

Anaphoric Relations in Native and Non- Native English Conversations

Abdallah H. Al-Kahtany

College of Languages and Translation, King Khalid University
Abha, Saudi Arabia

Abstract

This study followed an empirical approach of data collection and analysis to find out about the process through which native speaker and non-native speaker of English negotiate cohesion through anaphoric relations in conversations. The frequency of different anaphoric patterns (sequential, return-pop and overlap) and referential choices as produced by native and non-native speakers in addition referential distances involved are reported. Variance that indicted discourse significance is analyzed. Though both native and non-native speaker of English seem to have access to all anaphoric patterns, findings showed significant difference in the frequency and distribution of their anaphoric patterns and the coding devices used by the two groups. Such variance was attributed to a number of factors: the volume of discourse used by each group, the diverse linguistics and cultural background of the non-native speakers as well as non-native speakers inability to observe some discourse constraints as their native counterparts. The study emphasizes the importance of including supra-sentential discourse elements like anaphora and other cohesive devices as an integral part of second language teaching curricula.

Introduction

Anaphoric usage refers to the situation "where some term picks out as a referent the same identity." Levinson (1983: 67). Thus, anaphoric relation takes place when a pronoun is interpreted in terms of its relation to a referent noun phrase (NP) carrying the same syntactic and semantic information in the discourse. Halliday and Hasan (1976: 18) referred to the type of relation that holds between anaphoric pronouns and their referent NP's as that of "cohesiveness." They proposed two types of anaphoric relations: *exophoric*, referring to cases where the pronoun relies on information outside the boundaries of the given text for interpretation, and *endophoric*, where interpretation of anaphoric pronouns is dependent on contextual information.

Halliday and Hasan (1976) introduced another type, termed cataphora, which involves pronominal anaphora where their interpretation depends on a NP referent, which is subsequently mentioned in the text, as in:

"In addition to **his** work in linguistics, **Chomsky** has become well known for **his** writings in other areas."

For all practical purposes, however, all instances of cataphora fall outside the scope of the present study. More specifically, we will be concerned with what Curden (1982) referred to as "backward anaphora" as illustrated in the following sentence:

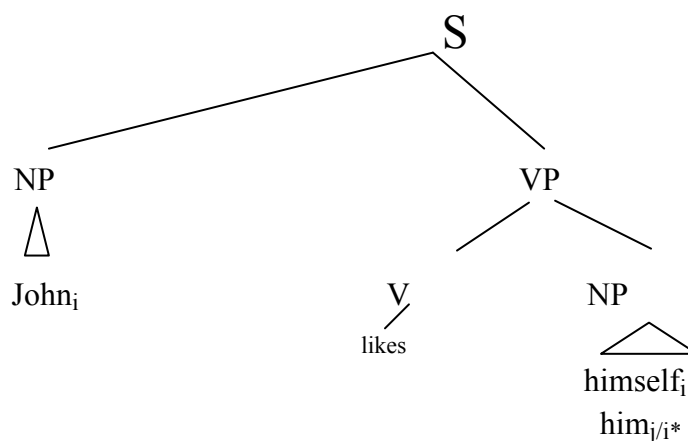
"**Chomsky** is such a well known linguist that many modern trends in linguistics are associated with **his** name."

In this anaphoric relation, interpretation of the pronoun takes place in reference to some previously given referent NP. Despite the use of the general term 'anaphora' in describing the conversations of native and non-native speakers of English, only backward anaphora will be considered in this study.

Many studies have challenged Chomsky's (1981) binding principle for anaphoric relations. The principle states that:

An anaphor is bound in its category.

α is bound by β if and only if α and β are coindexed, and β c-commands α . β c-commands α if the first branching node dominating β dominates α and if neither β nor α dominates the other.



The existence of any type of anaphors outside the category of the anaphor challenges the c-command constraint of the principle, as in the following example in Pollard and Sag (1992:2):

The picture of himself_(i) on the front page of the Times made Mary's_(i) claim seem somewhat ridiculous.

Nevertheless, this study is concerned with anaphoric relations beyond the scope of syntactic constraints. Such constraints are not always observed in languages other than English (Black 1996:79) or in long distance sentential anaphoric relations (Choi 1997).

Levinson (1991) stated that it is not always possible to explain anaphoric relations based on structural constraints like that of A over A Principle of c-commands. He alluded to the need to account for other discourse aspects of texts. Al-Kahtany (1992:89) emphasized the role discourse factors, like topic worthiness of antecedents and discourse units, play in the distribution of different anaphoric patterns and referential distance between anaphors and their referents within a text.

Many applied linguistics researchers have come to recognize the importance of discourse analysis, which in the past had been viewed as within the realm of theoretical linguistics alone. Various studies have shed light on the importance of discourse studies, while revealing the conditions under which native speakers process language in different types of discourse. Houghton and Hoey as early as 1982 emphasized the need of collaborative efforts between discourse analysts and second language acquisition researchers: "The linguists must build bridges between their various theories and studies before the students can build their bridges between the rhetorics of their first language and the language they seek to acquire"(p.40).

Vandebrook, Schlue, and Campbell (1980), for example, studied the conditions under which native speakers of English produce uninverted forms of Yes/No questions. Schwartz (1980) studied self-corrections and those of others in conversations of ESL learners. She compared her findings with the work of Schegloff, Jefferson, and Sacks (1977), who focused on the same phenomena in conversations among native speakers of English. Larsen-Freeman (1980) has suggested that the findings of such studies can tell us what these conditions might be. Then, if we observed such variables

in the production of non-native speakers, we could calculate to what extent these constraints were realized in their speech.

In recent years, some research has begun to take a look at anaphora as a cohesive device in discourse. As mentioned earlier, Halliday and Hassan (1976) were among the pioneers in postulating the relationship of anaphora to text cohesion. Additional studies have dealt with various aspects of anaphora. Fox (1987), for instance, studied distributional frequencies of pronominal anaphora in spoken and written English discourse. While pronouns play principally a cohesive, referential role throughout world's languages, the way in which they are used within different linguistic systems is highly dependent on the speech repertoire of the available anaphoric coding devices (Mithun, 1990: 67). Selections of a specific coding device is not haphazardly executed but rather highly systematic and governed by cognitive and discourse constraints (see Clancy, 1980; Fox, 1988; Givon, 1983; and Payne, 1988).

