cf., Halliday, 1985: 56-64), a further modification was made to Givón's definition of "decay" in the present study as follows:

Modification to the measurement of decay values: A topic is regarded as continuing as long as it is mentioned in one of the main or subordinate clauses.

Thus, the topic "this boat" in (12) received a decay value of 3 although there were two intervening clauses before its next mention.

Except for the modification described above, the original measurement systems of both RD and decay were more or less followed in the present study for the sake of comparability to previous studies using the same measurements (e.g., Givón, 1983a, 1983b; Hinds, 1983).

3. Results.

3.1 Sentence-level analyses. In order to compare the results of the present study with those of previous investigations, two sentence-level analyses were first conducted. The 90 NR *there* sentences in the data were classified according to the semantic characteristic of their logical subject NP as well as their syntactic structures. Lloyd-Jones' (1987) categorizations were employed for both classifications because her spoken data were similar to the data of the present study². First, the logical subjects of the NR *there* sentences were classified into four types: (1) NPs denoting abstraction, (2) NPs denoting concrete objects or physical things existing in the universe, (3) NPs denoting events or activities, and (4) NPs denoting beings. Examples for each type are given below:

1. **NPs denoting abstraction (Type A)**
evidence, way, thing(s), questions, something, nothing, reason, time
2. **NPs denoting concrete objects or physical things existing in the universe (Type C)**
orange trees, begonias, tea, TV, beer, boat

3. NPs denoting events, activities, or states (Type E)

shipping traffic jams, energy development, depression (of 1929)

4. NPs denoting beings (Type B)

people, three or four of us, a guy, nobody, somebody

Table 2. Semantic Classification of the Logical Subject NPs

Type of subject NP	Inf. Co. # (%)	Radio. # (%)	Narr. # (%)	Total # (%)
NPs denoting abstraction (Type A)	15 (50)	22 (73.3)	5 (16.7)	42 (46.7)
NPs denoting concrete objects or physical things existing in the universe (Type C)	8 (26.7)	4 (13.3)	10 (33.3)	22 (24.4)
NPs denoting events and activities (Type E)	0 (0)	0 (0)	8 (26.7)	8 (8.9)
NPs denoting beings (Type B)	7 (23.3)	4 (13.3)	7 (23.3)	18 (20.0)

Table 2 presents the frequency of each of these four classifications in each type of speech. The ratio of each type differs across speech types. The most frequent type in both the informal conversation and the radio show call-in was type A while the most frequent one in the narrative was type C. These differences might depend on the topics of the conversations contained in each type. Since no statistical test is available for this kind of data,³ however, it is impossible to test the significance of the differences among the three speech types.

As a second sentence-level analysis, the NR *there* sentences were divided into five categories according to their syntactic structure. Since there was no verb except the variations of "be" in the present data, the other verbs in Lloyd-Jones (1987) classification were excluded. These categories are presented below with relevant examples from the present corpus.

1. There + be + NP + post-NP modifier(s) (Type PM)

The post-NP modifiers in this category can be relative clauses, adjective phrases, infinitives, or prepositional phrases.

(13a) There are not too many things that will do very very well

(13b) There is something special

(13c) There are some special ways to cut the climbing roses

(13d) Is there any problem with it?

2. There + be + NP (Type BA)

This type of NP *there* sentences is called "bare" because it does not have any post-logical subject element.

(14) They tend to get pretty sad looking if there's cold weather

3. There + be + NP + expression of place (Type PL)

This type has generally been regarded as a "prototype" of the NR *there* sentences. The expression of place can be an adverbial as in (15a) or a prepositional phrase as in (15b).

(15a) There's lots of 'em here

(15b) There are some restaurants in this town.

4. There + be + NP + adverbial phrase (Type AD)

This category contains adverbial phrases other than the expression of places as the post-logical subject elements.

(16) Was there a fire a couple days ago?

