The Spanish Journal of Psychology
2009, Vol. 12, No. 1, 56-65


ISSN 1138-7416

# The Role of Connectives in the Comprehension of Spontaneous Spoken Discourse

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The role of connectives in the comprehension of spontaneous spoken discourse has been investigated by testing the effect of the connective '*but*' in the realization of causal inferences and the integration of adjacent statements. The role of this connective in the realization of causal inferences has been tested through a judgment task. The role of '*but*' in the integration of the adjacent statements has been tested through a word monitoring task. The presence of the connective resulted in shorter reaction times for the realization of causal inferences in the judgment task, but it did not result in shorter reaction times for the integration of adjacent statements, as measured by the word monitoring task. These results suggest that listeners are able to make use of connectives to help them create and decide on the existence of causal connections, but not to process and recognize the surface form of the second statement of the pair.
*Keywords: connectives, spoken discourse, causal inferences, comprehension*

El rol de los conectores en la comprensión de discurso oral espontáneo ha sido estudiado examinando el efecto del conector '*pero*' en la realización de inferencias causales y en la integración de enunciados adyacentes. El rol de este conector en la realización de inferencias causales ha sido investigado a través de una tarea de elaboración. El rol de *'pero'* en la integración de enunciados adyacentes ha sido investigado a través de una tarea de monitoreo de palabras. La presencia del conector resultó en menores tiempos de reacción para la realización de inferencias causales en la tarea de elaboración, pero no resultó en tiempos menores de reacción para la integración de enunciados adyacentes en la tarea de monitoreo de palabras. Estos resultados sugieren que los oyentes son capaces de utilizar la presencia de un conector para crear y decidir acerca de la existencia de conexiones causales entre los enunciados, pero no para procesar y reconocer la forma superficial del segundo enunciado del par conectado.
*Palabras clave: conectores, discurso oral, inferencias causales, comprensión*

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How to cite the author of this article: Cevasco, J.

Discourse comprehension has been extensively investigated with respect to texts, and narrative texts in particular (e.g., Calvo & Castillo, 2001; Campion & Rossi, 2001; Mandler & Johnson, 1977; Shears, & Chiarello, 2004; Shears, Miller, Ball, Hawkins, Griggs, & Varner, 2007; van den Broek & Trabasso, 1986; Zwaan, & Madden, 2004; Zwaan & Radvansky, 1998). One of the most consistent findings has been that comprehension involves the reader's identification of meaningful relations–in particular local and global causal ones- between text elements, and that these processes result in a coherent representation of the discourse in memory. That is, evidence has shown that events with many causal connections are recalled more often than events with few connections (Trabasso & van den Broek, 1985; Goldman and Varnhagen, 1986), rated as more important (Trabasso & Sperry, 1985), and retrieved more quickly (O'Brien & Myers, 1987). Yet, little attention has been paid to the processing of causality, connectives and realization of inferences in the comprehension of spontaneous spoken discourse. The purpose of this study is to explore such issues, by focusing on the role of connectives in the integration of spoken discourse, and the establishment of causal connections among spoken statements.

Spontaneous spoken discourse has traditionally been approached through discourse analysis, and through comprehension studies that have focused on the processing of speech disfluencies and prosodic cues. Approaches to discourse analysis have applied the methodology and theoretical principles of linguistics to isolate units, to formulate rules, and to identify recurring patterns in naturally occurring conversations (Schiffrin, 1994; Stubbs, 1983). Studies on the processing of spontaneous speech have focused on listeners' ability to predict, detect, and manage disfluencies (Brennan & Schober, 2001; Fox Tree, 1995; Lickley & Bard, 1998), listeners' use of filled pauses (Fox Tree, 2001; Fox Tree, 2002), listeners' use of prosodic cues (Schafer, Speer, Warren & White, 2000; Snedeker & Trueswell, 2003; Kraljic & Brennan, 2005), and so on. These approaches and studies have provided important information about the structure of spontaneous spoken discourse, and about the processing of speech repairs and interpretation of prosodic cues. Yet, given that they have not focused on the cognitive processes involved in comprehending the relations among the spoken statements, they have not provided information about the role of causal connections and connectives in the comprehension of spontaneous spoken discourse.