Hirst and Brill (1980) and Sanford and Garrod (1981) concerned themselves with the role of general knowledge in the interpretation of anaphoric pronouns. Shillcock (1982) used what he called an "on-line technique" to investigate the activation of referent NP's in anaphoric patterns. Clancy (1980), utilizing data based on what is known as the "Pearl Film" (for more details see Al-Kahtany, 1998: 40-41), performed an interesting study in which she investigated the cognitive and discourse constraints that governed the selection of referential choices in Japanese and English.

Purpose

In this study, attention will be directed to four aspects:

- A. Discussing major anaphoric patterns in each type of discourse (NS-NS and NNS-NNS conversations) and referential distance of each pattern for both groups.
- B. Highlighting the areas of negotiation in NS-NS and NNS-NNS conversations, especially areas involving communication breakdown resulting from anaphoric misinterpretation. We will relate this to the model of negotiation proposed by Varonis and Gass (1985).

- C. Investigating contextual dependency among interlocutors to establish anaphoric relations. We will be especially concerned with how NS's and NNS's establish reference: whether by referring to their own previous utterance or by reference to their partner's previous utterance.
- D. Observing distributional frequencies of referent NP's and their anaphoric pronouns in both types of conversations.

Methodology

Subjects

The data for this research was transcribed from the conversations of four NS-NS dyads (pairs I, II, III, IV) and four NNS-NNS dyads (pairs V, VI, VII, VIII). The eight NS's of English were all staff members of the English Language Center (ELC) at Michigan State University. The four dyads consisted of one male/male, one female/female, and two male/female pairs. The eight NNS's were all upper intermediate level students at the ELC. They were paired as follows:

- V. Male, Korea & Male, Saudi Arabia
- VI. Male, Japan & Female, Switzerland
- VII. Female, Thailand & Male, Indonesia
- VIII. Female, Korea & Male, Japan

Data:

In both groups, the taped speech event centered on a video presentation of "The Pear Film" (originally produced as a sound and color 16mm film), which was designed to be used for academic research in discourse analysis. This specific task was selected for our study for the following reasons:

- 1) The film was mainly designed for research purposes by well-known scholars in discourse analysis. It was produced in such a way that it would provide insight into how people talk about things they have experienced and later recalled (Chafe, 1980; and Tannen, 1984.)
- 2) The film was designed to be easily interpreted by people from different cultural backgrounds through the use of an uncomplicated plot.
- 3) The film depicted a group of people and objects participating in the events in various modes, thus providing good raw material for anaphoric operations (Chafe, 1980).

- 4) The film has proven useful in the research of studies involving anaphora. (In fact, a whole collection of literature was based on the movie - see *The Pear Stories*, Chafe, 1986.)

Procedures

As noted earlier, the subjects of this study consisted of 16 people - 8 native speakers of English and 8 non-native speakers of English. Both groups were divided in half. One half of the members of each group saw the film. After viewing the film, each of these participants returned to discuss its contents with a partner who had not seen it. Those who saw the film, who were termed 'givers,' were instructed to give responses to the questions of their partners concerning the contents of the film. Those who did not see the film, the 'receivers,' were instructed to find out as much as they could from their partners about the contents of the film. Both groups were informed that after the conversations were finished, there would be a short quiz concerning the contents of the film.

The conversations were recorded on audiotape with the knowledge and consent of all participants. Aside from the tape recorder, conversations were unmonitored. After the task was completed, a brief quiz was administered to all subjects concerning the contents of the film. Finally, the recorded conversations were transcribed and analyzed by the researcher.

Since the task for NS-NS and NNS-NNS conversations was controlled to be included in the boundaries of the same speech activity (genre), interference of task type in the results is very limited. At this point, I think it is appropriate to mention that in my opinion, the possibility of cross-cultural influence on the non-native speakers group in treating such cohesive schemata as anaphora is unwarranted. Scollon and Scollon (1984) reported that in Athabaskan narratives, only the first mentioned NP in the stanza can work as a referent for anaphoric pronouns regardless of its syntactic function. Other NP's cannot work as antecedents.

Analysis

1. Anaphoric patterns

In this study, focus will be directed to the occurrence of the three major anaphoric patterns, which have been identified in the literature as - sequentially distributed, return-pop, and overlap. Each type is defined briefly below:

Sequentially distributed anaphoric pattern

This pattern has the form of a mentioned NP followed by a sequence of one or more coreferential pronominals until the sequence is closed, i.e. no reference to the NP is activated and continuation of pronominalization is terminated. Fox (1986: 29) referred to this pattern with the following quote:

"The first mention of a referent in a sequence is done with a full NP.

After that, sequent mentions of the referent will be done with a pronoun until the sequence is closed."

Al-Kahtany (1992: 46) has diagramed this pattern as follows:

$CL1[NP_i \dots] CL2[\dots pron_i \dots] \{(CL3[\dots pron_i \dots])(CLn[\dots pron_i \dots])\}$

Return-pop anaphoric pattern

Fox (1986: 36) described this pattern as having pronouns that have previously mentioned referent NP's in the discourse, which were lastly referred to, by another pronoun. She observed the existence of two conditions on the 'popped over' clauses (gaps):

- 1) They should contain information relevant to the referent NP.
- 2) The 'popped over' material should not include complex structures.

Overlap anaphoric pattern

This pattern includes discourse units that allow the presence of more than one pronominal anaphor and have a similar number of referent NP's, thus the overlap.

2. Distribution and referential distance

For each of the three patterns, frequency of distribution, referential distance, and posterior referential distance will be measured and recorded, each of which is defined below.

Frequency of distribution

The frequency of each pattern will be measured relative to the opposing patterns as well as to the text as a whole.

Referential distance

Givon (1983:13) and Fox (1986,1987) used this term to refer to the "gap" between a previously mentioned referent NP (in this case) and its

coreferential pronouns. Givon proposed the clause as an instrumental unit for measuring the referential distance between referent NP's and their coreferential pronominals. In his study, he also held referential distance to a maximum of 20 clauses. Any gap that exceeded this limit was assigned a value of 20 clauses regardless of its length.

