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Anaphors in Casual and Controlled Talk groups of Iranian EFL Learners

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Abstract

By relying mainly on the accessibility approach to anaphora, this article intends to analyze the types, distributions and retrieval of anaphors in two forms of spoken discourse: casual and controlled talk. For the specific purposes of the study, twenty sophomore Iranian students were randomly selected to conduct the talks. The subjects were divided into two groups of casual and controlled talk. According to the settings and adopted topics, the overall casual talk group was further divided into two groups of dorm and academic talk. In the end, it was observed that as the talk situations vary, types, frequencies, distances, retrieval qualities and thematic structure (patterning) of anaphors undergo dramatic changes too. Further analyses of the obtained data show that the number of pronominal anaphors is by far more than NP anaphors in dorm casual talk whereas in academic casual talk the number of NP anaphors exceeds that of the former talk groups. However, the distribution of anaphors in the performance of controlled talk groups has shown to be more moderate with regard to the types of anaphors used in it. Overall, the distributional patterns of various anaphoric devices in different talk situations are considered to be a function of the speakers' evaluation of the cognitive states of the listeners/addressees. Average distances and frequencies of the different types of zero, pronominal, and NP anaphors have also been shown to undergo dramatic changes as talk situations vary.

Keywords: 1. Anaphora 2. Casual Talk 3. Controlled Talk
4. Distribution 5. Topic 6. EFL Learners 7. Distance 8. Discourse.

1. Introduction

The importance of anaphora in discourse studies is to the extent that it is

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recognized as being central to all discourse studies (Hendricks, 1976; Shokouhi & Kamyab, 2004). It is also strongly tied to contextual, socio-cognitive, psychological and linguistic factors. For this reason, most of the researchers working in this field emphasize that only multi-strategy approaches which take all the aforementioned factors into consideration must be sketched out in order to set comprehensive rules for the resolution of anaphoric devices in texts.

Broadly construed, anaphors are linguistic forms that must be anteceded in a discourse. By the contributions of such approaches to anaphora as the 'distance approach' (Givon, 1983; Ariel, 1990), the 'thematic approach' (Tomlin, 1987; Fox, 1987), the 'focus approach' (Bosch, 1983, 1988) as well as the 'theory of information flow' (Chafe, 1987), also to be highlighted in the current study, such linguistic phenomena as the occurrence of successive pronominal or nominal expressions which had formerly been interpreted as being anomalous and irregular according to the rigid rules of the 'binding' (Chomsky, 1981) are no longer unexpected and surprising.

2. Background

2.1. Anaphora and the accessibility approach

This approach, among other famous approaches to anaphora like 'topic continuity' (Givon, 1983), 'focus' approach (Grosz & Sidner, 1986) and 'information flow' (Chafe, 1987, 1994), deals with the degree of recoverability of various referring expressions. Ariel (1990) presented a hierarchy of the referring elements such as zero anaphors, pronouns and NPs as well as their other various forms. In his approach, zero anaphora stands as the highest accessible marker followed by different pronominal forms and ended with various NP forms. Zero anaphora in English is mostly used in conjoined clauses, as in 'John came in and \emptyset showed us a picture' where zero is represented by \emptyset symbol, whereas in 'John came in and he showed us a picture', instead of zero, the pronoun 'he' is used to refer to 'John'. Further, in 'Tony Blair gave a speech today. The prime minister specified the details of his plan to', the NP 'the prime minister' is taken to refer to 'Tony Blair'.

Apart from the distance and space between anaphoric elements, there are the intervening elements and the saliency of the referents that are important to Ariel. Epstein (2002), Kang (2004) and Karlz (2005) believe that it is the space that anchors and eases the interpretation of all deictic and referential relations. It is canonically identified with the speakers' reality (Bean, 2004) but as the discourse unfolds, alternate base spaces may be set

up. From this may evolve a lattice of spaces (Nouwen, 2003). Anyway, an anaphor is more easily recoverable or accessible if it has the relative space for its identifiability and fewer intervening factors within that space domain. This is what these famous theories indicated above share. Aside from the spatial configuration demarcating the referential expressions, which is crucially significant in determining the type of anaphor used in a specific linguistic environment, there is the culture effect which is of a relative magnitude in the resolution of anaphora.

In a study by Duranti (1984) that bears on the role of culture in constructing and categorizing human interaction, he presents the notion of 'projectability' in retrieving and resolving an anaphor. This signifies the ability to distinguish a specific form of anaphor based on the current moment of talk to the future unfolding of the talk. Nevertheless, it is not only the culture but the type of genre that is relevant in specifying the referential element (see the discussion by Fox in section 2.1 below).

2.2. Anaphora in spoken discourse

A new trend of tracing anaphors in spoken discourse began by such studies as Fox (1987) on how anaphors are patterned in talk sequences. This movement largely dispenses with the rigid rules of 'binding' which proved to be inappropriate in accounting for all instances of the occurrence and distributions of anaphors; especially in natural talk. Prior research on anaphora in written discourse mostly attended to the nature and coherence making properties of these elements and fell short of justifying their distributional patterns in spoken language. However, by resorting to the new approaches to anaphora, the occurrence and distributions of these elements could very well be accounted for in spoken discourse.