The cognitive processes involved in the realization of causal inferences have been explored in text studies. The Causal Inference Maker model (van den Broek, 1990) proposes that when a reader faces a new statement, he or she attempts to find an adequate causal explanation for its occurrence. If the immediately preceding statement provides it (that is, it is sufficient or necessary for explaining the occurrence of the current statement), a *connecting inference* is generated. If the preceding statement does not fulfill the causal criteria, a coherence break occurs. In order to solve this break, a search for information from an earlier part of the text begins. When the statement that causally explains the statement being read is found and reactivated, a *reinstatement inference* is generated. Thus, by causally interconnecting the described events, the reader extracts a representation of the text as a set of integrated ideas.

The integration of ideas presented in discourse has also been proposed to be facilitated by the presence of connectives. Connectives are words or short phrases (such as *because, and, but*) that specify how to conceptually link two adjacent statements (Halliday & Hasan, 1976). Psycholinguistics has become increasingly interested in the effects of connectives on the processing and comprehension of discourse (Murray, 1997). That is, given that they facilitate the integration of adjacent statements, connectives should contribute to the establishment of discourse connections. These connections are required for comprehension, given that we need to process how each new statement is linked to previous statements in order to form coherent discourse representations (Guzmán & Klin, 2000). About the processing of connectives, Millis and Just (1994) propose that the presence of a connective should reactivate the contents of the first statement when the reader finishes processing the second statement, leading to the formation of an integrated representation of the two of them. Traditionally, the role of connectives in comprehension has been studied in a set of reading situations (Degand, Lefevre, & Bestgen, 1999; de Vega, 2005; Golding, Millis, Hauselt & Sego, 1995; Millis, Graesser & Haberlandt, 1993; Millis & Just, 1994; Singer & O'Connell, 2003; Sloutsky & Goldvarg, 2004; Wiley & Myers, 2003). These studies have shown that the reading time for a statement following a connective is faster compared to the absence of such connective (Golding et al., 1995; Haberlandt, 1982; Maury & Teisserenc, 2005; Millis & Just, 1994; Murray, 1995; Sanders & Noordman, 2000), and that semantically appropriate connectives have faster reading times than semantically inappropriate connectives (Murray, 1997). Connectives also appear to benefit comprehension by facilitating the recall of statement pairs (Caron, Micko & Thuring, 1988; Deaton & Gernsbacher, in press; Golding et al., 1995), by decreasing answer times to comprehension questions (Millis & Just, 1994), and by increasing the activation of causally based inferences (Millis et al., 1995). In other words, there is evidence that suggests that connectives assist readers in forging discourse connections (Millis & Magliano, 1999; Murray, 1995).

As a first step towards approaching the role of causal connectivity in the comprehension of spontaneous spoken discourse, Cevasco and van den Broek (in press) used the network theory of discourse representation (Trabasso & Sperry, 1985) to parse an excerpt of a radio transmission into causes and consequences in the announcers' statements.

They expected statements that had many causal connections to other statements in the same discourse to be recalled more often than statements with fewer connections. In order to test this, they asked participants to either listen to the excerpt of the transmission or to read its transcript, and to perform a free recall and a question-answering task afterwards. Results showed that the more causally connected statements were better recalled and more often included in answers to questions about the materials than the less causally connected statements. This was the case when the radio transmission was presented either in oral or written formats. The authors concluded that listeners seem to rely on processing how speakers' statements are causally interconnected in order to derive a coherent representation of spontaneous spoken discourse in memory.

Given that there is evidence that the processing of causality and connectives plays a role during the comprehension of written discourse, and that causal connectivity has been shown to have a role in the recall of spontaneous spoken discourse, the purpose of this investigation is to study the role of connectives and causal inferences during the comprehension of spontaneous spoken discourse. Currently, little is known about how listeners process causal relations among a speaker's statements as they listen to them, or how the processing of causal inferences interplays with the processing of connectives in the construction of a coherent representation.