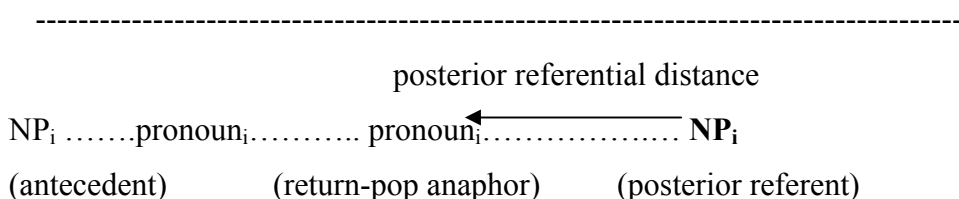
Givon's procedure was adopted for measuring referential distance in this study with one exception. Because the research involves the identification of anaphoric misinterpretation in NS-NS and NNS-NNS conversations, I have chosen not to impose his 20 clause limit. In addition, we will provide a measure of referential distance in number of turns which he did not.

Posterior Referential Distance

The term posterior referential distance is coined by the researcher to refer to the situation when there is a return-pop pronoun that is followed by a full NP that relates the same syntactic and semantic information as the antecedent NP of the return-pop anaphora. I term this NP the "posterior referent." The gap between the return-pop anaphora and its posterior referent NP we term "posterior referential distance." (This pattern does not occur after all return-pop anaphora, but appears with some frequency, as we will discuss later on.)

A posterior referent can be distinguished from cataphoric anaphora as defined by Halliday and Hasan (1976) in the sense that a pronoun that depends on its interpretation on a forward NP is a cataphora and part of a cataphoric pattern. In our case, there is a constraint on a post referent NP to be considered a part of a posterior anaphoric pattern.

Interpretation of a return-pop pronoun should not depend on the post referent NP. Instead, interpretation should take place before the post referent is mentioned. The following diagram will illustrate the relations we have been discussing:



A posterior referent NP has the function of reactivating the presence of the previously mentioned referent in the discourse (retrieving continuity in Givon's words) after a return pop. Posterior referential distance will be measured in number of clauses and in number of turns in both NS-NS and NNS-NNS conversations.

Only third person anaphoric pronouns will be considered in this study. By doing this, we will avoid accounting for indexically interpreted diectic elements such as 'I, we, you, etc.,' which depend on other non-linguistic information for interpretation (Fillmore, 1975). Also, pronominal anaphors that are counted in our analysis are only those involved in cohesive ties that can be interpreted because of linguistic contextual clues.

Analysis

This section of the paper will provide a detailed comparison of the findings regarding anaphoric distribution in the English conversations of NS and NNS dyads. Interpretations and discussions of the results will be provided along with their implications on the type of interactions involved among speakers in each group.

A. Anaphora distribution in NS-NS conversation

In this part of the study, the different anaphoric patterns and their frequency in conversations between native speakers of English will be discussed with some details.

1. Sequentially distributed patterns

As formerly illustrated, such patterns involve a first mentioning of a referent NP, followed by a sequence of coreferential pronouns that have referential cohesion ties with that NP, persisting until a closedown is reached. This continuity of reference to the antecedent NP has been referred to by Givon (1983) as "topic continuity." In NS-NS conversations, these patterns formed referential units, which ranged in closed referential distance from 1 to 13 clauses. The maximum number of turns covered using this pattern was 4. Sequentially distributed anaphoric patterns occurred most frequently in discourse situations where adjacency pairs were involved. Table 1 presents a summary of referential distance in sequentially distributed patterns in NS-NS conversation.

Table (1)
Referential distance in sequentially distributed pattern in NS-NS
conversations

Conversation	I. Cls trns	II. cls trns	III. cls trns	IV. cls trns	Average cls trns
	3.15 1.32	3.08 1.30	4.00 2.81	2.55 1.67	3.195 1.775

Examples 1 & 2. Adjacency pairs.

- 1) (39) G. So, about the girl ... was she the same age?
 (40) H. Yeah, she looked like about the same age.
 (41) G. And she went off and you didn't see her again?

(NS-NS, II.)

- 2) (6) F. Oh, I don't know ...the guys climbing a ladder, picking
 stuff out of a tree is what he's doing.
 (7) E. Is he a young guy, an old guy?
 (8) F. **Older guy.**
 (9) E. **Older guy.** Why... why is he picking stuff out of a tree?
 (10) F. I would imagine ... it's his tree. He's picking pears out
 of the tree and I would imagine it's his own tree ... it's like
 he's harvesting them.
 (11) E. What's **he** do after that?
 (12) F. **He** puts them in a basket.
 (13) E. And then?
 (14) F. And then (*) goes to get more.

(NS-NS, I.)

(NOTE: (*) = zero anaphora)

Sequentially distributed anaphoric patterns are the most frequently occurring patterns in NS-NS discourse. They comprised 68.10% of the different anaphoric patterns as shown in Table 2.

Table (2)

Anaphoric patterns in NS-NS conversations and number of anaphoric full NP's and their anaphors in NS-NS discourse

	Sequentially Distributed	Return-pop	Overlap	Anaphoric pronoun	Referential NP
NS-NS	254	86	33	373	118
Conversation	(68.10%)	(23.06%)	(8.84%)	(75.97%)	(24.03%)

In examples 1 and 2 above (NS-NS interaction), the interlocutors provided a context in which a sequence of anaphors was established. These adjacency pairs of question / answer type provide a context for longer sequences of anaphoric distribution.

2. Return-pop patterns

This anaphoric pattern refers to the case of referential relations where a gap of a number of clauses occurs between a referent NP and its coreferential pronoun. Fox (1986) mentioned that this pattern involves constraints in the sense that the 'popped over' material is not structurally complex. In other words, information relative to the referent NP or "background supplemental information" is provided. Even though this pattern involves relatively higher cognitive processes to interpret the anaphoric link, native speakers did not exhibit a single case of misinterpretation, perhaps due to the observation of the maxims. The referential distance between NP's and their return pop pronouns ranged from 2 to 20 clauses and from 1 to 16 turns. (See Table 3 for details.)

Table (3)

Referential distance in return-pop patterns in NS-NS conversations

Conversation	I. Cls trns	II. cls trns	III. cls trns	IV. cls trns	Average cls trns
	7.00 2.91	8.50 3.40	7.26 4.78	9.82 6.11	8.145 4.30

Example 3. Return-pops.

