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Genre and Grammar:
Predicative and Attributive Adjectives in Spoken English
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This paper examines the distribution of predicative versus attributive adjectives in a corpus of 51,852 words of naturally-occurring spontaneous English conversation. I demonstrate that the frequency of each type of adjective is related to aspects of the interactional situation, specifically to the amount of shared experience, and likewise shared referents, among the interlocutors. I claim that it is the discourse-pragmatic functions of adjectives which leads to this correlation; namely to introduce a new referent for attributive adjectives, and to predicate a property on an already-established referent for predicative adjectives (cf. Thompson 1988). This paper demonstrates a specific way in which the distribution of grammatical forms is shaped by discourse-pragmatic factors, and depends on the type of interaction being observed.

The data consists of ten separate speech events, comprising 51,852 words of naturally-occurring conversational English. These 10 segments are part of the Corpus of Spoken American English being collected and transcribed at the University of California at Santa Barbara. Appendix A. gives a brief overview of the transcription system. Names of speech events used in this paper are the titles given to the segments by the Corpus of Spoken American English. Appendix B. lists a brief summary of each of the ten speech events.

In this paper I follow the standard classification of English adjectives into two main types (cf. Quirk et al 1972). Attributive adjectives are those which occur within a noun phrase, as in (1).

(1) **attributive adjectives**
("Conceptual Pesticides" IU 1307-1308)
but part of the time I got to be a worker, and do the really **fun** work,

("Conceptual Pesticides" IU 40)
(H) Ma=n that's a **big** hunk of fish.

("Deadly Diseases" IU 327)
(H) it was even more corrupt than the usual **corrupt** election.

There are three types of predicative adjectives in my data, as shown by (2). The overwhelming majority of predicative adjectives in my data (around 96 percent) are of the linking-verb variety as in (A.) Those adjectives illustrated in (B.) act as predicate complements without a linking verb. Those in (C.) are assessments, predicating a property on a referent from previous discourse or in the situational context.
(2) **predicative adjectives**

A. Linking-verb Predicates
("Ancient Furnace" IU 621)
   The return grill's plenty *big* enough.

("Conceptual Pesticides" IU 867)
   Oh that sounds *great*.

("Cuz" IU 116-117)
   ... (TSK) And of course Jo=hn,
   who's just as *ba=da*,

B. Complement Predicates
("Hey Cutie Pie" IU 933, talking about a refrigerator)
   I keep it really *cool*.

("Deadly Diseases" IU 1579)
   .. cause it'll only eat it *live*.

C. Assessment Predicates
("conceptual Pesticides" IU 266)
   How *bizarre*.

("Conceptual Pesticides" IU 1197)
   .. *Yummy*.

At least two linguists (cf. Croft 1991, Bhat 1994) have proposed that the 'primary function' of adjectives is to serve as grammatical modifiers. One justification for this claim is based on frequency. As Bhat summarizes (1994:12, emphasis mine): "In English, for example, *adjectives occur primarily as modifiers of nouns in noun phrases*, whereas nouns and verbs occur primarily as heads of noun phrases and the nuclei (predicates) of sentences or clauses respectively." But what does 'occur primarily' mean, and is it empirically true for naturally occurring language? Bhat presents semantic and grammatical evidence (the discussion of which lies outside the scope of this paper) to support his claim of modification as the 'primary function' of adjectives, but he does not support his claim that English adjectives 'occur primarily' as modifiers. The main question I am posing in this paper is: in naturally occurring conversational English, do adjectives 'occur primarily' as modifiers within noun phrases?