In order to assess the impact of causal inferences in spontaneous spoken discourse comprehension, I will use the Causal Inference Maker model of reading comprehension (van den Broek, 1990) to identify locations in which reinstatement inferences are required after a connective has been presented.

In order to approach the role of connectives, I will focus on '*but.*' As an adversative connective, '*but*' signals contrast or 'denial of expectation' between two adjacent statements (Halliday & Hasan, 1976; Schiffrin, 1987). Given that they signal that the second statement somehow contrasts or contradicts an expectation raised by the first one, adversatives are expected to facilitate the processing of the connection between them (Golding et al., 1995; Murray, 1995). Text studies have provided mixed support for this effect. Shorter reading times were observed for sentences disconfirming an expectation following an adversative than when this connective was absent (Golding et al., 1995; Haberlandt, 1982; Millis and Just, 1994). The presence of adversatives between two statements led to faster responses to comprehension questions than the absence of these connectives (Millis & Just, 1994). Inappropriately placed adversatives led to longer reading times on the postconnective sentence and lower ratings of coherence than inappropriately placed additive or causal connectives (Murray, 1997). Yet, Caron, Micko, and Thuring, (1988) found that unrelated sentences connected by *but* were less well recalled than those containing *and* or *because.* Golding et al. (1995), and Murray (1995) found that adversative connectives did not improve recall for simple two statement pairs. This mixed evidence can be considered in terms of the materials and procedures that have been used. Caron et al. (1988)'s materials consisted of unrelated sentence pairs, where the match between the connective and the target text was poor (Murray, 1995). Also, text studies have typically made use of research created sentence pairs as narratives, which have been proposed to be too short and relatively unnatural (Golding et al., 1995; Murray, 1995). In order to address these limitations, the current study will approach the role of connectives by using naturally occurring conversations as materials. These will involve longer and spontaneously created discourse.

The study of the effects of '*but*' will allow us to get closer to understanding how listeners process relations among statements they hear. I expect that, if connectives serve as signaling devices that facilitate comprehension, as has been found with written discourse, we will observe faster response times in connective versions than in versions where the connective has been spliced out. If this is the case, then we could suggest that there is some continuity in the cognitive processes involved in the on-line comprehension of planned, written and spontaneous spoken discourse. If the effect of connectives in spontaneous discourse comprehension does not replicate the effects that have been observed with written discourse, then we would suggest that the listener might be aided in making connections among spoken statements by information specific to spoken discourse (such as prosodic cues, filled and unfilled pauses, etc).

The role of '*but*' in the realization of causal inferences and the integration of adjacent statements will be investigated through a judgment task and a word-monitoring task.

## Method

To test the role of the connective '*but*' in the realization of causal inferences, participants were asked to perform a judgment task. To test the role of '*but*' in the integration of adjacent statements, participants performed a word-monitoring task.

In the judgment task, participants were asked to listen to spontaneous spoken discourse materials, and to decide whether sentences that would appear on the screen at selected points where the presentation of the oral materials would be interrupted, helped them understand or explain the last statement they had heard or not. The target sentences involved statements that had been previously presented in the conversation, which were causally connected to the statement following *'but.'* That is, they provided causal information that needed to be reinstated in order to understand the last heard statement. Thus, this task targeted at the likelihood of participants being able to create and elaborate on the existence of causal connections as they listen to spontaneous spoken discourse. For example:

(1) LYNNE: ... Debby.
I mean she was in…
she loved horses so much,
and she was always, like,
she's allergic to horsehair,
horse sweat,
*but* she wouldn't quit riding em.
***Target Statement:***
*She loved horses.*

(2) ALINA: Hector was… you know;.. the show last week?
And I ... and I called up to talk to him,
and I could hear the musicians in the background
tuning up their instruments.
And then... you know, it's okay to talk to Hector,
I could hear him a little bit,
*but* not too well.
***Target Statement:***
*I could hear the musicians in the background.*