5. There + be + NP + participle (Type PA)

Either a present participle as in (17a) or a past participle as in

(17a) there couldn't have been enough water coming in

(17b) There was just so much money appropriated

Table 3. Syntactic Classification of the Target Structure

Type of sentence	Inf. Con. # (%)	Radio. # (%)	Narr. # (%)	Total # (%)	L-J* # (%)
there + be + NP + PM (Type PM)	16 (53.3)	22 (68.8)	8 (25.0)	46 (48.9)	(62.0)
there + be + NP (Type BA)	9 (30.0)	5 (15.6)	7 (21.9)	21 (22.3)	(17.4)
there + be + NP + PL (Type PL)	5 (6.7)	5 (15.6)	4 (12.5)	14 (14.9)	(11.0)
there + be + NP + AD (Type AD)	0 (0)	0 (0)	5 (16.6)	5 (5.3)	(4.0)
there + be + NP + PA (Type PA)	0 (0)	0 (0)	8 (18.8)	8 (8.5)	(3.7)
total	30 (100)	32 (100)	32 (100)	94** (100)	(100)

*Lloyd-Jones (1987), a total of 507 tokens; spoken and written combined

**The frequency exceeds 90 because 4 sentences had two types as exemplified in (18):

(18) Was there a fire a couple days ago in the elevators?

(18) has both the "there + be + NP + PL" type and the "there + be + NP + AD" type at the same time.

All these types except type BA contain the "post subject elements" that will later be re-analyzed in the "beyond the sentence-level analyses" section. Table 3 presents the frequencies of these five categories observed in the present data with the results of Lloyd-Jones (1987). Here again, the frequency of each type varies across speech types. The PM type was the most frequent for both the informal conversation and the radio show call-in, but in the narrative, frequency was more equally distributed among the three types: PM, PA, and BA. It is interesting, however, that although the results from the individual speech type do not appear similar to those of Lloyd-Jones (1987), the results of the three speech types combined (i.e., the total) do look similar to those of Lloyd-Jones (1987) (see Table 3).

3.2 Beyond the sentence-level analyses.

Hypotheses 1. The logical subject NPs in NR *there* sentences tend to have low topic continuity (i.e., they tend to represent new information), and tend to be the topic of subsequent clause(s).

Table 4. Average value of Referential Distance and Decay for the Subject NP

range →	Referential Distance 1–20	Decay 1–∞
Inform. Con. (n = 30)	15.80	1.20
Radio Show (n = 30)	16.47	1.77
Narrative (n = 30)	17.87	0.73
Total (n = 90)	16.71	1.23

Table 4 shows the average value of RD and decay for the logical subject NPs for the three speech types. Here, the difference among the three speech types does not look as great as the difference observed in Tables 2 and 3. Although the values for the three speech types are different, they seem to share general trends for both RD and decay. The average RD value (16.71) for the total appears relatively low. If the logical subjects introduce a completely new piece of information, as has been suggested by many researchers (e.g., Bolinger, 1977; Breivik, 1981), they would have received RD values of 20. In fact, the logical subjects in 73 out of the 90 (81%) NR sentences had a RD value of 20. However, the remaining logical subjects in all the three speech types represented high topic continuity, and thus had a very low RD value (with RD values ranging from 1 to 8) as in (19).

(19) (C was talking about the grain elevators on several docks.)

C: . . . And of course uh, they uh, torn down several grain elevators and they've also built several and sometimes you wonder what they're doing.

I: What? With building more?

C: Yeah, they're building new ones. Of course some of them were pretty old but uh, I don't know why they built—tore down that one in Itasca.

I: Was that the biggest one or . . .

C: Well, *it* wasn't the largest one, no. Let's see, *there* was **one** in Itasca you know, past the Great Northern ore docks.

(Great Lakes Shipping Captain Interview, Lines
18907–18916)

The logical subject of the underlined NR *there* sentence, 'one', was mentioned as 'it' in the sentence just before, thus receiving a RD value of 1.

The average decay value (1.23) for the total was relatively high considering the fact that we basically followed the strict measurement of decay defined by Givón (1984)⁴. As can be seen in the RD values among the three speech types, the informal conversation had the highest topic continuity whereas the narrative had the lowest. In terms of the decay value, the radio show had the highest degree of topic persistence whereas the narrative had the lowest. This implies that in narratives, the speakers tended to introduce new information as the logical subjects of the NR *there* sentences more often than in other types of speech, but the new topics did not persist in the subsequent discourse as long as in other types of speech. On the whole, the logical subject NPs tended to represent relatively new information (but not completely new), and tended to be referred to in the subsequent discourse. This supports Hypothesis 1.