Two previous studies shed light on this issue. However, both of these studies seem to arrive at diametrically opposite conclusions. Chafe, (1982) in conjunction with the findings of a study comparing informal spoken English with formal written English, finds a greater than two-to-one ratio of attributive to predicative adjectives in his sample of 9,911 words of informal spoken English. For attributive adjectives, Chafe reports 33.5 occurrences per thousand words, and
15.8 occurrences per thousand for predicative adjectives. This shows a percentage difference of 35.8 percent more attributive than predicative adjectives in Chafe's data.\textsuperscript{3} Thompson, (1988) in a study of property concepts in conversational English and Mandarin Chinese, finds a ratio exactly opposite that reported by Chafe. Of the 308 total adjectives in Thompson's database of conversational English, 32 percent are what would be traditionally defined as attributive (66 modifiers in new NPs, and 33 modifiers of predicate nominals), while 68 percent (209 occurrences) are grammatical predicates.\textsuperscript{4} Thus, Thompson's data show 35.8 percent more predicative than attributive adjectives.

The findings of my current study add even more disparity in this area. Out of a total of 2,006 adjective tokens in my database, 968 (48.3 percent) occur attributively, while 1,038 (51.7 percent) occur as predicates. Thus, in my data there are 3.4 percent more predicative than attributive adjectives. This is not a very significant difference given the number of adjective tokens in my data, or as compared with the extremely large differences observed in Chafe's or Thompson's data. Table (3) lists the results of these three studies for ease of comparison.

(3.) \textbf{Summary of adjective distribution in three studies}

<table>
<thead>
<tr>
<th>STUDY</th>
<th>TOTAL-WORDS</th>
<th>TOTAL-ADJ.</th>
<th>ATTRIB.</th>
<th>PRED.%-DIF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chafe</td>
<td>9,911</td>
<td>(332) 67.9%</td>
<td>(157) 32.1%</td>
<td>+35.8%</td>
</tr>
<tr>
<td>Thompson\textsuperscript{5}</td>
<td>(8,000)</td>
<td>308</td>
<td>99, 32.1%</td>
<td>209, 67.9%</td>
</tr>
<tr>
<td>Englebretson</td>
<td>51,852</td>
<td>2,006</td>
<td>968, 48.3%</td>
<td>1,038, 51.7%</td>
</tr>
</tbody>
</table>

Based on the figures listed in table (3), the next logical question is whether there is an explanation for the large amount of variation across these three studies. I can think of at least three possibilities. First, perhaps all three researchers used different criteria to determine what counted as an adjective. However, I attempted to follow the coding methodology outlined in both Chafe's and Thompson's studies—e.g., including highly-lexicalized participles as adjectives (such as \textit{exciting, depressing, dead, rotten, married}, among others), and by not coding attributive nouns, etc. The number of borderline cases was too small to account for the range of variation among the three studies. A second possible explanation concerns sample size. My database is over six times larger than either Chafe's or Thompson's. The third explanation, which I believe to be most tenable, is related to interactional differences among speech events. My database contains several different types of conversational English, as shown in Appendix B. In personal communication with both Chafe and Thompson, I have learned that, unlike the varied speech events in my database, the data for each of their studies is fairly homogenous. Both are definitely conversational English, but the data for Chafe (1982) is heavy on personal experience narratives, while the data for Thompson (1988) is very much oriented toward participatory, interactional conversation. Thus I believe this third hypothesis, that distribution of attributive and predicative adjectives is related to the type of speech event, is worthy of further investigation.
Table (4) presents a breakdown of adjective distribution in my data, in terms of the ten separate speech events.