Fox (1987) examined anaphoric resolution in three different genres. Believing that a text is made up of some propositions which themselves contain some central or 'nucleus' and the revolving elements known as the 'adjuncts', she found that pronominal forms reveal that a current referent is in active and controlling position whereas a full NP manifests that the current referent is outside these units. Fox eventually decided that not a single rule can be drawn for all anaphors in different genres. Her chief observation in her data analysis was that a 'return pop' anaphor appears once and again in conversation as a sign or indication to the hearer that the episode is not yet closed. However, the picture is not that optimistic for Palomar and Martinez-Barco (2001). They presented an algorithm rather than a hierarchy for NP antecedents to prove their claim that anaphora resolution requires numerous sources of information in finding proper antecedent for a referent. These sources can be linguistic, discourse/dialogue

structure information, or a hybrid combination. But what they eventually arrived at was not that different from Fox. They concluded that over 95 percent of antecedents were located in the proposed space.

To further the investigation within and beyond the boundaries of an episode to find out how different anaphors are distributed, Tomlin (1987) marked off the episodic boundaries through a laboratory experiment carried out on his subjects. He observed that nominals were appropriate candidates for assigning the episode boundaries whereas pronominals were mainly involved in marking the internal structure of episodes. However, these results are not absolute and there may be some exceptional cases where nominals are used within episodes and pronominals are utilized across episode boundaries. These exceptional cases of anaphoric distribution, as Tomlin argues (1987, p. 477 & Tomlin, 1990, p. 165), are mainly for the sake of “ambiguity resolution”.

The function of referential expressions and connectives as segmentation markers has also been demonstrated in the literature of discourse. Speakers refer to already mentioned entities using numerous linguistic devices like zero anaphora (ellipsis), pronouns, nouns, among other things (Givon, 1983). Among the various factors determining the author's choice of a given anaphoric device, the presence of an episode/paragraph break is very important; authors use devices that are more explicit than needed when there is a discourse unit boundary (Fox, 1987; Tomlin, 1987).

By analyzing the occurrence of anaphors with respect to their relative distances in texts, Givon (1983) and Ariel (1990) conclude that pronouns or zero anaphors occur in discourse situations where there is little distance to the antecedents. In other words, “a pronoun or zero anaphor is most likely to occur when the distance between an entity and its last mention is small” (Givon, 1983, p. 20). In this situation, the entity referred to by these anaphoric elements remains topical (i.e. available in the discourse registers of the speaker). But when the distance between the two mentions of an entity is large, less explicit NP anaphors are normally used. In a similar vein, Poesio and Dieugenio (2001) reiterate that a pronoun is used to refer to a person or thing if there is a previous mention of that person or thing in a proposition that is ‘active’ or controlling; otherwise a full NP is preferred.

Much recently, the cognitive theory of information flow which has acquired due attention in discourse studies by being widely resorted to is taken advantage of. Undoubtedly, the leading figure in the field is Chafe (1987, 1994) who first presented this theory and applied it to his experiments. Information flow is the process of activation and deactivation of given, accessible and new linguistic concepts (Chafe, 1987) which are raised within intonation units, chiefly resembling clauses. Chafe further

equals these three concepts with the three activation states of 'active', 'semi-active', and 'inactive'. An active concept is the one that is currently lit up, a concept in one's focus of attention. A semi-active concept is one which is in a one's peripheral consciousness, a concept of which a person has a background awareness, but which is not being directly focused on. Finally, an inactive concept is one that is currently in one's long-term memory, neither "focally nor peripherally active" (Chafe, 1987, p. 23). Givenness in terms of activation, therefore, implies the assumption of different degrees of 'givenness'. In sum, this theory holds that "in spoken discourse any utterance is produced after a very short pause which indicates the amount of time consumed to preplan the utterance" (Shokouhi & Kamyab, 2004, p. 53).

Chafe's conception of information flow is interesting in that he concentrates on only the major types of anaphora in his experiments, that is NPs (all in one category) and pronouns as well as zero anaphora and disposes of the rest whose occurrences are not considerable. However, the complication in his theory (Shokouhi, 2000; Shokouhi & Kipka, 2003) is that it would sometimes be hard to differentiate the different consciousness types especially with respect to prosodic features which in turn may lead to misconfiguration and/or misinterpretation of various active vs. inactive states of mind. Moreover, the theory is criticized (Shokouhi, 2000) for being somewhat narrow for it chiefly relies on the cognition process and little on the interaction process. For the same very reason we chose to adopt part of Chafe's theory which identifies the linguistic forms of NPs, pronominal forms and zero and to dispense with the other active/inactive part and instead opt for Ariel's 'accessibility' theory which is somewhat less conducive to misinterpretation. On the other hand, since in Ariel's approach some pronominal forms such as unstressed and stressed forms and many NP forms like left and right dislocations (e.g. 'Beans, I like!' and 'Wherever he went, John was always happy' respectively), full proper names or full name plus identifier (e.g. 'Mr. Smith, the manager') have rare occurrences, we decided to consider the basic and the more frequent elements: zero, pronouns and NPs.

