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The function and content of relative clauses in spontaneous oral narratives
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1. Introduction
This article discusses the various discourse functions of relative clauses in spontaneous oral narratives. The analysis is restricted to bona fide relative clauses, those which are constituents of a noun phrase, as in

(a) And there's this sort of [1.75] Latin .. looking .. middle-aged man .. who's [.95] UM [.75] climbs up the ladder, [1.4] UH | that's leaning against a tree,
(b) Whoever stole the pears is down there.

but not relative clauses referring to states or events, as in

(c) [.55] and made off with the whole basket of pears. [1.3] TSK .. which the man, [2.5] the pearpicker .. man, did not notice.

(The transcription conventions used in the cited data are explained in Table 1 below.)

This paper will demonstrate that there are two functional types of relative clauses in spontaneous oral narratives, which I call informative relative clauses, (those which assert information in much the same way as declarative independent clauses, about a noun phrase referent), and non-informative relative clauses (those which are more integral to the description offered by a noun phrase). This distinction is similar to but not the same as the traditional restrictive/non-restrictive distinction.

Since informative relative clauses assert information much as independent clauses do, we might expect that they can assert any sort of information that independent clauses can assert. This is not the case. It seems that informative relative clauses are more restricted in what sorts of information they can assert. On the basis of this finding, a more general hypothesis about the function of relative clauses is presented.

The data presented in this article come from narratives that were descriptions of a six minute color and sound movie. This movie was shown to twenty students at the University of California at Berkeley in groups of about five. They were interviewed one at a time, five to twenty-five minutes after the showing of the movie. The interviewer, claiming not having seen the movie, asked them to tell her "what happened in the movie".

Below is a transcription of one of the narratives which contains good examples of all the functional types of relative clauses occurring in the corpus.
Table 1
Transcription conventions

[n] A silent pause of n seconds duration.
.. A break in the flow of sound too short to be a measurable silence.
, A final intonation contour typical of intrasentential clause ends.
. A final intonation contour typical of sentence ends.
; Glottal stop.
-- Indicates the preceding segment was pronounced with unusual length.
` Occurs in syllables that are peaks of pitch.
^ Occurs in syllables that are peaks of volume.
/text/ Indicates uncertainty in the transcription.
TEXT Indicates a false start or non-lexical pause fillers (e.g. UM).
aY Indicates an indefinite article pronounced /ey/.
thE Indicates a definite article with the vowel pronounced /i/.
{} Used to separate comments and descriptions of sounds from the transcription itself.