- 3) (25) I. **Middle aged guy** lookin' like farmer clothes er...
 (26) J. Ah, **he** was wearin' a hat, dark hair like,
 ah...Hispanic....mustache ... bandanna ... **he** was
 wearing a red bandanna around his neck.
 (27) I. Was it near a road er...off in like a pasture area?
 :
 :
 :
 (42) J. Lost a couple deta' there ma be, but ah...
 (43) I. Do ...was ah...did **he** [↑] have use of a trailer or a bucket
 or something he was putting the pears into?
 (44) J. Ah..no, **he** used an apron..(1)..**he** was wearing an apron
 with a big pocket.
 (NS-NS, IV)

Of the anaphoric patterns in NS conversation 26.06% were of this type. Clancy (1980) referred to these as "interference patterns."

3. Overlap anaphoric pattern

This pattern involves two or more pronominal anaphors referring back to different referent NP's. As illustrated earlier, overlap involves highly complex contextually cohesive anaphoric ties and a similarly complex syntactic anaphoric pattern. Anaphoric overlap, composing only 8.84% of the total, was the least occurring pattern in NS-NS conversation. In terms of referential distance, it can be categorized as a sequentially distributed anaphoric pattern.

Example 4. Overlap.

- 4) (43) G. And did **the man** ever come back..(1)..into the
 picture?
 (44) H. Well the ... **the kid** ... the kid...ah...**kids** came by ...a
couple ... **three kids** I think ... also came by ...about the
 same age and **they** helped **him** pick up **his** pears. And as a
 reward for that **he** gave **them** each a pear..(2)..
 (NS-NS, II)

In the example above, two pronouns referring to two different NP's are involved in the anaphoric pattern. In this case, one of the pronouns is singular while the other is plural. Nevertheless, a potential for misinterpretation was created by two factors. Firstly, in spite of the fact that 'the man' (line 43) was the last singular NP mentioned, 'he,' 'him' and 'his' (line 44) referred to the boy on the bicycle instead. Secondly, in addition to all this, these singular anaphoric pronouns refer to a sequence, which had been closed eight turns earlier. In any case, the NS receiver was able to overcome these obstacles and interpret the anaphoric coreferentiality with no apparent difficulty. Perhaps this can best be explained in terms of the holistic contextual perception of the speech event shared by the interlocutors. Since the foundation of the conversation was the telling of a story, both interlocutors followed the sequence of events. Thus, even though "the man" was brought back into the conversation by the receiver, the fact that the boy had fallen down and spilled his pears and that the others were helping him clarified the question of reference in the mind of the receiver.

B. Anaphora distribution in NNS-NNS conversation

This portion of the study will be devoted to presenting the findings concerning the different anaphoric patterns occurring in the conversations of non-native speakers, illustrated with some examples from the collected corpus.

1. Sequentially distributed patterns

Sequentially distributed anaphoric patterns comprised 78.23% of all anaphoric patterns in NNS-NNS discourse. Referential distance for this pattern ranged from 1 to 18 clauses. Table 4 provides a summary of referential distance in NNS-NNS conversations in number of clauses and turns.

Table (4)
Referential distance in sequentially distributed patterns
in NNS-NNS conversations

Conversation	V. Cls trns	VI. cls trns	VII. cls trns	VIII. cls trns	Average cls trns
	3.59 1.02	2.89 1.52	6.77 4.42	4.34 2.63	4.63 2.39

In one instance (part of which is excerpted below), anaphoric cohesion persisted for 18 clauses over 15 turns. Nonetheless, the existence of such long distance anaphoric relations is very uncommon.

Example 5. Sequentially distributed patterns.

- 5) (25) R. **The man** who is on the....
 (26) Q. tree
 (27) R. Tree doesn't see **him** steal **his** pear and then **the boy**.....steal ... the pear...the basket of pear he put it in front of his bicycle and ride...
 (28) Q. Yeah.
 (29) R. ...the bicycle away. When **he** was riding bicycle **he** saw a beautiful girl ...uh...pass **him**. So, when **he** was looking ...uh...girl, **he** didn't see the ground.
 (30) Q. Yeah...yeah.
 (31) R So **he** crashed the stone...
 (32) Q. emmm.
 (33) R. ...and fuh...fell down...
 (34) Q. yeah.
 (35) R. ..with the bicycle and there are three children saw him when he ... fell down.
 (36) Q. yeah.
 (NNS-NNS, VII)

From the example above, it appears that a small amount of interaction is taking place. The giver is simply relating a narration at this point with little regard for the participation of his interlocutor.

A further example of sequentially distributed anaphoric patterns in NNS-NNS conversation shows similarity to those common in NS-NS conversations when interaction is guided by the questions of either interlocutor seeking unknown information.

Example 6. Sequentially distributed pattern.

- 6) (2) P. I mean **the film** does not have main-main subject.
 (3) O. doesn't have a main subject! Roughly what is **it** about then?

- (4) P. uhh...it's about ... fruit ... it's about fruits. Someone(2)....someone is picking like fruit ... apple ... not apple.
- (5) O. Yeah, is it ...how.. is it?...about how people bite fruit?... just about fruit?...
- (6) P. just about fruit.
(NNS-NNS, VI)

In the example above, speaker P posited an utterance that contained an introduction of the firstly mentioned NP "the film." Afterwards, a referential pronoun (it) was used instead to refer to the full mentioned NP in order to establish a sequential pattern of referential ties.

2. Return-pop pattern

A relatively small percentage (12.35%) of the anaphoric patterns in NNS-NNS conversation follow the return pop pattern. Referential distance between referent NP's and their pronominal anaphors ranged from 2 to 10 clauses or 1 to 7 in number of turns. Table 5 gives detailed calculations of referential distance in return-pops for NNS-NNS conversations.

Table (5)
Referential distance in return-pop patterns in NNS-NNS conversations

Conversation	V. Cls trns	VI. cls trns	VII. cls trns	VIII. cls trns	Average cls trns
	9.83 3.33	7.20 5.60	7.50 4.66	13.50 6. 14	9.50 4.93

One extreme case of return pop use was present in conversation VI. and another was found in conversation VIII. In conversation VI, the return-pop bridged a gap of 24 clauses (18 turns) back to the mention of its referent NP. Without this occurrence, the average referential distance for return-pops in conversation VI would be 3 clauses (2.75 turns). The average referential distance mushrooms to 7.6 clauses (5.6 turns) if such exceptional return-pop case was included in the calculations.