I expected the presence of the connective '*but'* to facilitate the linking of the two statements it connected, and this to facilitate the reactivation of statements causally connected to the second one. This reactivation should make it easier for participants to respond that the target statement helps them understand the last statement they heard, because it would be more active at that point. That is, by making explicit the nature of the relation between the adjacent pair, the connective should eliminate costly inferences as to how the two statements are related (Caron et al., 1988). This should save resources that would be available to establish causal connections between the second statement and previous ones. For example, in order to explain '*she was allergic to horsehair, horse sweat, but she wouldn't quit riding them'* listeners might need to reactivate the statement *'she loved horses',* or to understand why the speaker in (2) '*could not hear too well'*, listeners might have to reactivate that '*the musicians were tuning up their instruments in the background'*. The underlying assumption was that, as has been suggested by the Causal Inference Maker model, the comprehender attempts to find adequate causal justification for each new statement he or she reads or listens to. The first statement to be considered is the immediately previous one. In the case of adversatively connected statements, the first statement will not provide that information, given that it will be establishing a contrast with the current one. Thus, listeners will have to search for this information in prior statements. I expected that, if the presence of the connective facilitates the realization of causal inferences, participants would reactivate causal information and be able to respond faster in the presence of a connective than if there is no such connective.

As a second measure to test the role of the connective '*but'*, subjects were asked to perform a word-monitoring task (Marslen-Wilson & Tyler, 1980). In this task, participants are asked to keep track of a word as they listen to spoken discourse, and to press the '*Y*' key when they hear it, or '*N*' if they do not hear it. This task has been used in spoken discourse studies to test the availability of information after a speech repair (Fox Tree, 1995), or a filled pause (Fox Tree, 2001) has been presented. It is expected that the speed at which participants respond reflects their ability to integrate information up to that point (Marslen-Wilson & Tyler, 1980). That is, the more interpretable the information prior to the target word is, the faster people are able to recognize it (Marslen-Wilson, & Welsh, 1978; Fox Tree, 1995; Fox Tree, 2001). In this study, the target words that participants monitored for were words that appeared at the end or next to the end of the second statement of the pair. For example '*riding'* in: ''*She was allergic to horse hair, but she wouldn't quit riding them',* or '*well'* in '*I could hear him a little bit, but not too well'*. Reaction times to these words were expected to indicate how easy it was for listeners to incorporate the new information provided by the second statement, after they had or had not heard a connective preceding it. That is, how facilitating of the processing and incorporation of information in the second statement the connective was. I expected that, if the presence of a connective makes it easier for listeners to process how the new statement is related to the immediately previous one, the processing of the information in the second statement should be facilitated, and there should be faster word recognition times than in versions were the connective has been spliced out.

## *Materials*

Materials were taken from the Santa Barbara Corpus of Spoken American English Parts I and II (Du Bois, Chafe, Meyer & Thompson, 2000), and from an interview with the writer Paul Auster at CBS radio (1987). The Santa Barbara Corpus comprises recordings of natural speech in a variety of discourse contexts (conversation, arguments, lectures, etc), and was designed for discourse analysis. The interview with Paul Auster addressed topics related to his writing of novels and poetry.

Materials presented to participants consisted of segments of speech that contained a spontaneously produced *but,* followed by a statement that required the reactivation of a causally connected statement. Each stimulus began at the beginning of an idea and finished with a completed thought.

In order to identify locations that required the realization of reinstatement inferences, and the content of these inferences, two judges applied the criteria and procedures proposed by Trabasso and van den Broek (1985). They agreed on 89% of the relations ($\kappa = .88$, $p < .001$). Differences were resolved through discussion. On the basis of these judgments, 18 locations that required reinstatements, and 18 statements that provided the information that needed to be reinstated were identified.

https://doi.org/10.1017/S1138741600001475 Published online by Cambridge University Press

In total, there were 18 critical stimuli, 18 filler stimuli, and 3 practice stimuli. In each critical stimulus, a statement from earlier portions of the conversation that provided causal explanation for the statement following '*but'* was selected as the target sentence. The filler stimuli were selected from the same corpus as the critical stimuli and were similar in length and content.

For each critical stimulus, a second version was created where the critical *but* was excised. This was done by selecting each critical instance of '*but,'* and splicing it out using the audio editor program Audiogalaxy.