A sample narrative

(1) I'll try.
(2) [.5] U--M [.6] TSK [.2] Well,
(3) [.25] there was-- [.25] a ma' n,
(4) [.2] who was picking pears,
(5) [.55] A--nd [.9] it was in aY UH [2.2 ... TSK ... ] large open field,
(6) it wasn't a pear orchard,
(7) [.2] or anything like that.
(9) [.4] Something that I noticed about the /movie/ particularly unique was that the colors .. were [.35] just [.5] ve'ry stra' nge.
(10) [.2] Like [.3] the green was a [2.2] inordinately bright green,
(11) [.55] for the pears,
(12) .. and [.25] ] these colors just seemed a little [.5] kind of bold,
(13) almost to the point of [1.15] being artificial.
(14) [.6] TSK [.1] A--"^nd [.75] he--^ [.35] was going up and down
the ladder,
(15) [.9] TSK .. picking the pears,
(16) [.25] and [.25] depositing them in [.35] three baskets,
(17) [.7] that were down below.
(18) [1.2 ... TSK ... ] A--"^nd [.1.95] there's .. one .. sequence
right there THAT [1.15] that I've forgotten.
(19) [2.5 ... TSK ... ] O"h.
(20) [.3] A .. ma'n with a goat [.9] TSK comes by,
(21) [.75] a--nd [.15] you can kind of hear the goat mewing in the
background,
(22) [.15] and they get up,
(23) [.2] and approach,
(24) [.2] and just kind of walk off.
(25) They don't really seem to have too much to do,
(26) [.6] with .. what's going .. on.
(27) [.3] A--nd [.7] the man goes back up into the tree,
(28) [.3] to pick some mo're pears.
(29) [1.9 ... TSK ... ] Along comes-- .. a young boy,
(30) .. about seven years old,
(31) [.2] eight years old,
(32) [.6] on a bicycle
(33) that's way too big for him,
(34) and he's riding it through this great open field.
three baskets of pears,
(36) and then sees this man up in the [.5] tree,
(37) and decides [.45] that he'd like some pea'rs.
(38) And at first looks like he's going to take one or two.
(39) [.6] then decides that he'd [.15] much rather take a whole
basket,
(40) [.55] puts the basket on the bike,
(41) [.9] TSK a--nd .. kind of struggle /??/
(42) cause it's much too big for him.
(43) and the bike is mu'ch too big for him.
(44) [.8] a--nd .. gets on the bike,
(45) and [.2] rides off.
(46) [1.85 ... TSK ... ] The'n-- [.2] he's riding .. across this
.. great [.25] expanse,
(47) and [1.15] gi'\^
(48) [.4] riding a bike in the opposite direction.
(49) [.55] and [.4] you can see them riding [.65] to'wards each
other,
(50) and you wonder if there's going to be a colli'sion.
(51) [.7] But .. instead they just ... kind of .. brush .. by each
other
(52) and she knocks the hat that he's wearing off on the grou'nd,
(53) [1.4 ... TSK ... ] a--nd [1.7] he's .. UM [.35] kind of look-
ing back [.2] at her .. and the hat,
looking back [.2] at her .. and the hat,
(54) [.2] and doesn't see that he's going to run into a rock,
(55) .. which he does,
(56) [.25] and the pears all [.45] spill on the ground,
(57) and he falls down
(58) and he skins his knee or something.
(59) [.4 ... TSK ... ] A--ND [.1] and the^n you^ hea^r this--
[.7] kind of rhythmic .. thud/ding/ [.35] sound,
(60) [.55] a--nd [.4] and you look u`p,
(61) [.3] or the boy looks up.
(62) [1.1] TSK .. A--nd [.45] there are three [.15] o^ther boys
standing there
(63) one of them has a paddleball,
(64) [.4] type thing
(65) which was /?making the?/ sou`nd,
(66) [.18] a--nd they look [.25] kind of ominous at first,
(67) .. like they might [.5] steal his pears
(68) and run off or something
(69) but i^nstead they [.15] help him [.45] pick up all the
pears,
(70) [.6] one boy goes over
(71) and helps him brush-- [.75] his pants off,
(72) /and THEN [.5] then/ another one [.35] /I don't know/ picks
up the bicycle I think,
(73) [.15] or they just all put the pears back in the basket,
(74) [.2] they set the basket back on the bike,
(75) AND [.3] and /THEY G/ [1.25] the^y go on their way
(76) walking down the road
(77) /and/ he rides .. off.
(78) [.7] A--nd they come across his ha^t,
(79) .. that he neglected [.55] to pick up
(80) he forgot the hat.
(81) [1.2] So one of them whistles .. to him,
(82) [.5] he was saying,
(83) [.15] "Hey you forgot your hat",
(84) and [.5] he stops,
(85) and [.3] one of the .. three boys brings the hat back,
(86) [.9 ... TSK ... ] A--nd [.85] he gives TH [.4] that boy three
pears.
(87) [.65] TSK FO--R [.2] you know kind of as a gesture of thanks.
(89) [.6] A--^nd the boys keep walking back [.3] the way the first
boy ca^me.
(90) [1.35] Meanwhile .. the man who's picking pea^rs,
(91) [.35] comes down from the tree,
(92) [.35] and starts emptying [.5] his .. UM [.95] load of pears
into [.8] one of the two /remaining/ baskets/,
(93) [.75] he no^tices that the third basket is gone.
(94) [1.1] A--nd [.3] THE [.6] /at/ .. just about this time,
(95) he's just kind of looking A LITTLE [.55] /UM/ [.55] kind of
visibly a little upset.
(96) [1.3 ... TSK ... ] A—nd [.35] these three boys [.9] go walk—
ing by,
(97) and they each have a pear in their hands,
(98) so he's .. kind of looking at them,
(99) trying to make a connection
(100) wondering [.35] how they got the pears,
(101) .. and .. if they were his pears,
(102) .. /you see/ how this is just all WHAT [.6] what you're pro—
jecting on the man.
(103) [1.1] And [.75] I think that was i`t.
(104) [.75] /It was nea`t/.