Example 7. Return-pop pattern

- 7) (6) P. Yeah, one farmer is picking at ... picking fruit and uh.....(mumble)..then
 put into basket and ...umm...and one children...**one child** ...
 maybe **he** is child of one farmer.....one farmer he ... he
 carried a ... a ... by using a bicycle and...
- (7) O. ...and suh ... suddenly uh uh he ... he **he's** looking at
 a girl.
- (8) P. Uh huh.
- (9) O. ...and he stares her and he ...he...**he** falled...fell the
 basket of fruit.
- (NNS-NNS, VI)

In the example, the receiver wanted to know what kind of fruit the boy had stolen from the tree. As we will see below, the giver did not know this information. At this point in the discourse, the sequence of pronominal anaphora referring to the boy as the topic was interrupted by ten turns of negotiation about the name of the fruit, as follows:

- (10) O. Are the fruits only apples?
 (11) P. Not apple.
 (12) O. What type of fruit then?
 (13) P. It's the first time to see that fruit.

The negotiation continued in this manner for six more turns, until the receiver was convinced that the giver would not be able to supply this information. In order to continue the flow of the conversation, the receiver produced the following utterance, containing an anaphoric pronoun, which 'popped' to the full NP last mentioned before the negotiation.

- (24) O. uh hum. Okay, what happened after the boys helped [↑]**him**?

This example of negotiation seems to support the model for negotiation proposed by Varonis and Gass (1985). Thus, in this context, the flow of discourse was indeed discontinued until the breakdown was resolved. Grosz (1977,1979), on the other hand, noticed a case of pronominal anaphora, which was identical to the case we have in the previous return-pop example. She noted that in the pushdown (the discontinuation of the flow of discourse), pronominal anaphors are independent in reference from those in the previous texts. On the other hand, pronominal anaphors after the pop (the

digression) refer back to the discourse before the pushdown. The other example of idiosyncratic occurrence of return pop pronominal anaphora with an extreme referential distance appeared in conversation VIII. An island of 28 clauses (18 turns) formed between a certain NP and its coreferential pronoun. This pronominal return referred to the only female character in the story, seeming to ensure its correct interpretation despite the introduction of several new referent NP's within the referential distance of the 'pop.' According to Fox (1987), the gender difference is important in the avoidance of ambiguity of interpretation, which may occur in same-sex pops.

3. Overlap anaphoric pattern

In NNS-NNS conversations, the overlap anaphoric pattern was the least used, just as in NS-NS conversations. It comprised 9.42% of the total number of all patterns. Length of referential distance in number of clauses and number of turns seems to follow the pattern of sequentially distributed anaphora. As we mentioned in the previous section, however, overlap anaphoric patterns ignore certain constraints on their existence. In his observations of spoken and written narratives in Arabic, Al-Kahtany (1992) noted a number of possible constraints on the distribution of similar anaphoric patterns in order to avoid misinterpretation:

1. Pronominal anaphors involved in the overlap should refer to different gender or number categories.
2. Pronominal anaphors should have different thematic relations.
3. The text should provide clues regarding selectional restrictions.

Example 8. Overlap.

- 8) (42) R **the other three boys** came came yes
 (43) Q. were over there
 (44) R. (*) came, came to **him** and **they** helped **him** to pick up
 the.... (1)... pearsand the boy gave three pears to **them**.
 (NNS-NNS, VIII)

The excerpt below contains an example of anaphoric overlap that involves coreferential relation to referents that belong to different sex groups. However, in the example below (specifically in turn 11) the interlocutor used the pronouns 'he' and 'his' referring to the boy. In this case misinterpretation could have occurred because three same sex NP's (the farmer, the man, and

the boy) were contained in the same utterance. Nevertheless, the receiver was able to observe the right referent, which was the immediately preceding NP (the boy), by relying on pragmatic inferences. As Stevenson and Vitkovitch (1986: 336) mentioned, the complete comprehension of anaphoric reference requires non-linguistic knowledge as well as linguistic information.

Example 9. Overlap

- 9) (11) N. and **the farmer** harvest the pear. So **the man** walked around the tree, but one young boy.... ..stolen a pack of pear and he ride his bike ... he go to his home probably.
 (12) M. uh huh. I see.
 (13) N. and he see.... see **the one girl** who ride a bike and **she** is.... I don't know.
She is...umm...when he see **her** he fell down with ... from his bike ... he fell down.
 (NNS-NNS, V)

Al-Kahtany (1992) noticed that in conversations among Arabic speakers, when two or more pronouns refer to a NP of the same sex in a previous text, the interlocutor linked the pronoun to the immediately preceding NP. In one conversation, misinterpretation resulted from the lack of observation of this constraint. We look forward to cross-linguistic empirical research, which could support or deny the existence of these types of constraints on same gender anaphora.

Table (6)

Anaphoric patterns in NNS-NNS conversation and number of anaphoric choices, full NP's and their anaphors in NNS-NNS discourse

	Sequentially Distributed	Return-pop	Overlap	Anaphoric pronoun	Referential NP
NNS-NNS	133	21	16	170	61
Conversation	(78.23%)	(12.35%)	(9.42%)	(73.59%)	(26.41%)

Results and Discussions

A. Length of texts in NS-NS and NNS-NNS conversations

Surprisingly, both NS's and NNS's spend a similar amount of time in their conversations handling the same communication task. The four NS-NS conversations lasted a total of 23.41 minutes, while the four NNS-NNS conversations lasted 23.33 minutes. This works out to a mean of 5.85 minutes for each NS-NS conversation and 5.84 minutes for each NNS-NNS conversation. Nevertheless, the volume of text produced by the two groups in that time is significantly different. NS's used an average of 1031 words per conversation compared to an average of 600 words by NNS's. This incongruity can perhaps best be attributed to the quality of language produced by each group and the apparent fluency in English.

NNS-NNS conversations involved many occasions of hesitation, pausing, and repetition of single sounds. Such interruptions of the main flow of conversation prolonged the time of the speech event at the expense of the actual number of spoken words. NS-NS conversations, on the other hand, have similar length but a greater number of actual spoken words. This can be attributed to various factors. Being native speakers of English, they do not face the difficulty of their NNS counterparts in trying to select the right words to express themselves (especially taking into consideration the proficiency level of the NNS subjects). Relative to the NNS's, few incidents of hesitation and repetition occur in the NS-NS discourse. In addition, NS's took longer turns: an average of 11.45 clauses compared to 9.68 for the NNS's. Finally, as one might expect, NS's produced more language per turn and per minute than did the NNS's. Tables 7 and 8 provide a comprehensive summary of all calculations.