2.3. Casual and controlled talk

A glimpse at any piece of spoken text for the purpose of macro-structural analysis will yield a purposeful behavior directed to accomplish a linguistic activity (Eggins, 1994). So, in this overall classification, any piece of language has its special 'genre' or 'context of culture'. On the other hand, it is widely accepted that the components of context of culture encompass those of situation or 'register'. Therefore, any change in the variables of

register including topic, participants relations, and the mode of language (channel of communication) can bring about new changes to the shape of the language manifested in the context of situation. In this study, for the most part, we deal with the latter variable of mode which is manifested through casual and controlled talk.

Indeed it is 'genre', 'register' and 'language relationships' which determine the quality of interactions in different occasions. On this ground, casual talk is normally recognized as being interactive, face to face, spontaneous, dynamic, open-ended and lexically sparse whereas controlled or formal talk is non-interactive, not face to face, not spontaneous, monologic, context-independent, closed and lexically dense. Another distinguishing point between these two styles of spoken discourse is the amount of nominalization. Eggins (1994) states that nominalization increases the degree of packedness of a text. This packedness is less for casual talks as compared to controlled talks. As a result, the number of clauses or intonation units in controlled talk is inevitably less than those of casual talk samples.

Overall, what we deem relevant here is that most of the studies done on anaphora do not cover a wide area of casual settings. For this very reason, we decide to adopt a different setting with the hope that the results might reveal a different outcome. To this end, casual talks in various forms including individual talk groups, dialogue and multiparty conversations are recorded. One further setting is the recording in a dormitory condition which we label as the 'control talk group'. This situation is different in that most of the students living in dormitory, we think, would approach the tracking of referents differently from other situations and can yield different results accordingly. Yet, recognizing the fact that familiarity of students with one another might produce a different result, we divided this into a narrative talk group and an academic one hoping this differentiation would reciprocate for any loss in any of the two situations. It is the academic situation, after all, which requires a more formal type of speech than the narrative situation.

Moreover, since not many researchers have been engaged in tackling referent tracking in foreign language context, this study is a step toward revealing some of the problems the Iranian speakers learning English encounter. One of the fundamental studies in this area has been conducted by Tomlin and Pu (1991) who although did not adopt a particular approach to the analysis of their data came up with interesting findings. We feel the present study can fill up some of the breaches in the studies on anaphora methodologically and furnish the teachers with insights to pedagogically help their students learn about the tracking system.

2.4. Statement of the problem

Anaphora resolution has proven to be a very complicated problem, particularly when considered in spoken language. Because of its complexity, no single approach or theory that can predict all occurrences of anaphoric types is available. The strategies that different speakers utilize to face anaphora have been diverse. Besides its diversity and complexity in native contexts, little research has been carried out to highlight the occurrences and the complicatedness of anaphora among second or foreign language speakers. This gap was encouraging enough for us to embark on the issue with respect to foreign language setting in the Iranian context.

Furthermore, since the focal point of this study is on the Iranian learners of English and little has been carried out on Persian referent tracking system, the present focus is significant in that it will shed light on some of the Persian features in this regard. Persian can be considered a pro-drop language since it can omit pronouns in many unidentified discourse contexts. In this respect, the language behaves differently from English. It is also unlike Chinese type of languages since these languages do not use pronouns; rather it is the frequent use of zero anaphors which makes them stand out so differently from many other languages. Persian seems to enjoy somewhere between this continuum (Shokouhi & Kamyab, 2004) and little exploration has been made with respect to the behavior that Persian can manifest in different contexts. Therefore, the intention in this study is to reveal how this language will affect its users when conversing in a language system whose referent tracking mechanism is different.

2.5. The present study

In this study we intend to analyze the type, distribution and retrieval of anaphors in two versions of spoken discourse: casual and controlled talk. As such, the current study tries to account for the behavior and distributions of anaphoric devices by resorting to the mainstream of the approach of 'theory of information flow' which discusses many parametric features outlined in other approaches like the 'accessibility' approach, the 'focus approach', and the 'thematic approach'.

The main issues that are under consideration in this article are the influence of context and modes of communication on the distributions, linguistic shapes (i.e. zero, pronominal, and NP), accessibility degrees as well as the relative distances of anaphors in casual and controlled talk. It also aims to show how different distributions of anaphor types in given talk situations correlate with the discourse function of the segment in which those anaphoric devices occur.

3. Methodology

3.1. Subjects

Subjects involved in this study were 20 EFL male students studying English at their third and fourth years. They were randomly selected from among fifty junior and senior students aged between 18 to 22. More important than the number of subjects is the number of dialogues produced by them both quantitatively and qualitatively. Hundreds of dialogues, both two-party dialogues and multi-party ones, were gathered under different situational circumstances. It is worth noting that the scrutiny of transcribing all this data can sometimes take up a few months.

To avoid the adverse effects of gender differences on the results of the study, only male students were employed to perform the tasks. For the purposes of the study, they were divided into four groups of two subjects, two groups of four subjects, and four individuals. For the ease of analysis, the groups of two and four will respectively be called 'dialogue' and 'multiparty' talk groups in the rest of the study.

These sixteen subjects, i.e. members from dialogue and multiparty talk groups, were classified as the casual talk group and the remaining four individual subjects as the controlled talk group.