2. The functional types of relative clauses in narratives

2.1. Informative relative clauses

An informative relative clause is one which asserts informa—
tion, much in the way a declarative independent clause does, about
a noun phrase referent. The relative clauses in lines 4, 17, 33,
65, and 79 are informative relative clauses.

The relative clause in line 79 is attached to a noun phrase
whose referent, the bike boy's hat, was already known to the
listener. (It was introduced in line 52.) This relative clause
adds to the listener's knowledge about the hat, that the bike boy
had forgotten to pick it up. This same information could have
been expressed as an independent clause. That is, lines 78 and 79
could just as well have been

(105) And they come across his hat.
(106) He had neglected to pick it up.

Let us call this replacement of a relative clause with an indepen—
dent clause following the clause in which the original relative
clause was syntactically embedded the "separability test".

The fact that an informative relative clause is used in much
the same way as an independent clause is evidenced in "false
starts". For example, another subject narrated part of the movie as

(107) [.75] U--M [.75] No--w [.65] TSK he's dri`ving along this
road
(108) THAT'S UH it's not paved,
(109) it's just sort of a dirt road,

It seems that the speaker was going to express the information in
line 108 at first as a relative clause, as evidenced by the false
start "that's". Then she changed her mind and decided to express
it as an independent clause.

The relative clauses in lines 4, 17, 33, and 65 are different
from the one in line 79 in that these relative clauses are
attached to noun phrases which refer to a person/thing not previously known to the listener. Nevertheless, they assert information about the noun phrase referents much in the way a declarative independent clause would; they pass the separability test. Lines 4, 17, 33, and 65 could have been expressed as 110, 111, 112, and 113, respectively.

(110) he was picking pears,
(111) they were down below,
(112) it's way too big for him,
(113) it was making the sound,

2.2. Non-informative relative clauses

I have found it useful to distinguish between two types of non-informative relative clauses, identificatory relative clauses (those which give information that is necessary to identify a referent previously known to the listener), and specificatory relative clauses (those which specify the nature of a new referent by mentioning a defining property of the referent).

2.2.1. Identificatory relative clauses

The relative clause in line 90 is an example of an identificatory relative clause. At this point in the narrative, the speaker wants to make reference to someone the listener already knows about, the pear picker. The speaker knows the listener already knows about the pear picker because the speaker has explicitly mentioned the pear picker to the listener, beginning with line 4. Furthermore, the speaker wants the listener to realize it is the pear picker whom she is going to make reference to. To do this the speaker must refer to the pear picker with a description that (in context) is unique to the pear picker.

Now, if the speaker were to refer to the pear picker as simply "the man", the listener might not know if the speaker were referring to the pear picker or to the man who came by with goat. To make the reference unambiguous, the speaker has added the relative clause "who's picking pears". This relative clause suffices because (1) the information the clause expresses is information the listener knows about the pear picker (the speaker explicitly mentioned this information in line 4), and because (2) of all the men that the speaker is likely to be referring to, only the pear picker could be described as "picking pears".

This relative clause gives information that serves to identify which particular person the speaker is referring to. It is an identificatory relative clause.

Notice that this relative clause fails the separability test; lines 89 and 90 could not be adequately replaced with

(114) Meanwhile the man comes down from the tree,
(115) he is picking pears,
The reader can see that an identificatory relative clause is an integral part of the noun phrase in which it occurs. Because of this, the whole noun phrase (with the identificatory relative clause) could be replaced with some other noun phrase which has no relative clause and still have roughly the same sense. In the present example, the speaker could have referred to the pear picker as simply "the pear picker", as did many of the other narrators of this movie.