Table (7)

A summary of total time, number of words, number of turns, number of words per minute and the mean length of turns in number of words in NS-NS Conversations

Conversation Number	Total time (in sec.)	Total words per conv.	turns per conv.	words perminute	mean length of turn in words
I.	315	1079	84	206	12.85
II.	275	903	60	197	15.05
III.	350	891	89	153	10.01
IV.	465	1249	127	161	9.83
Avg.	351	1031	90	179	11.45

Table (8)

A summary of total time, number of words, number of turns, number of words per minute and the mean length of turns in number of words In NNS-NNS Conversation

Conversation Number	Total time (in sec.)	Total words per conv.	turns per conv.	words perminute	mean length of turn in words
V.	390	678	48	104	14.13
VI.	410	489	62	72	7.89
VII.	215	509	64	142	7.38
VIII.	385	725	72	113	10.07
Avg.	350	600	62	108	9.68

B. Referential distance in NS-NS and NNS-NNS conversations

The mean length of referential distance in sequentially distributed patterns in NS-NS conversation was 3.195 clauses; in NNS-NNS conversation, 4.63 clauses. The same pattern measured in number of turns was 1.175 for NS's compared to 2.39 for NNS's. (Note: data from referential distance in overlap patterns are included along with sequentially distributed patterns since the two patterns are structurally similar and differ only operationally).

Table (9)
Referential distance in sequentially distributed anaphoric patterns
(including overlap patterns)

Type of Discourse	Referential Distance in number of clauses	Referential Distance in number of turns
NS-NS Conversations	3.195	1.175
NNS-NNS Conversations	4.63	2.39

Return pop patterns in NS-NS conversations have a mean referential length of 8.145 in number of clauses and 4.3 turns. In NNS-NNS conversations, the average length is 9.5 in number of clauses and 4.93 in number of turns. A detailed comparison is given in Table 10.

Table (10)
Referential distance of return-pop anaphoric patterns in number of clauses

Type of Discourse	Referential Distance in number of clauses	Referential Distance in number of turns
NS-NS Conversations	4.30	8.145
NNS-NNS Conversations	4.93	9.50

The salient difference in anaphoric referential distance within NNS' and NS' use of sequentially distributed anaphoric patterns is evidence for the existence of varying discourses NNS and NS initiate. A point that can be of great significance for the discourse acquisition process of cohesive ties. Probably, some incidents of communication breakdowns can be attributed to NNS' inability to observe SL discourse parameters. A skill that they might have never been exposed to in a language teaching environment which does not go beyond sentence grammar. Such difference in anaphoric referential distance between NS' and NNS' discourse may also be attributed to the acquisition process by NNS of discourse features of the target language (Ellis 2002: 45).

C. Frequency of Referent NP's and their anaphors

In this section, illustrations of the correlation between the number of referent NP's that are involved in a referential function and their pronominal anaphors in NS-NS and NNS-NNS conversations will be presented. Looking at the percentage of NP's and pronouns in both types does not reveal a great difference, however NS's used 203 more referential pronouns than NNS's in dealing with the same communication task. In addition, they used 48 more referent NP's than the NNS's (see Table 11).

Table (11)
Percentages and numbers of referent NP's and anaphors

Group	Referent NP's		Pronominal anaphors	
	%	#	%	#
NS	24.03	118	75.97	373
NNS	26.40	70	73.60	170

The above findings can be attributed in part to differences in text length. NS-NS conversations are much longer in regard to number of words (see Tables 8 and 9, above), which explains the higher frequency of both referent NP's and pronominal anaphors. Anaphors themselves constituted 9.165% of the total number of words in NS-NS conversation. In NNS-NNS conversation, they comprised only 7.07% of the total number of words in the text. Referent NP's comprised 2.89% of the words of NS's, as opposed to 2.49% of NNS's (see Table 12).

Table (12)
Referent NP's and pronouns as a percentage of total words used in conversations

Group	Referent NP's	Pronouns
NS	2.89%	9.165%
NNS	2.49%	7.07%

So, what we see above is a proportional relation between the number of referent NP's and their referents to the length of the text. In NS-NS conversation, where the text is longer, we find a higher number of referent NP's and their coreferential anaphors.

D. Distribution of Anaphoric patterns in NS-NS and NNS-NNS conversations

NS's depend 10.13% less on sequentially distributed anaphoric patterns than their NNS counterparts. This pattern, however, is the highest occurring pattern in both groups, as shown in Table 13. NS's use return-pop patterns 10.71 % more than NNS's. This difference in the percentages can be attributed to a number of factors:

1. The ability of NS's to observe linguistic and pragmatic constraints more than NNS's.
2. The potential influence of the high level of familiarity among NS subjects relative to their NNS counterparts.
3. The high level of difficulty NNS's experience in dealing with the return-pop pattern. The following evidence seems to support this hypothesis:
 - A) The existence of anaphoric misinterpretation in this pattern, especially when it appears together with an overlap anaphoric pattern.
 - B) The higher frequency of post referent NP's, which are mostly used for clarification after NNS return-pops. Post referent NP's occur 28% more after return-pops by NNS's than those of NS's, though NNS used return-pops only about 25% of the time of those used by NS.

Table (13)

Number and percentage of various anaphoric patterns in NS-NS and NNS-NNS conversations

	Sequentially distributed		Return-pop		Overlap	
	#	%	#	%	#	%
NS-NS	254	67.10	86	23.06	33	8.84
NNS-NNS	133	78.23	21	12.35	6	9.42

Overlap anaphoric pattern is the least occurring pattern in both groups: 8.84% in NS-NS conversation and 9.42% in NNS-NNS conversation (see

Table 13.) The limitation in the use of this pattern may be attributed to the highly restricted constraints inherent in the pattern which require a higher skill of interpretation.