3.2. Theoretical framework

Considering the nature of incumbent study which aims at determining the distribution and frequency of anaphors in spoken discourse, the prime intention is that it is an explanatory study in that the level of control and explicitness of data are low in it (Seliger & Shohamy, 1989). As such, no prediction or hypothesis may be made with regard to the type and distribution of the anaphoric elements. As a result, the theoretical frame adopted for the analysis of anaphors in this study has mainly been derived from Ariel's (1990) classification of the factors influencing the accessibility or selection of the anaphoric elements. The logic behind adopting this frame lies in the fact that many major factors pointed out earlier by seminal studies in this area (e.g. Givon, 1983 and Chafe, 1987, 1994) can be traced in this model. The first and foremost is the space or distance between an anaphoric element and its antecedent calculated by counting the number of intervening factors. Another chief factor is the salience or prominence of the referents in question. Lastly, it is the thematicity or the ways in which anaphoric elements are patterned or distributed in different samples of talk. Moreover, as mentioned earlier in the review section, Chafe's (1994) idea has also been very inspiring to the selection of the linguistic forms in this study.

3.3 Materials and procedures

As the study includes 'dialogue', 'multiparty', and 'individual' talk groups, the first two dialogue and multiparty groups participated in performing the 'casual talk' samples and the four individual speakers did the 'controlled talk' samples. The criteria for classifying students' talk into casual and controlled groups are mainly register bound notions of topic, participants roles and mode of language or channel of communication (Eggins, 1994).

In the first stage, the four casual talk groups in form of dialogue discuss favorable things in a dormitory setting, and the two multiparty talk groups discuss two linguistic matters in an academic setting. It has to be noted that the topics of discussions were selected by the speakers themselves. In the performance of these talk groups, nothing was prepared beforehand and the sole purpose of talk was communication. Each group's talk lasted for five minutes; a total of thirty minutes. All voices were carefully recorded while the subjects were speaking.

After doing with the casual talk groups, the four individual speakers in the controlled talk group performed a speech. Two of these individual speakers were assigned to retell stories (narrative controlled talk) and the other two were asked to explain academic matters (academic controlled talk). By academic, we mean topics which revolve around their curricular subjects. These speakers totally talked for twenty minutes. However, unlike the casual talk groups, speakers in this format arranged their talks in somewhat formal English.

After recording all voices in casual and controlled talk groups, the analyses which included types, frequencies, and changes of anaphors in different talk samples along with subjects' probable troubles in retrieving the antecedents of anaphors began. Furthermore, the strategies used by speakers in each stage of talk to help addressees retrieve the referents are discussed below.

3.4. Data analysis

Due to the explanatory nature of the study, descriptive statistics seems the most efficient means of measuring the distribution and frequency rates of the referring expressions. The descriptive statistics mostly used here are frequencies, central tendencies, and percentages. As maintained by Seliger & Shohamy (1989), these statistical measurements are extremely reliable in explanatory studies and further offer the quickest and fastest results. In addition to the frequency of the referential types, the average amount of distance between them, the total number of intervening clauses, the patterns of anaphoric distribution, the average number of subtopics and the

relationship between various anaphoric devices in each talk situation are considered.

3.5. Significance of the study

Overall, it is to stress that not many studies have been conducted on EFLs' spoken language. This study is not only a step toward fulfilling this gap but also purport to provide a picture of how this spoken language can be behaviorally different as their contexts change. As we will see below, the behavior of speakers in the selection of different anaphoric expressions varies as different oral situations arise. It is further this particular part of our methodology which makes it somewhat unique to other similar studies.

4. Results

4.1. Distribution of anaphors in dorm casual talk

Among different anaphoric types of zero, pronominals, and NPs within casual talk situation, pronominals are the most prominent in terms of the frequency of occurrences followed by zero and NP anaphors respectively. The average distance of pronominal and NP anaphors to their referents or last mentions has been calculated to be 10.6 intonation units (IUs). When compared with academic casual talk and controlled talk, it became apparent that this distance is the highest average distance of all. The great discrepancy between the highest and average distances of anaphors in itself testifies to the imbalanced distribution of distance in dorm casual talk.

The average frequencies of pronominal, zero, and NP anaphors for dorm casual talk were found to be 47, 15, and 13, respectively. These average frequencies have been drawn from as many as 320 intonation units. As the average total number of anaphors in these three samples of casual talk has been estimated to be 75, the expected frequency for each of these anaphors becomes 25. Expected frequency for each of these three types of anaphors is yielded by dividing the total sum of all the observed frequencies by the number of the investigated anaphors, i.e. 3 (zero, pronominal and NP anaphors), in each talk sample. Moreover, deviations from or tendencies towards the expected frequency rates calculated in this study are decisive in showing how much an anaphor is prominent in a specific talk situation. In the first step, checking the observed frequencies of zero, pronominal, and NP anaphors against their expected frequency rates in dorm casual talk yielded a chi-square of 2.66. This value, in turn, shows that there is a significant difference in the distribution of pronominal and NP anaphors in dorm casual talk (i.e. 0.043; $p < 0.05$, see Table 1 below).