(4) Summary of adjective distribution by Speech Event

<table>
<thead>
<tr>
<th>TITLE</th>
<th>WORDS</th>
<th>ADJ</th>
<th>ATTRIB.</th>
<th>PRED.</th>
<th>%-DIFF.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Bank Products&quot;</td>
<td>4,986</td>
<td>125</td>
<td>79, 63.2%</td>
<td>46, 36.8%</td>
<td>+26.4%</td>
</tr>
<tr>
<td>&quot;Fiesta Party&quot;</td>
<td>5,964</td>
<td>192</td>
<td>119, 62.0%</td>
<td>73, 38.0%</td>
<td>+24.0%</td>
</tr>
<tr>
<td>&quot;Ancient Furnace&quot;</td>
<td>4,938</td>
<td>123</td>
<td>75, 61.0%</td>
<td>48, 39.0%</td>
<td>+22.0%</td>
</tr>
<tr>
<td>&quot;Conceptual Pesticides&quot;</td>
<td>4,699</td>
<td>264</td>
<td>137, 51.9%</td>
<td>127, 48.1%</td>
<td>+3.8%</td>
</tr>
<tr>
<td>&quot;Deadly Diseases&quot;</td>
<td>6,551</td>
<td>294</td>
<td>151, 51.4%</td>
<td>143, 48.6%</td>
<td>+2.8%</td>
</tr>
<tr>
<td>&quot;Cuz&quot;</td>
<td>5,953</td>
<td>210</td>
<td>104, 49.3%</td>
<td>106, 50.5%</td>
<td>-1.0%</td>
</tr>
<tr>
<td>&quot;Appease the Monster&quot;</td>
<td>6,390</td>
<td>305</td>
<td>131, 43.0%</td>
<td>174, 57.0%</td>
<td>-14.0%</td>
</tr>
<tr>
<td>&quot;Actual Blacksmithing&quot;</td>
<td>5,049</td>
<td>193</td>
<td>78, 40.4%</td>
<td>115, 59.6%</td>
<td>-19.2%</td>
</tr>
<tr>
<td>&quot;Runway Heading&quot;</td>
<td>2,604</td>
<td>89</td>
<td>29, 32.6%</td>
<td>60, 67.4%</td>
<td>-34.8%</td>
</tr>
<tr>
<td>&quot;Hey Cutie Pie&quot;</td>
<td>4,718</td>
<td>211</td>
<td>65, 30.8%</td>
<td>146, 69.2%</td>
<td>-38.4%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>51,852</td>
<td>2,006</td>
<td>968, 48.3%</td>
<td>1,038, 51.7%</td>
<td>-3.4%</td>
</tr>
</tbody>
</table>

Note the wide range of variation across transcripts, in terms of the percentage difference between attributive and predicative adjectives. On one end of the spectrum, "Bank Products" displays 26.4 percent more attributive than predicative adjectives. On the other end of the spectrum, "Hey Cutie Pie" shows a percentage difference of 38.4 percent more predicative than attributive adjectives. Looking at the percentage differences in table (4), these ten speech events can be divided fairly neatly into three discrete groups. One group ("Bank Products", "Fiesta Party", and "Ancient Furnace"), displays considerably more attributive than predicative adjectives. The second group ("Conceptual Pesticides", "Deadly Diseases", and "Cuz") shows roughly equal distribution, while the remaining four speech events show significantly more predicative than attributive adjectives.

Based on the distribution illustrated by table (4), the obvious next question is whether there is an explanation for the range of variability among these ten speech events. For instance, what characterizes the difference between the two extremes--"Bank Products" and "Hey Cutie Pie"? In order to answer this question fully, one would need to have an in-depth understanding of the interactions taking place in each of the ten speech events. Due to limitations of space, it is unfortunately not possible to discuss each speech event in detail, but Appendix B. gives a brief overview.

So, what is the difference between "Bank Products" (with 26.4 percent more attributive than predicative adjectives) and "Hey Cutie Pie" (with 38.4 percent more predicative than attributive adjectives)? One observation is related to social intimacy and formality level. "Bank Products" is a formal meeting of loan officers at a bank, discussing loan applicants. This is work-related interaction, and the participants are all employees at the bank. On the other hand, "Hey Cutie Pie" is an informal telephone conversation between a romantically involved couple who know each other very intimate. Thus the two ends of the continuum in table (4) are quite different, both in terms of formality level, as well
as the social relationship among participants. Therefore, one hypothesis could be that, in conversational interaction, the distribution of predicative and attributive adjectives depends on formality level and social intimacy; a greater number of attributive adjectives corresponds to increased formality level and social distance, while a greater number of predicative adjectives correlates with informal interaction among intimates. This hypothesis is in keeping with much sociolinguistic research that correlates social factors with language variation.