Examples of the relevant sections in the two conditions (more samples can be found in Appendix):

(1) Unedited: she was allergic to horsehair,
horse sweat,
**but she wouldn't quit riding em**.
(1) Edited: she was allergic to horsehair,
horse sweat,
**she wouldn't quit riding em**.
(2) Unedited: Hector was… you know;.. the show last week?
And I ... and I called up to talk to him,
and I could hear the musicians in the background tuning up their instruments.
And then... you know, it's okay to talk to Hector,
I could hear him a little bit,
**but not too well.**
(2) Edited: Hector was… you know;.. the show last week?
And I ... and I called up to talk to him,
and I could hear the musicians in the background tuning up their instruments.
And then... you know, it's okay to talk to Hector,
I could hear him a little bit,
**not too well.**

In other words, in the connective condition, the two last statements participants heard were conjoined by the connective *but*. In the no-connective versions, the two statements were not joined by a connective.

The words participants were asked to monitor for were words spoken at or next to the end of the second statement. They involved verbs, nouns, and adjectives. They appeared only once in each conversational excerpt.

### *Participants*

Thirty-six undergraduate students at the University of Minnesota participated in the study for course credit. The sample was drawn from introductory psychology and social psychology courses.

### *Procedures*

Subjects were tested individually in a session that lasted around 30 minutes. Instructions told them that they would listen to excerpts of conversations on the computer, and have to monitor for a particular word in each conversational excerpt. Once the excerpt was over, they would be presented with a sentence, and would have to say whether that sentence helped them understand or explain the last sentence they had heard or not by pressing the *Y* or *N* keys.

Participants listened to the excerpts. At the beginning of each segment, a word appeared on the screen, and remained there until the participant pressed the '*Y*' or '*N*' keys. Once the segment was over, a sentence appeared on the screen. Participants' task was to indicate whether they thought it helped them understand or explain the last sentence they had heard or not. Reaction times were measured from the onset of the target statement until the participant pressed either key. After participants had responded, the following segment began. Participants heard half the target sentences and half the target words after a connective had been presented between the two last sentences. This was the *connective* condition. In the *no* connective condition, the other half target sentences and target words were presented to the participants after they had heard the two last sentences without any connective between them. Each participant heard only one version of each stimulus.

## Results

*Judgment Task.* Responses that were more than 3 standard deviations from the mean reaction time were excluded. This represented less than 1% of the data.

Mean decision times were submitted to a one-way ANOVA, with connective (present vs. absent) as the independent variable. Only items that were correctly answered in the recognition task were included. This analysis indicated that there was an effect of connective presence on the speed at which subjects responded to whether the sentence with which they were presented helped them understand the last sentence they had heard or not, $F(1, 466) = 6.930$, $p = .009$, $\eta^2 = .015$. Those statements representing causal inferences that were presented following a sentence preceded by a connective were responded to faster than those which followed a sentence that had not been preceded by any connective (see Table 1) . Another one-way ANOVA was run to test whether there was an effect of connective presence on rates of *'yes'* and *'no'* responses. This analysis showed that there was no such effect, $F(1,608) = 1.162$, $p = .282$, $\eta^2 = .002$. Those statements representing causal inferences that were presented following a sentence preceded by a connective did not receive more *'yes'* (coded 1) or *'no'* (coded 0) responses than those which followed a sentence that had not been preceded by any connective (see Table 2).

*Word Monitoring Task.* Responses that were more than 3 standard deviations from the mean reaction time were excluded from the analysis. This represented 5% of the data.

https://doi.org/10.1017/S1138741600001475 Published online by Cambridge University Press

Table 1
*Mean Reaction Times (in ms) as a Function of Connective Condition*

| | Judgment Task | | Word Monitoring Task | |
|---|---|---|---|---|
| | M | SD | M | SD |
| Connective Present | 2461.76 | 1111.52 | 497.71 | 665.01 |
| Connective Absent | 2779.41 | 1480.05 | 551.14 | 609.67 |