Table 1: Frequency and distributional characteristics of anaphors in dorm casual talk

Group	Anaphors	Average frequency	Expected frequency	Talk coverage	Average Distance (per IU)	Highest distance	Subtopics
Dialogue casual talk	Zero	15	25	0.050	10.6	22.5	10.5
	Pronominal	47	25	0.97			
	NP	13	25	0.056			

4.2. Distribution of anaphors in academic casual talk

It was observed that the distribution of anaphors in these talk samples is quite different from that of the dorm casual talk. The most noticeable difference lies in the dramatic increase in the number of NP anaphors in academic casual talk. Unlike dorm casual talk groups which had a few NP anaphors in their performance, this amount is nearly four fold in the case of academic casual talk groups. On average, 45 mentions of these anaphors were found in these talk groups. On the other hand, the average number of pronominal anaphors stands at 31 which shows that pronominals are as many as 16 instances fewer than their respective quantities in the performance of the first talk groups. The number of zero anaphors in these talk samples declined to 5 which is less than that the dorm casual talk samples by 10 instances. In terms of frequency, zero anaphors are even fewer than NP and pronominal anaphors in academic casual talk. Meanwhile, a high correlation of 0.83 was achieved between the three types of anaphors in the performance of the two multiparty casual talk groups which points to the even distribution of anaphors in academic casual talk. To illustrate the point and to show that how frequently NPs are employed in such contexts, the following excerpt from one of our sample talks can be revealing (the NPs are underlined). Although it is true that some NPs like the first mentions are inevitable, many others could have been replaced by pronominal forms.

Semantics is different from pragmatics in terms of meaning. In pragmatics contrary to semantics a kind of invisible meaning is attended to. It is not directly mentioned in language and must be inferred by the speakers and hearers. Pragmatics is not easily achievable in language. Pragmatics needs complete attention to what is going on in the mind of the speakers. So pragmatics introduces a more sensitive side of meaning and behavior in words. (Taken from part of Talk sample no. 5 in our data).

The expected frequency for these talk groups was set at 27 which indicates that the overall number of anaphors in these talk samples is more

than that of the first talk samples. When the obtained frequencies of zero, pronominal, and NP anaphors are compared with their expected frequency rate which was set at 27, a chi-square of 3.67 was yielded. As this value lies within the critical values of chi-square (i.e. 0.003; $p < 0.05$), there is a significant difference in the distribution of anaphors in academic casual talk.

In the end, the average distance of pronominal anaphors from their antecedents was seen to be very short in academic talk groups. It is almost one-tenth of the former talk groups which stands at 3.5 IUs. When compared with other talk groups, this distance comes up to be the least. The following table presents the obtained results in academic casual talk.

Table 2: Frequency and distribution of anaphors in academic casual talk

Group	Anaphors	Frequency	Expected frequency	Talk coverage	Average distance (per IU)	Highest distance	Subtopics
Multiparty casual talk	Zero	5	27	0.052	3.5	5	3.5
	Pronominal	31	27	0.48			
	NP	45	27	0.60			

To further clarify the distributional characteristics of zero, pronominal, and NP anaphors in the performance of these talk groups, their relative proportions are illustrated in the following pie chart.

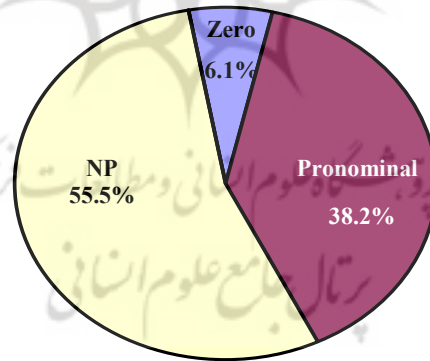


Figure 1: Distribution of anaphors

4.3. Anaphors in narrative and academic controlled talk

The talk samples in narrative controlled include the subjects' performances in orally reproducing two stories in controlled talk groups. Subjects involved in these groups set to narrate stories in a formal way.

Firstly, analyses of narrative controlled talk reveal that the average frequency of NP anaphors is more than that of dorm casual talk and less than academic casual talk; standing at an average of 25. This figure was

found to be 42 for pronominal anaphors and 9 for zero anaphors, none in clause initial positions. As a result, the expected frequency for each type of these anaphors in narrative talk samples was 25.3.

Furthermore, there doesn't seem to be any significant differences in the distribution of pronominal and NP anaphors in narrative controlled talk samples. Indeed, the relative difference observed between the means of NP and pronominal anaphors in these talk samples was set at 0.093 ($p \geq 0.05$).

Finally, the average distance of pronominals to their antecedents in these talk samples was 3.5. This relative short distance is in direct relationship with the relative increase in the number of NPs which further narrows down the overall distance. This lack of optimum distance in turn restrains the generation of a great amount of topics as observed in dorm casual talk. The obtained results in academic casual talk can be more succinctly shown in the following table.

Table 3: Frequency and distribution of anaphors in narrative controlled talk

Group	Anaphors	Frequency	Expected frequency	Talk coverage	Average distance (per IU)	Highest distance	Subtopics
Narrative controlled Talk	Zero	9	25.3	0.087	4.5	6	7.5
	pronominal	42	25.3	0.52			
	NP	25	25.3	0.45			

The second classification of controlled talk in this study includes two academic controlled talk groups. Unlike the behavior of anaphors in casual talk performance, there seems to be some symmetry in the arrangement and distribution of anaphors in academic and narrative controlled talk samples. In other words, the overall frequency of anaphors in the performance of these talk groups is like those of the narrative controlled talk groups. That is, pronominals are posed as the most frequent anaphoric devices and are followed by NP and zero anaphors. The average frequencies of pronominal, NP, and zero anaphors in these talk samples were 38, 26, and 7 respectively. These statistics are similar to narrative talk groups in terms of the obtained ranks of these three anaphors. Unlike the former casual talk groups which showed low correlation rates, a high within-group correlation of 0.81 was observed between these two controlled talk groups. This high correlation is in turn an index of high symmetry between the number and types of anaphors in the two groups of controlled talk.