For this hypothesis to be true, in this case one would expect the speech events within each of the three groups in table (4) to be similar in terms of these social factors. However, this correlation unfortunately does not hold true within each of the groups. For instance, not all of the speech events in the high-predicative group are informal interactions among social intimates. "Hey Cutie Pie", "Actual Blacksmithing", and "Appease the Monster" are, but "Runway Heading" is a work-related performance evaluation. "Runway Heading" has two participants: one is training to be an air-traffic controller, and the other is his mentor. The trainee has just successfully completed a mission, directing the takeoff and landing of several aircraft. The mentor has observed this mission, and this speech event consists of the mentor giving feedback to the trainee. Thus "Runway Heading" is not informal conversation among social intimates, and the hypothesis needs revision.

Before continuing, however, it is important to understand the discourse-pragmatic functions that have been proposed for attributive and predicative adjectives. One approach has been articulated by two researchers from very different theoretical orientations. Thompson (1988:180, emphasis mine) characterizes the discourse-pragmatic functions of adjectives as follows: "in ordinary conversational language, Property Concept Words, or adjectives if we're talking about English, have exactly two functions, ... One, to predicate a property of an established discourse referent, and two, to introduce a new discourse referent." According to this view, predicative adjectives tend to discuss a property of an already-established referent, while attributive adjectives tend to help introduce new referents into the discourse. Thompson uses text counts of given and new referents in her data to establish this correlation. Ferris (1993) also claims that the pragmatic function of attributive adjectives is referent identification, while the pragmatic function of predicative adjectives is to add information to an already-identified subject. With this background in mind then, I would like to propose that the distribution of predicative and attributive adjectives in the different speech events in table (4) is due to the amount of shared referents among the interlocutors. Example (5) below is a brief snippet from the "Cuz" transcript, which is informative in terms of these adjective types.

(5) ("Cuz" IU 570-576)
@(H) (H) He had on a white suit,
Liza had on a um,
... a black suit,
and then he stands there and <VOX tells her how it's not --
.. it needs to be baggier here VOX>,
and they're analyz- --
(H) [They are so superficial],

Note the use of the attributive adjectives white and black to introduce the two suits into the discourse. Then, the predicative adjective baggier is used to discuss the already-identified referent of suit (the pronoun it), and then superficial to evaluate the people who were introduced earlier into the discourse.

In many cases, such as the "hey Cutie Pie" transcript, the social situation already suggests that the interlocutors have a great deal of shared knowledge about referents—simply by knowing each other intimately, having many of the same friends, and having shared many experiences. A short sample from this interaction appears below in (6).

(6) ("Hey Cutie Pie" IU 764-790)
JILL: I gave Keri a call,
   [(H)] and um,
JEFF: [Wow=].
   .. At Michael's?
JILL: ... Unhunh.
   .. And [she was] so m=iserable,
JEFF: [Wow].
JILL: cause she's studying.
   .. (H) But she only has two weeks left.
JEFF: ... (H) [Wow=].
JILL: [(TSK) Only two weeks] left, and,
   ... I was just thinking,
gosh,
   and then she has .. off, and,
   (H) she has vacation, and,
   .. %oh,
it just sounded so good.
JEFF: (TSK) What's she --
   Oh=.
She must be so excited though.
JILL: .. Well she sounded really .. bumed.
   .. Actually,
just cause school is so tough right now?
Here, both Jeff and Jill are talking about a mutual friend. Both know this person, and both know she is in medical school. All adjectives in this example are predicative, and all are commenting on the referent Keri (who was introduced into the discourse in the first line of the example, but is already familiar to both interlocutors), or on school (in the last line of the example, which is already a topic of discussion). This example illustrates that social factors (i.e. intimacy and formality level as discussed above) can lead to shared discourse referents—which in turn leads to a greater ratio of predicative to attributive adjectives.

In addition to social factors leading to more shared referents, situational context may contribute to this as well. Such is the case of "Runway Heading." In this speech event, the entire background of the air-traffic control mission is what constitutes shared referents, since both the mentor (Randy) and trainee (Lance) were present, and therefore the situation is familiar to both of them. (7), below, is a short excerpt from this speech event.