Table (14)
Return-pops, post referents, and post referential distance

	Number of all return pops	Number of return pops with post referent NP's	Post referential distance in		Percentage of return pops with post referentNP's
			# of clauses	# of turns	
NS-NS	86	21	7.26	3.75	24.41
NNS-NNS	21	11	4.83	3.62	52.38

Table 14 shows the number of return-pop pronouns in NS-NS and NNS-NNS conversations. It also shows the number of return-pops that are followed by a referent NP and the post referential distance in number of clauses and in number of turns. Non-native speakers of English use fewer number of return-pop anaphors 21 compared to 86 used by their native counterparts. On the other hand, NNS use post referents NP's for their popped anaphors about 28% of the time more than native speakers. Such is a very significant discourse phenomenon that poses a challenge to sentence confined language teaching that pays little attention to discourse aspects of the language. NNS felt that they need to identify the referent NP for the pop anaphor they used while native speakers felt that enough background information would take care of that.

V. Conclusion

During the analysis of anaphora distribution, focus was directed to different variables in NS-NS and NNS-NNS conversations. First of all, the length of text in both groups was considered. Although the time span of the conversations was similar, NS's used an exceedingly higher number of words per minute and, as a result, produced significantly longer texts. This difference was attributed to proficiency, familiarity and other factors.

Secondly, referential distance was measured in both groups, using both the standard measure of number of clauses and number of turns. NNS's used a larger number of turns within sequentially distributed anaphoric patterns

than did NS's, and also a greater number of clauses. I was not able to give a firm interpretation of either this phenomenon or the differences in referential distance used in return-pop patterns. I have an inclination to attribute both to cases of idiosyncratic usage, i.e. the diverse cultural and linguistic background of the NNS's. An issue that requires further study against more extensive and cross-linguistically diverse data.

Thirdly, the number and frequency of referent NP's and their pronominal anaphors was calculated. NS's used many more anaphoric patterns, and consequently more referent NP's and pronouns than NNS's. The main underlying factor here was the longer texts produced by the NS's.

The concept of interaction was the fourth point discussed in the findings. NS's referred to their interlocutor's established referent NP's more frequently than NNS's. This was interpreted as indicating that NNS's spend more time in negotiation while NS's show a higher level of interaction due to difference in linguistic fluency.

The fifth and final point of this research was concerned with the distribution of anaphoric patterns in both the NS and NNS groups. In considering the frequency of each pattern for both groups, it was noted that a kind of hierarchical pattern from the most frequent to the least frequent, that is:

SEQUENTIALLY DISTRIBUTED ANAPHORIC PATTERN > RETURN-POP ANAPHORIC PATTERN > OVERLAP ANAPHORIC PATTERN

This variance in frequency was attributed to a group of influencing factors, including familiarity among the interlocutors and the inherent complexity of these anaphoric patterns. Another area I touched upon was the negotiation of anaphoric interpretation, which I feel is a topic worthy of its own independent study. As Varonis and Gass (1985) have pointed out, negotiation is a technique found most frequently in conversations involving NNS's, and it would seem to have an effect on anaphoric interpretation during interlocutors' attempts to achieve comprehension.

In this paper, I have attempted a study of anaphora in NS-NS and NNS-NNS conversation from a perspective of discourse analysis. Interesting phenomena as negotiation of anaphoric interpretation and the existence of idiosyncratic anaphoric choices call for further extensive research that will explain very much needed discourse skills that have not attracted research in

SLA studies. Findings of this research emphasize the great importance of involving SL learners in real situations of interaction where they could go into a process of internalization of discourse and pragmatic features of the target language. The language learning process has been directed towards structural features of language at the sentence level for most of the last century. More in depth research of the textual and contextual factors of discourse processing needs to be emphasized, and therefore introduced in a pedagogical form for language learners.

As a continuation of previous research in anaphoric relations, this study reveals the value of involving language learners in authentic discourse situations where information about their acquisition of discourse devices like anaphora and other cohesive devices can be observed and hence benefit the teaching of writing and speaking skills to non-native speakers. Cecle-Murcia (1998:687) realized the significance of introducing discourse into the language teaching curricula by stating that “grammar is not decontextualized or sentence-level phenomenon, but instead involves forms that are determined by discourse-related concerns”. Hinkel (2001:129-130) alluded to the usefulness of introducing effective teaching techniques that deal with text cohesion after extensive study of non-native speaker use of cohesive devices in English.

References

1. Al-Kahtany, A. H. (1992). *Anaphoric Relations in Arabic and English Spoken Narratives*. Unpublished Dissertation, Michigan State University, East Lansing.
2. Al-Kahtany, A. H. (1998/1418) "Frequency and Functions of Third-Person Zero-anaphora in Spoken Arabic and English". *Journal of King Saud University*, Vol. 10, Arts (1): 25-42.
3. Black, C. (1996). "A Backward Binding Construction in Zapotec." *Work Paper in the Summer Institute of Linguistics*, Vol. 40, 75-87
4. Carden, G. (1982). "Backwards anaphora in discourse context". *Journal of Applied Linguistics*, 18, 361-387.
5. Cecle-Murcia, M. (1998). "Discourse Analysis and Grammar Instruction". In Oaks, D. D. (Ed.), *Linguistics at Work: A Reader of Applications*. Fort Worth: Harcourt Brace College Publishers.
6. Chafe, W.L. (1980). Introduction. In Chafe, W.L. (Ed.), *The pear stories: Cognitive, cultural and linguistic aspects of narrative production*. Norwood, NJ: Ablex.
7. Choi, D. (1997) "Binding Principles for Long Distance Anaphors." *Kansas Working Papers in Linguistics*, Vol.22,1.
8. Chomsky, N. (1981). *Lectures in Government and Binding*. Foris, Dordrecht.
9. Brown, G. and Yule, G. (1983). *Discourse Analysis*. Cambridge: Cambridge University Press.
- a. Clancy, P.M. (1980). *Referential Choice in English and Japanese Narrative Discourse*. In Chafe, W.L., (Ed.), *The pear stories: Cognitive, cultural and linguistic aspects of narrative production*. (pp. 127-199). Norwood, NJ: Ablex.
10. Ellis, R. (2002). *Second Language Acquisition*. Oxford: Oxford University Press.
 - a. Fillmore, C.J. (1983). *Santa Cruz Lectures on Deixis*. Bloomington: Indiana University Linguistics Club.
 - b. Fox, B. (1986). "Local Patterns and General Principles in Cognition Processes: Anaphora in Written and Conversational English". *Text* 6, 1, 25-51.
11. Fox, B. (1987). *Discourse Structure and Anaphora*. Cambridge: Cambridge University Press.
12. Fox, B. (1988). "Morph-syntactic Markedness and Discourse Structure". *Journal of Pragmatics* 11: 359-375.
13. Givon, T. (Ed.) (1983). *Topic Continuity in Discourse*. Amsterdam: Benjamins.
14. Grosz, B. (1979). "Utterance and Objective: Issues in National Language Communication". *Technical Note #185*. Menlo Park, CA: Artificial Intelligence Center, SRI International.