The expected frequency for NP, pronominal and zero anaphors in these talk samples was found to be 24. It was observed that pronominal and NP anaphors are respectively higher by 14 and 2 mentions which shows that

there must be a significant difference in the distribution of these anaphors. The exact value of this difference was 0.029 ($p < 0.05$). Like previous talk samples, zero anaphors were scarcely used here; that is, they are as many as 17 occurrences below the expected frequency, which was calculated to be 24.

Table 4: Frequency and distribution of anaphors in academic controlled talk

Group	Anaphors	Frequency	Expected frequency	Talk coverage	Average distance (per IU)	Highest distance	Subtopics
Academic controlled Talk	Zero	7	24	0.081	5.5	8	8
	pronominal	38	24	0.54			
	NP	26	24	0.46			

5. Discussion

A brief look at the distributions of anaphors in the 'Results' section reveals that there exists a significant asymmetry in the frequencies, types and proportions of various anaphoric devices in different talk groups. This asymmetry is more prominent in the distributions of pronominal and NP anaphors. These two anaphoric devices repeatedly exceed each other in terms of frequency in different talk situations. In this part of the study, the performance of casual and controlled talk groups in terms of the 'frequency', 'distance', 'accessibility' and 'distributions' of various zero, pronominal and NP anaphors are compared and contrasted.

5.1. Pronouns without textual antecedents

A phenomenon that seems to be peculiar to the performance of the dorm casual talk groups is the occurrence of pronouns without antecedents or the so-called 'exophoric pronouns'. As pronouns point to the instances of 'given information' (Chafe, 1976, 1987; Brown & Yule, 1983), they are expected to be highly familiar to the speakers and hearers when they are raised in talk. In case of 'exophoric pronouns', it is evident that the speaker uses them as carrying the information which is already presupposed by the hearer/addressee. Their accessibility is to the extent that in three cases they made the first mentions of referential elements in the 'theme' or 'beginning' positions within IUs. Indeed, they take on the role of 'topic elicitors' (Button & Casey, 1994, p. 167). Then they perform the role of talk maintainer devices which are used to keep on the flow of topics in the performance of dorm talk groups. Here, what is required in the interpretation of exophoric pronouns is pragmatic presupposition. That is, it is "defined in terms of assumptions the speaker makes about what the hearer

is likely to accept without challenge” (Brown & Yule, 1983, p. 29). In this situation, it is no more difficult for the parties involved in talk to interpret these exophoric pronouns as they constitute part of their shared knowledge and experiences. It has to be noted that in the case of our samples in dorm casual talk, these exophoric pronominals are treated by the speakers and hearers as elements setting common mental grounds.

5.2. Pronominal, zero anaphora, and NP anaphors in casual and controlled talk

The prevalence of pronominal anaphors is significant in dorm casual talk samples, especially when they are compared with zero and NP anaphors. In these talk samples, pronominal anaphors are typically used to refer to given entities and are mostly uttered in low pitch. This goes with Chafe’s (1976, p. 31) statement that “pronouns are phonologically and lexically attenuated”. The attenuation accompanied by low pitch of pronominals in these talk groups is mostly because of the prominence and explicitness of their referents in the mind of the speakers. In this respect, Brown and Miller (1991, p. 345) argue that zero anaphors, pronouns, and other “cross-reference expressions represent given information which is typically assumed or not referred to at all”. As such, the conclusion one can arrive at would be that most of the information presented in dorm casual talk samples is ‘given’ or ‘assumed’ for the speakers and, for the most part, is codified through pronominal and zero anaphors.

Contrary to dorm casual talk samples where NP anaphors had a meager presence, they can be frequently spotted in academic casual talk samples. In these samples, NPs are typically used to refer to new or less accessible entities and are generally uttered in high pitch. It is also observed that even excessive repetitions of nominal elements do not make them ‘prominent’ or ‘given’ for the parties involved in the talk. In this regard, Chafe (1976), Brown and Yule (1983) and Brown and Miller (1991), among others, maintain that new information is characteristically manifested in language through full NP forms. Given this, scientific and relatively difficult nature of topics for discussion in academic settings which bring in ‘new’ states of information seem to create situations where more nominalization would be expected in these talk sequences. Furthermore, it has been noted that foreign language learners prefer NPs rather than pronominals or zero anaphora to maintain the continuity of their discourse (Tomlin & Pu, 1991 & Tomlin, 1994) due to the fact that they cannot make sure of the momentarily progress of their interlocutors’ state of consciousness, hence appealing to NPs to make the situation the least ambiguous. While this is so with foreign language learners, native speakers prefer pronominals or zero anaphora

because they are certain that their interlocutors can trace the source of these references. The question might still remain as why this is not true with the dorm case. The answer to this could be that in intimate situations like the dorm situation, references revolve around the familiar topics, hence little ambiguity in the discourse situation.