(7) ("Runway Heading" IU 308-333)

LANCE: ...(H) Yeah,
    I think I was a little bit rigid in my planning of that,
    cause I wanted to --
    had to plan,
    ... to get him out at that point.
    ... a=nd,
    .. I should've been more flexible and,

RANDY: ... But uh,
    you know (HX),
    .. everything else I saw,
    .. (H) you- your separation was,
    .. was really good this morning.
    I mean you really tightened em up.
    .. Maybe a couple times almost a l=ittle bit [too @tight=t.

LANCE: [<@ a little to tight @>.
    @@@ @@@@ (H)

RANDY: @@@@@
    Cause uh],
    (H) %--
    ... I don't know,
    y- a couple times you had,
    like one just barely at departure end,
    a jet at departure,
    and you cleared another jet for takeoff.
    .. (H) And it worked out great.

In this example, predicative adjectives are used to discuss and evaluate events from the training mission. This demonstrates that situational background can lead
to sharing of referents, and so is related to the distribution of predicative and attributive adjectives.

On the other end of the spectrum, speech events which contain a higher ratio of attributive to predicative adjectives involve a high number of referents being introduced into the discourse, as they are not shared by virtue of social intimacy (as in "Hey Cutie Pie") or prior context (as in "Runway Heading"). For instance, "Bank Products" is a meeting of loan officers at a bank. Each of the loan officers is presenting information about a loan applicant, and then the bank president is presenting information about new policies at the bank. None of this information is shared knowledge among all the participants, and so the point of this speech event is to make this information explicit. Similarly, in "Ancient Furnace", a heating/air-conditioning sales representative is at the home of a client, in order to assess the best type of furnace for the client's newly-purchased, soon-to-be-remodeled house. In this case, many referents--namely factors related to the design of the home and to the clients desires--are not shared knowledge between the two interlocutors. The third speech event in this group, "Fiesta Party", involves three neighbors having a conversation at a neighborhood party. These interlocutors are talking about their experiences in World War II, their children, and their houses--these personal experiences are not shared knowledge among the three participants. Thus this exchange involves the introduction of many referents which are not already shared background knowledge among the interlocutors.

In summary, interactions where participants are evaluating and commenting on shared referents tend to be heavy on predicate adjectives, while interactions such as narrative or conference, which involve the introduction of new referents into the discourse, tend to be heavier on attributive adjectives. It is easy to relate this observation back to the previous studies listed in (3) above. It is not surprising that Chafe's 1982 data tends to be heavy on attributive adjectives, since in the kind of conversational English in Chafe's study (predominantly personal experience narratives) the referents are generally not shared knowledge among the interlocutors. Similarly, since Thompson's 1988 data is predominantly interactional, with a great amount of shared referents among interlocutors, the high ratio of predicative to attributive adjectives is not surprising.

In conclusion, do my findings suggest that adjectives in English 'occur primarily' as modifiers within NPs? I would contend that they do not. My findings suggest that the occurrence of predicative or attributive adjectives in conversational English depends on the nature of the particular speech event. One finds a greater number of predicative adjectives when interlocutors are discussing referents that are shared knowledge among themselves (either based on social intimacy or situational context). One finds a greater number of attributive adjectives when interlocutors are introducing new referents into the discourse that are not shared background knowledge. My findings do not support the view that adjectives have a single 'primary function' in discourse. Frequency of attributive and predicative adjectives varies considerably based on the type of interaction.
But this variation gives us important supporting evidence as to the discourse-pragmatic functions of each type of adjective.

This study further suggests that when discussing a genre of language (such as conversation), one must consider additional factors such as type of interaction, which may influence the distribution of grammatical forms. It is not simply social factors, such as formality and intimacy, which lead to variation across speech events; discourse-level factors, in this case related to information flow and shared referents, may also contribute to language variation.

Finally, this study suggests that researchers should be especially conscious of interactional factors such as genre, social intimacy, and situational context, and should keep in mind that distribution of grammatical forms may be influenced by the type of interaction in the data. This paper demonstrates a specific way in which the distribution of grammatical forms is indeed shaped by discourse-pragmatic factors. Specifically, the occurrence of predicative versus attributive adjectives is shaped by the discourse-pragmatic factors related to the number of shared referents in a particular interaction.