The relative clause in line 89 is identificatory; it identifies in which direction the three boys walked. Notice that neither the referent of the noun phrase (the direction) nor the information mentioned in the relative clause (that it was the direction from which the bike boy came) were previously mentioned in the narrative. How can I say that some previously unmentioned information is used to identify a previously unmentioned referent?

Although neither are explicit in the preceding portion of the narrative, they are both implicit. The listener can infer from the fact that the boy arrived on the scene that there must be some particular direction from which he arrived. Therefore this inferred information can be used to identify this inferred referent. The relative clause in line 89 is identificatory.

2.2.2. Specificatory relative clauses

The relative clause in line 9 is an example of a specificatory relative clause. This clause is attached to a noun phrase whose referent was previously unknown to the listener; it was not previously mentioned explicitly, nor could it have been inferred by the listener. The fact that the speaker expressed this referent with an indefinite noun phrase is evidence of her belief that the listener did not previously know about it. Therefore this clause could not be an identificatory relative clause.

This relative clause at first seems to assert information about the noun phrase referent, but it does not seem to be an informative relative clause because it fails the separability test: line 9 could not be adequately replaced with

(116) Something about the movie particularly unique was that the colors were just very strange.
(117) I noticed that.

Although it expresses information about a referent previously unknown to the listener this information is essential to understanding what the referent is. This is why line 117 differs from line 9 in a way that lines 105-106 do not differ from lines 78-79.

There is intonational evidence that relative clauses like the one in line 9 are not informative. Most clauses in the twenty narratives are separated from each other by either "comma intonation" (the rising intonation contour typical of intrasentential clause ends) or "period intonation" (the falling intonation contour typical of sentence ends). Most of the relative clauses that clearly pass the separability test (such as those which we've
already considered informative) are separated off by comma intonation. Relative clauses that are attached to indefinite noun phrases and which do not clearly pass the separability test (such as the one in line 9, which we've classified as specificatory) are never separated off by comma intonation (except when issued as afterthoughts). Furthermore, relative clauses that are attached to definite noun phrases and which fail the separability test (i.e. those which we've called identificatory) are never separated off by comma intonation, except when issued as afterthoughts. This seems to indicate the integrality of non-informative relative clauses to their noun phrases.

The relative clauses in lines 26 and 102 are also specificatory. In fact, any relative clause in which the noun phrase head is subsumed by the relative pronoun is specificatory. (Because the noun phrase head is subsumed by the relative pronoun, it is not possible to apply the separability test.) In such cases, the relative clause specifies the noun phrase referent by giving a defining property of the referent, one without which that referent would not be itself.

2.3. Problematic cases

The relative clause in line 52 is hard to classify as to its functional type. It cannot be identificatory because the noun phrase to which it is attached does not refer to a thing which the listener already knows about. One possibility is that it is an informative relative clause; it seems to express information about the hat. However, it does not pass the separability test: line 52 cannot be adequately replaced with

(118) and she knocks a hat off on the ground,
(119) he was wearing it,

The remaining possibility is that it is a specificatory relative clause. However, the quality it expresses (the quality of being worn by the bike boy) does not seem to be a defining property as were the qualities expressed in the relative clauses already classified as specificatory.

Notice that the noun phrase to which it is attached it definite and that it refers to something which the listener did not previously know about. Chafe (1976) has said that definiteness signals to the listener that the description given by a noun phrase is narrow enough to specify a unique likely referent. In this case, when the listener hears "the hat that he's wearing" the listener constructs a new referent in her/his mind, establishing it as that one hat which the bike boy is wearing. In this way, this relative clause does give a defining property of the hat. So it seems then that this relative clause is specificatory.

The relative clause in line 18 is attached to an indefinite noun phrase; therefore it does not refer to a referent already known to the listener and hence it cannot be identificatory. It seems to pass the separability test, at least better than the
relative clause in line 9 did (see 116-117 above), i.e. line 18
could be replaced fairly adequately with

(120) And there's one sequence right there,
(121) but I've forgotten it.