Hypothesis 2: The elements following the logical subject of NR *there* sentences (the post subject elements) have high topic continuity (i.e., their central referents have been previously mentioned in the discourse).

All types of NR *there* sentences except the BA type (i.e., the 'bare' structure type) described earlier in the sentence-level analyses section have some kind of 'post subject elements.' There are 21 such sentences with post subject elements in the informal conversation, 25 in the radio show, and 23 in the narrative. Table 5 presents the average value of RD and decay values for the post-subject elements observed in the three speech types. Here again, the differences among the three types are not as great as the differences presented in Tables 2 and 3. All three types share the same general trend: fairly low RD values, and relatively high decay values. It is noteworthy that the RD values for all three speech types in Table 4 are much lower than the corresponding referential values for the logical subjects presented in Table 5, implying that the post subject elements tended to contain more continuous topics than the logical subjects. The decay values for the post subject

Table 5. Average value of Referential Distance and Decay for the Post Subject Element

range →	Referential Distance 1-20	Decay 1-∞
Inform. Conversation (n = 21 in 21 sentences)	4.62	2.14
Radio Show (n = 27 in 25 sentences*)	4.31	1.00
Narrative (n = 25 in 23 sentences*)	5.67	1.25
Total (n = 90)	4.87	1.46

*Two sentences in each of the radio show and the narratives have two central referents as exemplified in (18) repeated here as (20):

(20) Was there a fire *a couple days ago in the elevators?*

elements indicate relatively high topic maintenance, that is, the central referent of the post subject element tended to persist in the subsequent part of the discourse. These findings confirm Hypothesis 2.

As observed in the logical subjects, both the RD values and the decay values for the three speech types are slightly different. The radio show has the lowest RD value, indicating the highest topic continuity, whereas the narrative has the lowest topic continuity. The post subject elements in the informal conversation have the highest decay values indicating the highest persistence whereas those in the radio show have the lowest.

Hypothesis 3. The logical subject NP tends to be a subcategory of something entailed previously in the discourse.

In order to test Hypothesis 3, the logical subjects of 90 NR *there* sentences were examined. Table 6 presents the average values of RD and decay for the subject NP as a subcategory of an element in the previous discourse. It was found that 20 out of 90 (22.2%) subject NPs were subcategories of things mentioned previously in the discourse, as exemplified below:

(21) (Kate was talking about the school she used to attend. She explained that the school offered strange classes.)

Kate: they have a LOT of 'em I know somebody was just telling me *there's* like a ONE class like I think *it* was GEOLOGY or somethin' like that where all *they* DO is like *they* go on FIELD trips once a week and that's *the whole CLASS* =
(Getting to Know Each Other, Lines 10301-10305)

Table 6. Average value of Referential Distance and Decay for the Subject NP as a Subcategory of an Element in the Previous Discourse

range →	Referential Distance 1-20	Decay 1-∞
Inform. Con. (n = 5)	1.20	3.20
Radio Show (n = 5)	3.40	6.20
Narrative (n = 15)	2.33	1.67
Total (n = 20)	2.40	3.60

In (21), the logical subject of the NR *there* sentence, "a ONE class," had an RD value of 20 since it was introduced for the first time. However, it was also a subcategory of the "strange classes" Kate was talking about in the previous part of the discourse (i.e., "'em"). Thus, if we count the RD in terms of the last mention of a more general category that the logical subject belongs to, it receives a RD value of 1, which indicates high topic continuity. There are five such logical subjects in both the informal conversation and the radio show call-in, and 15 in the narrative. This finding partly supports Hypothesis 3, that is, the hypothesis is confirmed in some cases, but not by all.

Hypothesis 4: The NR *there* sentences in the three speech types (informal conversation, radio show call-in, narratives) display qualitative differences although they share the general trends described by the first three hypotheses.