Table 2
*Mean Difference Rates of 'Yes' and 'No' Answers in the Judgment Task as a Function of Connective Condition*

| | M | SD |
|---|---|---|
| Connective Present | .80 | .401 |
| Connective Absent | .76 | .425 |

Mean word recognition times were submitted to a one-way ANOVA, with connective (present vs. absent) as the independent variable. Only items that were correctly answered in the recognition task were included. This analysis indicated that there was no effect of connective presence on word monitoring times, $F(1,555) = .976$, $p = .324$, $\eta^2 = .002$. That is, those words subjects were monitoring for that followed a sentence preceded by a connective were not recognized faster than those which had not been preceded by any connective (see Table 1).

## Discussion

This study investigated the role of connectives in the realization of causal inferences and in the integration of adjacent spoken statements.

The presence of a connective was expected to facilitate the linking of adjacent statements, by making the relation between them explicit. This integration was expected to leave cognitive resources available to reactivate previous causally connected information, and to generate causal inferences.

An underlying assumption of this investigation was that the successful interpretation of spoken language requires the integration of each new utterance into the listener's mental representation of the current discourse (Marslen-Wilson & Tyler, 1993). This will involve making causal connections (Cevasco & van den Broek, in press), realizing causal inferences (van den Broek, 1990), and processing the signals implied by connectives (Murray, 1995).

The role of the connective *'but'* in the realization of causal inferences and in the integration of adjacent statements was investigated through a judgment task and a word-monitoring task. The judgment task captured an effect for this connective, suggesting that it provides a useful tool for creating and perceiving the existence of causal connections. The word monitoring task did not capture an effect for *'but'*, suggesting that it does not facilitate the recognition or processing of words in the second statement.

The facilitative effect of *'but'* on the realization of causal inferences is consistent with findings from written discourse studies (Murray, 1995; 1997). That is, *'but'* seems to be a useful device for anticipating the cancellation of an expectation, and integrating the upcoming information with the preceding statement. This integration appears to allow listeners to reactivate previous causally connected information more easily than if there is no such connective.

A possible explanation for the lack of an effect of *'but'* in the word monitoring task could be that this task mainly targets at the processing of surface information, and not at the representation of the coherence relations among the statements. That is, given that participants received the instruction to recognize a word when they heard it, this might have prompted them to be more focused on a low level of processing, and not at the connections that each statement had to other statements. In consequence, they might have still been able to keep track of the words in the second statement, even if they had not formed a coherent representation of how it was connected to the previous one. Consistent with this idea, Ferreira and Anes (1994) have suggested that the word monitoring task might be tapping primarily at the lexical level of processing, and be predominantly affected by variables that affect this level. Thus, it would be interesting to keep studying the processing of connectives in spoken discourse through the use of different tasks. For example, a probe recognition task could be used to present probe words at the end of the second statement, and ask subjects to recognize them.

It would also be interesting to keep testing the realization of causal inferences through the use of different tasks. That

https://doi.org/10.1017/S1138741600001475 Published online by Cambridge University Press

is, a limitation of the judgment task is that it is mainly a metacognitive task. In other words, it requires participants to respond about their *perceptions* of the existence of causal connections, and does not provide direct empirical cues on the availability of previous information. As an alternative, the use of a probe recognition task could inform us more directly on the effects of connectives on memory performance.

Considering the findings from this investigation, we can propose that it extends previous research on connectives. It provides evidence that they can have a role in the processing of spontaneous spoken discourse, and that their effects can go beyond the processing of adjacent relations. Also, given that it used long and spontaneously produced discourse, it addresses some of the concerns that have been raised by previous studies about the repeated use of short and researcher-created materials to study comprehension (Golding et al, 1995; Murray, 1995).

Converging evidence from future studies that use different task paradigms and other spontaneous discourse materials (other corpuses, etc) will be required to support the findings and conclusions made by this study. Also, future studies that focus on unique aspects of spontaneous spoken discourse will extend our understanding of how listeners derive integrated representations of the verbal and non-verbal information conveyed when people talk, and allow us to address the limitations of what current models of discourse comprehension based on written discourse can tell us about spoken discourse comprehension. And, additional studies that keep approaching the limitations of what models of spoken language comprehension can tell us about the realization of inferences and comprehension of interstatement relations will help us extend our understanding of how coherent representations are derived when people listen to spoken discourse.