So it seems to be informative. But this relative clause doesn't
seem as semantically independent of its noun phrase as did the
truly informative relative clause in line 4. It is not clear
whether the information about the movie sequence (that it was for-
gotten) was intended by the speaker to specify an defining pro-
erty of the referent or to add information about the referent.
The fact that it is not separated off from the rest of the clause
by comma intonation would be evidence that it is specificatory.
But the fact that the relative clause began with 1.15 seconds of
silent pausing (quite a bit), indicates that the speaker may have
processed the information conveyed in the relative clause as a
separate piece of information. This suggests that it was not such
an essential property of the referent as we would expect with a
specificatory relative clause. The function of this relative
clause is ambiguous.

2.4. Summary
First we have informative relative clauses, those which
assert information about a noun phrase referent, which the
listener may or may not have already known about. Second we have
identificatory relative clauses, those which use information that
the listener already knows to identify a noun phrase referent
which the listener also already knows, either because it was
explicitly mentioned by the speaker, or because the listener was
able to infer its existence. Third we have specificatory relative
clauses, which express a defining property of a noun phrase
referent previously unknown to the listener. Some relative
clauses may seem to be somewhat specificatory and somewhat infor-
mative because it is not clear whether the information expressed
therein is intended to be a defining property or just additional
information. Specificatory and identificatory relative clauses
are similar in that they are integral parts of a noun phrase
description, whereas informative relative clauses express informa-
tion that could just as well have been expressed in an independent
declarative clause. The placement of comma intonations supports
this dichotomy.

3. The content of relative clauses in narratives
So far I have examined the functional types of relative
clauses in narratives. Now I turn to the sorts of information
that can be used in each of these functional types.

In this section I will show that non-informative relative
clauses, as a mere consequence of their non-informative function,
can only use certain information to identify or specify a noun
phrase referent. Then I will show that informative relative
clauses unexpectedly have this constraint too. In accounting for this, I present a more general hypothesis about the function of the relative clause in narratives, one which applies to both informative and non-informative relative clauses.

3.1. The content of non-informative relative clauses

An independent clause can be used in all of three logically possible temporal ways in a narrative. First, it can be used to express a state or event that is simultaneous with the state or event last asserted. For example, line 98 expresses an event that is simultaneous with the one expressed in line 97. Second, an independent clause can be used to express a "next" state or event. For example, line 75 expresses an event that temporally follows the one expressed in line 74. Third, an independent clause can be used to express a state or event that temporally precedes the state or event last asserted. Because a narrative expresses a memory as a temporally ordered sequence of events (Labov, 1972), this seems to occur only when the speaker brings a character "on stage" and mentions some earlier event s/he was engaged in "off stage". There are no examples of this in the sample narrative above, but another subject, in narrating when the three boys walk off towards where the pear picker is, said

\[(122) [\ldots] \text{are walking back towards \ldots} \text{the pea'}r \\
\text{picker's } [\ldots] \text{area,}
\]
\[(123) [\ldots] \text{a--nd } [2.9] \text{just eating their pears,}
\]
\[(124) \text{walking along,}
\]
\[(125) \{\text{laugh}\} [\ldots] \text{a--nd } U--H [2.55] \text{he has just clambered down,}
\]
\[(126) \text{from his ladder,}
\]

The independent clause in line 125 expresses an event that precedes the event expressed in line 124.

An identificatory identifies a noun phrase referent by mentioning a state or event that the listener associates with the referent. Since the listener already knows about this state or event, it must be one which is either previous to or simultaneous with the last asserted state or event. For example, the relative clause in 89 identifies a particular direction with a previous event. The relative clause in 90 identifies the pear picker with a quality simultaneous with the last asserted event. An identificatory relative clause cannot mention a "next" event because the listener does not already know the "next" event. If a relative clause were to mention a "next" event, it would assert it; it would be informative.