Appendix A.

Summary of Transcription Notation

The transcription conventions used in this paper are fully described in Du Bois et al (1992, 1993). This is merely a brief summary for convenience of reference.

Each transcript line represents a single Intonation Unit.
Speaker labels appear in uppercase, and are followed by a colon.
Simultaneous speech is indicated by square brackets, aligned to show the beginning of each overlap.

. Final intonation contour.
, Continuing intonation contour.
? Appeal intonation contour.
-- Truncated Intonation Unit.
- Truncated word.
@ One pulse of laughter.
% Glottal stop.
= Prosodic lengthening.
.. Short pause
... Long pause
(TSK) Tongue click.
(H) In-breath.

<VOX VOX> Speech has unique voice quality.
Appendix B.

Brief overview of speech events

"Bank Products" An official board meeting recorded at a bank. The loan officers present details on clients seeking bank loans, then the bank president briefs the officers on new developments in bank policy.

"Fiesta Party" Three men in their late sixties, recorded while drinking at a neighborhood party. The three are acquaintances and are talking about wartime experiences, careers, their children, and their houses.

"Ancient Furnace" A heating/air-conditioning engineer is consulting with a customer about the best heating system for the customer's newly-purchased and soon-to-be-remodeled home.

"Conceptual Pesticides" Conversation and small talk among three friends who are preparing dinner together.

"Deadly Diseases" Interaction among three friends, discussing recent travels, vitamins, mutual friends, and pets.

"Cuz" Interaction between two cousins who are gossiping and catching up on each others' lives.

"Appease the Monster" Events after a family birthday dinner; opening gifts, talking about mutual acquaintances, and small talk.

"Actual Blacksmithing" Face-to-face interaction between two near strangers. One is a student of equine science and is telling the other about her classes and about life on a ranch. The student's mother also joins the conversation, talking about the weather and family friends.

"Runway Heading" Work-related interaction with two participants: one is training to be an air-traffic controller, and the other is his mentor. The trainee has just successfully completed a shift, with his mentor observing, and the recording is of the mentor evaluating the shift and giving feedback on the trainee's performance.

"Hey Cutie Pie" Very intimate telephone conversation between a romantically involved couple in their early twenties. Topics include a possible pregnancy, mutual friends, and small talk.

References


Notes

1 I would like to thank Jack Du Bois for access to these ten speech events from the Corpus of Spoken American English, and for providing me invaluable experience working with spoken language. I would also like to thank Susanna Cumming and Sandy Thompson for their helpful comments on this paper.

2 In recent personal communication, Chafe has brought to my attention the results of a later, more in-depth study (Chafe and Danielewicz, 1987). Although the published version of this paper does not address the issue of attributive and predicative adjectives, Chafe provided me with the following unpublished figures. Of the 562 total adjectives in the database of 13,327 words of conversational English, 278 are attributive and 284 predicative--giving a percentage difference of 1.0 more predicative.

3 Chafe lists the distribution in terms of occurrences per thousand words: 33.5 attributive adjectives, and 15.8 predicative. Since the total size of the database is given as 9,911 words, I have calculated the actual occurrences for ease of comparison among studies using the following proportions. For attributive: 33.5/1000 = A/9911; for predicative: 15.8/1000 = P/9911.

4 Thompson's study demonstrates that some attributive adjectives do not "modify."--specifically, modifiers in NPs with relatively non-informational heads, and adjectives in predicate nominals. Since my study is concerned with the syntactic functions of attributive versus predicative adjectives, and not with the semantic function of modification, I have followed traditional definitions and included such non-modifying attributives in the class of attributive adjectives, since both occur attributively within the NP. Although outside the scope of this paper, I believe it would be a worthwhile study to examine the functional characteristics of such non-modifying attributive adjectives.

5 The actual total word count for Thompson's transcripts is unavailable. However, since Thompson gives the total number of adjective tokens as 308, based on the distribution in my own data, I would estimate that Thompson's corpus would contain approximately 8,000 words.