As seen in Table 6, the logical subjects as subcategories all showed higher topic continuity than when they were treated on their own, and a higher degree of persistence indicated by the decay values (recall Table 4). On the other hand, qualitative differences were also observed among the three different types of speech. First, the narrative

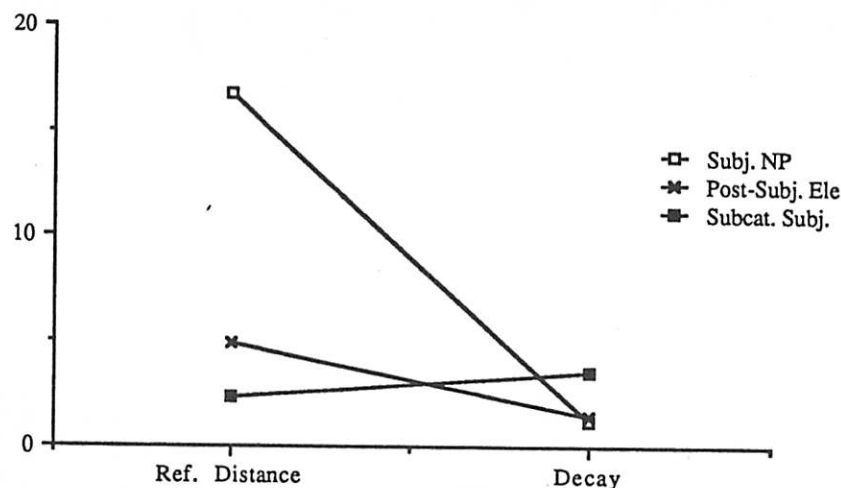


Figure 1. Average Values of Referential Distance/Decay of the Three Elements

data had three times as many logical subjects as subcategories of the things mentioned previously as the other two types of speech. This should not be surprising because these subjects were either NPs denoting concrete objects, or beings, and the narrative contained the largest number of such categories. Secondly the logical subjects as a subcategory in the informal conversation had the highest topic continuity while those in the radio show had as great a decay value as 6.2. The low RD value for the informal conversation implies that its logical subjects as a subcategory, tended to be related to an immediately preceding part of the discourse. The high decay value for the radio show indicates that the speakers tended to talk about the topic introduced as the logical subjects much longer than in the other speech types. As described previously, such qualitative differences among the three speech types were also observed in the analyses of the logical subjects and the post-subject elements. Thus, Hypothesis 4 was supported.

To summarize, all the hypotheses set up in the present study were generally supported.

Figure 1 summarizes the average topic continuity and topic maintenance of the logical subjects, the post-subject elements, and the logical subjects as subcategories of a previously mentioned referent for the three speech types combined. The logical subjects tended to be

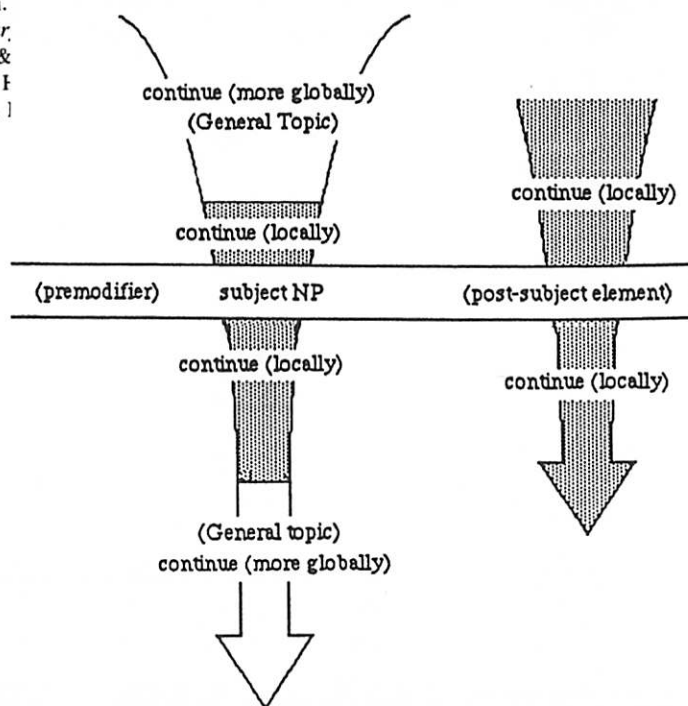
introduced as new information although they represented high topic continuity in some cases. They had the lowest decay values among the three elements. The post-subject elements tended to have relatively high topic continuity (indicated by the low values of RD). They had a similar degree of topic persistence (indicated by the decay values) to the logical subjects. The logical subjects as subcategories had extremely high topic continuity, and a very high degree of topic persistence. This means that the logical subjects as subcategories were closely related to a more general topic mentioned just before, although these logical subjects tended to introduce something new under the general category. The topics introduced as the logical subject continued to be referred to for some length, but not as long as the more general topic persisted.