Distributions of zero, pronominal and NP anaphor types in the performance of controlled talk groups, on the other hand, have been different from that of the previous casual talk groups. Here, determining the states of information as given or new is done by the speakers who deliver speeches to a group of audience without receiving any feedback from them. Like dorm casual talk, individual speakers in controlled talk groups made more use of pronominal anaphors in comparison with NP and zero anaphors. This is, mostly, due to the fact that speakers in these talk groups believe that topics/participants, after their first mentions in NP forms in a given talk sequence, must be treated as instances of 'given' information and thus referred to by pronominals. In these controlled talk samples, because of lack of feedback, speakers have been barred from knowing about the addressees' perceptions and current states of information. Thus assigning NP or pronominal forms to the introduced topics, given their own perceptions of the addressees'/listeners' states of information, seem in order by the speakers.

5.3. Accessibility of anaphors in casual talk

Perhaps the most commonly made observation about the distributions of referring expressions is that there seems to be an inverse relation between the relative accessibility of the referent in the context of discourse and the amount of information conveyed by the expression used to refer to it- the more accessible the referent is, the less likely it is to be signposted by a highly explicit referring expression, such as a definite NP (Chafe, 1976; Ariel, 1990). In other words, less explicit referring expressions like pronouns and null anaphors are almost exclusively used when the referent is very accessible while new information is linguistically coded through full NPs or long nominal expressions.

As is evident from the Ariel's (1990) hierarchy of accessibility, pronominals are the second highly accessible entities after zero anaphors. They have also been under great attention in focus studies too. Chafe (1972, p. 50) contends that they are "foregrounding concepts in the mind of participants". Thus, the excessive use of pronouns in these talk samples reveals that the current or assumed referents are in a highly "active or controlling positioning" in talk (Fox, 1987, p. 95).

In academic casual talk, however, where large quantities of NP

anaphors are present, there is little degree of accessibility. Again, a glimpse at Ariel's (1990) hierarchy manifests that NP anaphors are less accessible than pronominal anaphors, which indicates that NP anaphors normally refer to entities that are not within speakers' focus of attention sphere. These NP forms, in Chafe's (1976, 1987) opinion, are backgrounded and their activation exerts higher cost on memory than the pronominals which are already in the active memory.

However, accessibility of anaphors in controlled talk can be described as a function of the current speaker's assessment of the audience's cognitive states. As such, pronominalization or nominalization in these talk samples occurs on the basis of the speaker's cognitive perspective. As mentioned earlier on, individuals in controlled talk groups appealed to more pronominal anaphors in comparison with NP and zero anaphors. This is typically because speakers in these talk groups believe that topics/participants, after their first mentions in NP forms in a given talk sequence, must be treated as instances of accessible information and are thus referred to by highly accessible pronominals. In controlled talk samples, because of lack of feedback, speakers have assigned less accessible NP anaphors or high accessible pronominals to the introduced topics upon their own assessments of the addressees'/listeners' states of information, which once again proves that the phenomenon is bilateral in that discourse participants' awareness of one another's consciousness is definitive in making linguistic choices.

5.4. Various distances in casual and controlled talk

Asymmetric distribution of anaphoric distances can be easily observed in the performance of different casual and controlled talk groups. This imbalance is even more evident in dorm and academic casual talks. When compared with other talk samples, it is observed that the dorm casual talk samples have the greatest distances between pronominal anaphors and their last nominal mentions.

Naturally, with an increase in distance, more coding material is expected. Given this, the amount of coding material in these talk samples has been a direct function to the amount of the observed distances. The average amount of coding material calculated in terms of the intervening words (both function and content words) occurring in dorm casual talk samples has been set at 35. This relative high amount of coding material in turn contains a noticeable average number of 10.5 subtopics. In Ariel's (1990) opinion, great amounts of coding materials can have negative effect on the accessibility and retrieval of anaphors in an extend discourse. However, in dorm casual talk groups speakers simply keep on conversing

without encountering serious problems in retrieving the referents of anaphors. This indicates that high accessibility degree of the topics is so effective in securing easy and safe retrievals which outweigh the relatively high distances of anaphors.

It is worth noting, nevertheless, that the shortest anaphoric distances have been observed in the performance of academic casual talk groups. As stated in the previous sections, NP anaphors frequently happen in these talk samples. The repeated occurrences narrow the distances between the pronominal anaphors and their last mentions. This is against Givon's iconicity principle which holds that NP anaphors happen in discourse when there are large gaps between anaphors and their previous mentions. Yet, in spite of making short distances to their antecedents, NP anaphors are frequently employed in these talk samples where pronominals are more expected to happen. This indicates that it is not only the distance which should be considered as the sole measurement but the relative foci of attention given to each entity under discussion.

Contrary to the dorm and academic casual talk samples which respectively had the greatest and smallest anaphoric distances, the distances observed in the performance of controlled talk groups seem to be moderate. Here, the observed distances are moderate in that they are less than those of the dorm and more than those of the academic casual talk samples. The main reason for the relatively short distances seems to be the insertion of NP anaphors within the sequences of talk. In other words, speakers decrease the distances by putting pronominals in the vicinity of the NPs to which they should refer. This ensures the speakers that pronominals which are about to be uttered in their talk will be fully retrieved by the addressees/listeners.