15. Grosz, B. (1977). "The representation and Use of Focus in Dialogue Understanding". Technical Note #151. Menlo Park, CA: Artificial Intelligence Center, SRI International.
16. Halliday, M. and Hasan, R. (1976). *Cohesion in English*. London: Longman.
17. Hatch, E, and Long, M.H. (1980). *Discourse Analysis, What's That?* In Larsen-Freeman, D. (Ed.), *Discourse Analysis and Second Language Research*. Rowley, MA: Newbury House.
18. Hinkel, E. (2001). "Matters of Cohesion in L2 Academic Texts". *Applied Language Learning*, Vol. 12, 2: 111-132
19. Houghton, D. & Hoey, M. (1982). "Linguistics and Written Discourse: Contrastive Rhetorics". *Annual Review of Applied Linguistics*, 3, 2-22.
20. Hirst, W. & Brill, G. (1980). "Contextual Aspects of Pronoun Assignment". *Journal of Learning and Verbal Behavior*, 19, 168-175.
21. Levinson, S. (1991) "Pragmatic Relations of the Binding Conditions Revisited." *Journal of Linguistics*, 27: 107-162.
22. Levinson, S. (1983). *Pragmatics*. Cambridge: Cambridge University Press.
23. Makee, C. (1992). "A Comparison of pronouns and Anaphors in Italian and English acquisition". *Language acquisition*, 2 (1): 21-54.
24. Mithun, M. (1990). "Third Person Reference and the Function of Pronouns in Central Pomo Speech". *International Journal of American Linguistics*, 56 (3): 361 –76.
25. Morgan, J.L. and Sellman, M.B. (1980). *Discourse and Linguistic Theory*. In Spino, R.J., Bertram, B.C., and Brewer, W.F. (Eds.), *Theoretical Issues in Reading Comprehension*. Hillsdale, NJ: Lawrence Erlbaum Associates.
26. Payne, T. E. (1988). "Referential Distance and Discourse Structure in Yaguba". *Studies in Language*, 12 (2): 245-392.
27. Pollard, C. & Ivan A. S. (1992) "Anaphors in English and the Scope of Binding Theory." *Linguistic Inquiry*, 18, 413-444.
28. Sanford, A. & Garrod, S.C. (1981). *Understanding Written Language: Explorations in Comprehension Beyond the Sentence*. Chichester: Wiley.
29. Schwartz, J. (1980) "The Negotiation for Meaning: Repair in Conversations Between SSL's of English". In Larsen-Freeman, D. (Ed.), *Discourse Analysis in SL Research* (pp.??). Rowley, MA: Newbury House.
30. Scollon, R. and Scollon, S. (1984). "Cooking it up and Boiling it Down: Abstracts in Athabaskan Children's Story Retelling". In Tannen, D. (Ed.), *Coherence in Spoken and Written Discourse* (pp. 173-195). Norwood, NJ: Albex.
31. Shillcock, R. (1982). "The On-line Resolution of Pronominal Anaphora". *Language and Speech*, 385-398.
- a. Stevenson, R. and Vitkovitch, M. (1980). *The Comprehension of Anaphoric Relations*. *Language and Speech*, 29,

32. Tannen, D. (1984). "Spoken and Written Narratives in English and Greek". In Tannen, D. (Ed.), *Coherence in Spoken and Written Discourse*, (pp. 21-44). Norwood, NJ: Albex.
33. Vandebrook, A., Schlue, B. and Campbell, C. (1980). "Discourse and Second Language Acquisition of yes/no Questions". In Larsen-Freeman, D. (Ed.) *Discourse Analysis and Second Language Research* (pp. 56-75). Rowley, Mass: Newbury House.
34. Varonis, E. and Gass, S. (1985). "Non-native/Non-native Conversation: A Model for Negotiation of Meaning". *Applied Linguistics*, 6, 71-90

العلاقات العائدية للضمائر في محادثات متعلمي اللغة الإنجليزية ومتحدثيها الأصليين

عبدالله هادي عبدالله القحطاني

قسم اللغة الإنجليزية- كلية اللغات والترجمة - جامعة الملك خالد
أبها - المملكة العربية السعودية

الملخص :

تتبع هذه الدراسة المنهج التجريبي التطبيقي في جمع المعلومات ومن ثم تحليلها بهدف كشف الأساليب التي يقوم من خلالها متعلمي اللغة الإنجليزية ومتحدثيها الأصليين بالتفاوض حول الترابط النصي في محادثاتهم من خلال التعليق العائدي للضمائر، وذلك لمعرفة (١) نسبة تكرار استخدام النماذج المختلفة للعلاقات العائدية للضمائر (تسلسلي، فجائي، متداخل) في محادثات الضريقين. (٢) متوسط تباعد الضمائر العائدي عند الضريقين. (٣) تناسب الاختيارات العائدية، ومن ثم تحليل التغيرات ذات الأهمية النصية والسياقية. وبما أن فرص استخدام نماذج التعليق العائدي المختلفة متوافر للضريقين، فإن النتائج قد أظهرت اختلافات جوهرية في نسبة تكرار واختيار نوعية العائد ومتوسط التباعد بتلك النماذج العائدية. وقد تم إحالة تلك الاختلافات إلى مجموعة من العوامل أهمها:

- حجم النصوص اللغوية التي استخدمها كل فريق.
- تفاوت خلفيات متعلمي اللغة الإنجليزية المشاركين في الدراسة، اللغوية والثقافية.
- ضعف قدرات متعلمي اللغة الإنجليزية في مراعاة الضوابط النصية والسياقية في محادثات اللغة الإنجليزية.

وبهذا فإن الدراسة تؤكد أهمية إدراج تدريس العوامل النصية مثل العلاقات العائدية للضمائر وأساليب الترابط النصي والسياقي الأخرى ضمن مناهج تعليم اللغة الإنجليزية كلغة ثانية.