4. Conclusion. The results of the sentence-level analyses of the present study imply that there was semantic and syntactic diversity in the NR *there* sentences in different types of speech. This highlights the danger of treating different types of speech as homogeneous. As the results of the sentence-level analyses of the three speech types indicated, critical differences might be washed away by totaling the results from different types of speech.

The results of the discourse-level analyses revealed various aspects of the function of the NR *there* sentences in spoken American English. The logical subjects tended to introduce new information, and the topic introduced by the logical subjects tended to persist in subsequent discourse. The post-subject element, on the other hand, tended to be related to the preceding part of the discourse, and tended to persist as long as the topic introduced by the logical subjects. Thus, it is possible to say that the post-subject element was functioning as what Fox (1987) calls an "anchor" or a "linker" of the new topic introduced by the logical subject to the preceding part of the discourse.

More importantly, some logical subjects also tended to be related to the preceding discourse through their relation as a subcategory of the broader discourse topic. Since these broader topics tended to continue much longer than both the logical subjects and the post-subject elements, they can be regarded as a higher umbrella-type topic that covers the subtopics of the logical subjects and the post-subject elements. Such observations challenge the traditional view that the function of NR *there* is only for postponing the new information until later in the sentence. The relationship among the elements discussed above is illustrated in Figure 2.

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van Riemsdijk, F
Cambridge, 1



course Function of NR There Sentences Related to Topic Continuity. The white area in the left arrow represents the continuity of the global to the logical subject NP. The shaded area in the left arrow represents the continuity of the subject NP while the right arrow represents the continuity of the post-subject element. The shaded area in the right arrow is not in the left arrow because the post-subject elements tend to have more topic continuity than the logical subject NPs. See text for details.

When differential trends were clearly observed among the speech types, the sample size of each speech type ($n = 30$ each) was small, and the results can suggest no more than observed trends. In order to generalize the findings, further studies with larger sample sizes for each speech type (at least 50 each) will be

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ENDNOTES

*I would like to thank Marianne Celce-Murcia, Bob Jacobs, and Evelyn Hatch at the University of California, Los Angeles, and the anonymous reviewers of WORD for their valuable comments.

Needless to say, I alone am responsible for any remaining errors and oversights.

¹Erdmann (1976) is one of the few studies with a quantitative orientation. He examined NR there sentences in 39 British novels originally published between 1930 and 1960.

²In fact, part of Lloyd-Jones' spoken data came from the UCLA oral corpus.

³Since more than two tokens came from the same source of the data, the chi-square is not appropriate for testing the significance of the differences among the three speech types. Other non-parametric type of tests such as the loglinear analysis can not be applied here, either, because the sample sizes are too small. (Evelyn Hatch, personal communication, December, 1989).

⁴According to Givón (1983b), a decay value above 1 is supposed to exhibit high persistence in spoken English.

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REVIEWS

LAURENCE R. HORN, *A natural history of negation*, Chicago; The University of Chicago Press, 1989. Pp. xxii, 637.

Reviewed by BARBARA ABBOTT

We shall see why negation is to the linguist and linguistic philosopher as fruit to Tantalus: waving seductively, alluringly palpable, yet just out of reach, within the grasp only to escape once more. (xiv)

This impressive and delightful work is more than its title suggests. A critical retrospective of work on negation going back to Aristotle and the Stoics, fascinating in its own right, here in addition provides a background and matrix for the analysis of negation phenomena in natural language which weaves synchronic and diachronic data from a variety of languages and contexts, on morphological, syntactic, semantic, and pragmatic levels. At every step of the way current analyses are discussed in conjunction with their (frequently many) antecedents including Horn's own earlier work, and thus the book is a culmination of sorts which incorporates and develops work going back through the author's widely-circulated 1973 UCLA dissertation *On the semantic properties of logical operators in English*. The rich discussion clusters around several major themes: (i) explanations for patterns of lexicalisation and semantic drift observed with negative affixation and negated predicates; (ii) arguments for (semantic) negation as a predicate operator rather than a sentence operator; and (iii) arguments against views that (sentence) negation is univocal as well as those that hold that it is semantically ambiguous, and in favor of recognizing a meta-linguistic negation operator.