In conclusion, according to this study, listeners are able to construct coherent relations among the statements they hear, as they hear them. Connectives, as linguistic cues, appear to help them to do that. Thus, it seems that the mental representation of two spoken statements conjoined by a connective and the mental representation of two statements spoken in isolation are not the same (Caron et al., 1988).

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Received December 22, 2007
Revision received May 20, 2008
Accepted September 21, 2008

# APPENDIX

## Sample conversational excerpts, target sentences and target words

**A) Santa Barbara Corpus of Spoken English** I and II (Du Bois et al., 2000):

Title: **"Actual Blacksmithing"**
Speech Event: mother, visitor and daughter talking about blacksmithing, school, etc.

LYNNE: I would have never got into that class…there's no way, if I didn't have to have it. I mean, I heard everybody saying, you know, 'You have to do this, you have to do that. There's dead horse hooves, and they stink'. And I was just going: '**I don't want to take that class**, so maybe I'll wait till next year…' And then I thought: 'No, I'll get it out of the way now'. And then, once I got into it, geez, I wanna take the second half of it. It was just really interesting to me,

*Connective Condition:*
but at first it was kind of a bummer.

*No Connective Condition:*
at first it was kind of a bummer.

Target Statement:
I didn't want to take that class.
Target Word:
BUMMER

Title: **"This retirement bit"**
Speech Event: Conversation among friends about retirement, family, etc.

ANGELA: Oh, did I tell you that the spring broke in my recliner?
SAM: Oh, yes. You got it fixed up?
ANGELA: …and two men came in, and wrestled it all over the floor. And, they found out that it was easier if they went back out the truck, and got a whole assembly for one side... You know…that makes the…
SAM: Was this on the seat or the back of your chair?
ANGELA: …makes the feet go out… the footrest goes out. You know, there's a mechanism there. So they put a whole new mechanism in one side. And I wasn't prepared for them to... I was going to tip them, but **I wasn't prepared to buy the chair over again**…
DORIS: No…
ANGELA: So I gave 'em ten dollars,

*Connective Condition:*
but that's all I had.

*No Connective Condition:*
that's all I had.

Target Sentence:
I wasn't prepared to buy the chair again.

Target Word:
HAD

https://doi.org/10.1017/S1138741600001475 Published online by Cambridge University Press

Title: **"Deadly Diseases"**
Speech event: Conversation among visiting friends

KEN: I remember watching them feed the Oscar once, when I was a kid. He drops the goldfish into the tank, and the goldfish goes and swims around. And, the Oscar sneaks up behind it, and opens its mouth. And like creates a vacuum .. kinda thing cause...
JOANNE: Oh, my God!
KEN: you got this huge mouth, that sucks the goldfish in. And then… but **the goldfish got stuck half-way into his mouth**... So, you got this Oscar there, swimming around in the tank, with like... a goldfish, sticking out of his mouth... the head of a goldfish. And the Oscar's there swimming around, and you could tell the little goldfish… I mean, they don't have what you would call massively expressive faces,

*Connective Condition:*
but I think it was worried.

*No Connective Condition:*
I think it was worried.

Target Statement:
the goldfish got stuck.

Target Word:
WORRIED

**B) Interview with Paul Auster at CBS radio** ("The Book Beat", 1987):

D. SWAIM: Now, in what way are they a trilogy? Are the characters linked from one book to another?
P. AUSTER: Well, actually… I call it a trilogy, but you might more accurately call it a triptic. It's three panels, all connected in some ways. I think the themes of the stories bounce off of one another, but **they really can all be read independently.** The characters don't really reappear, although certain names in the third book crop up from the first book…

*Connective Condition:*
but really they are not the same people.

*No Connective Condition:*
really they are not the same people.

Target Sentence:
The books can be read independently.

Target Word:
PEOPLE

https://doi.org/10.1017/S1138741600001475 Published online by Cambridge University Press