5.5 Thematicity of anaphors in casual and controlled talk

Thematic structure deals with the choice of different anaphoric devices in discourse. It shows how the structure of text is shaped by the use of a particular anaphor. It also reveals the role of context in determining the employment of a particular anaphor (Fox, 1987). As such, attending to the thematic structure of anaphors in terms of functions and patterns of distribution in different talk samples can be very expedient in distinguishing them.

To find out how anaphors pattern in the dorm casual talk, these talk samples must be divided into some smaller sequences/segments. It has been observed that speakers in dorm casual talk mainly initiate a sequence with a full NP and carry on using pronominals to continue the sequence. Later as the discourse persists, NP anaphors are again employed to close these sequences. To sum up, pronominals in dorm casual talk samples are mostly

used to maintain the internal structure of talk sequences and NPs come to set the episodic boundaries (i.e. the beginning and the end of talk sequences). The sample talk below (NPs underlines) is an indication of how nominal forms (the expression ‘communicative signals’) are used to set the initiation section of a talk, continue or maintain it and eventually used in the closure of the talk.

You know communicative signals are different from those which may be unintentionally informative. So one primary condition for ... the realization of communicative signals is their intentionality. It is a property that must be observed in the structure of communicative signals. They are very different. Indeed, human language is a kind of communicative signal. (Taken from sample Talk 7 in our data).

The thematic structure of sequences in academic casual talk seems to be influenced by the contextual factors and the relative difficulty of the topics raised in each talk situation. Netz and Kuzar (2007, p. 306) state that entities recurrently referred to by NP anaphors enjoy “less thematic prominence when compared with those referred to by pronominals”. Here, speakers seem to make tremendous use of NP anaphors either to “focus the listener’s attention” (Ochs, Keenan & Schieffelin, 1976, p. 245), or to “gain control over the floor” (Duranti & Ochs, 1979, p. 404). Here, “NPs initiate and close sequences and the combination of NP and pronominal anaphors are employed to continue topics in these sequences, as what happens in casual conversation” (Shokouhi, 2000, p. 103).

The way in which anaphors patterned in controlled talk samples is different from dorm and academic casual talk. This difference, for the most part, lies in the types of anaphors which are used to continue the topics within the sequences of talk. That is, while NP anaphors come to set the boundaries in controlled talk segments, pronominal and NP anaphors are employed to continue topics within the episodes/sequences of talk. In other words, speakers in these talk groups mainly introduce the topics by means of NP anaphors, and then employ pronominal and NP anaphors to continue topics in their talk. In the end, NP anaphors are once again used to close the talk sequences.

6. Conclusion

An evident asymmetry has been observed in the numbers and distribution of zero, pronominal, and NP anaphors in the performance of casual and controlled talk groups in this study. While dorm casual talk has been full of pronominal anaphors, academic casual talk is abundant in NP

anaphors. However, a higher inter-group correlation between 'narrative' and 'academic' talk samples in terms of the distribution of pronominal and NP anaphors shows that anaphoric distributions have been more moderate and coordinated in the performance of controlled talk groups.

The number of pronominal and zero anaphors in dorm casual talk samples has been the highest among other talk samples. As a result, the average accessibility spaces or anaphoric distances in these talk samples have been the largest. The generation of high anaphoric distances, first and foremost, can be attributed to the high amount of background and shared knowledge of the subjects involved in these talk groups. On the contrary, the high number of NP anaphors and meager presence of pronominal anaphors in the academic casual talk samples inevitably narrow the average anaphoric distances in these talk samples. On the other hand, distances or accessibility spaces in controlled talk have been moderate in that they are less than dorm and more than academic casual talks. Such moderate distances are mainly due to the moderate distributions of pronominal and NP anaphors.

Cognitively considered, the easy and unconscious retrieval of pronominal anaphors in casual talk samples indicate that they are heavily under 'focus' and highly accessible by the speakers and addressees. Conversely, the inclusion of large quantities of NP anaphors at the expense of pronominal and zero anaphors in the samples of academic talk testifies to the fact that the information that is transferred by the speakers is less familiar and accessible.

Thematic structure of anaphors in casual and controlled talk has also been studied in the framework of 'sequences' or 'episodes' of talk. It has been observed that while different talk samples largely adopted the same patterns in beginning and terminating their sequences with NP forms, pronominals performed a changing role in continuing topics within these sequences. However, NPs have not been the sole beginners of talk sequences in different talk situations. As in some occasions in dorm casual talk, pronominals have begun these sequences. Alternatively, pronouns in dorm casual talk are mainly used to continue topics within sequences but in academic casual talk they are substituted by the NP anaphors which happen to be the main continuers of the topics. Ultimately, both NP and pronominal anaphors are chiefly employed to continue the topics in the performance of controlled talk groups. However, the total number of pronominal anaphors as topic maintainers in these talk samples has been more than NP anaphors. Despite the various performance and selection of different anaphoric elements due to different paralinguistic situations, the fact is that almost all these instances indicate that the major concern for picking out one type of

referent instead of another is mostly the phenomenon of consciousness where speakers' momentary evaluation of their listeners are at issue when deciding to choose one particular type of anaphor over another.

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