Similarly, a specificatory relative clause uses a state or event simultaneous with or previous to the last asserted event as a defining property of the noun phrase referent. For example, the relative clause in line 52 specifies the nature of the hat by mentioning a quality which is simultaneous with the last asserted event. A specificatory would not use a "next" state or event, i.e. one which happens in the story after the referent is
introduced.

3.2. The content of informative relative clauses

Informative relative clauses, as previously stated, assert information much in the same way as independent clauses. We might expect that informative relative clauses can assert any sort of information that independent clauses can assert. In fact, Syder and Pawley (forthcoming) have claimed that the difference between lines 127 and 128

(127) I'm going with a girl, and you'll meet her tonight.
(128) I'm going with a girl, who you'll meet tonight.

is merely due to a difference in the syntactic strategy used by the speaker. The example given above in lines 107-109 is evidence of this. In that example, the speaker presumably wanted to express the information of line 108 first as a relative clause, but then decided to express it as an independent clause. Syder and Pawley would say that this was a switch from the "subordinating" to the "adjoining" strategy.

Now if informative relative clauses function in the same way as independent clauses, we would expect to find them expressing a simultaneous state or event, a "next" state or event, and a preceding state or event. The informative relative clause in line 79 expresses an event previous to the last asserted event, and the one in line 17 expresses a state simultaneous with the last asserted event. There are no examples of an informative relative clause expressing a "next" event in the sample narrative above, but another subject said

(129) [1.4] A--nd [.6] the boy with the ping-pong paddle brings the hat to the bicycle boy,
(130) [.95] who gives him [.45] three pears.

However, examples of informative relative clauses expressing the "next" event were rare in the twenty narratives. Out of the 53 informative relative clauses in the corpus of narratives, only 5 expressed a "next" event. Furthermore, all 5 examples occurred in only 3 of the 20 narratives.

Now, the scarcity of informative relative clauses asserting the "next" event could be merely a result of the smallness of the corpus of data. That is, perhaps we would have found such relative clauses in the speech of all our subjects if we had had a larger sample of their speech. The rest of what I have to say about relative clauses, however, supposes that such is not the case, that most (or at least some) speakers of English do not use relative clauses to assert the "next" event in narratives.

To put it briefly: although informative and non-informative relative clauses express information for different reasons, they seem to be restricted to expressing the same type of information. For non-informative relative clauses, this "restriction" is a mere
consequence of their function. Why then do informative relative clauses have this restriction?

3.3. The general function of relative clauses in narratives

For those speakers who have this restriction on informative relative clauses, it seems that relative clauses of whatever specific function are used to construct a "picture" of the noun phrase referent at a particular point in time in the narrative. Therefore this picture may include such things as (1) events in the history of the referent, (2) events that the referent is presently engaged in, and (3) static qualities of the referent. Even when the relative clause asserts information about the referent, it can only assert information that pertains to the referent at that point in the narrative.

A possible explanation is that the informative function of relative clauses developed after their non-informative function. This has some plausibility since the information expressed in informative relative clauses need not be expressed in that form, while the information expressed in non-informative relative clauses cannot always be expressed in another form. (For example, the relative clause in line 9 could not easily be paraphrased as a prenominal adjectival modifier.) This is to say that relative clauses are necessary in their non-informative function, but not in their informative function. Perhaps then at one time, relative clauses only had a non-informative function. But when relative clause function was broadened to include informativeness, their content was not broadened to include "next" events. Apparently some speakers have lost this vestigial restriction; three of our twenty subjects clearly have lost it.

4. An old hat revisited

Now, a linguist doing armchair research might have judged a relative clause like the one in line 130 to be grammatical. It is not obvious from armchair introspection that it is unusual for a relative clause to assert the "next" event in a narrative. Only by looking at real discourse could this restriction in the language have been discovered. The lesson is that we must verify armchair hypotheses with evidence from natural discourse. This point may seem old hat, but at least two papers in this very volume deal with discourse and rely on artificial data!

Notes

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References


Syder, Francis and Andrew Pawley (forthcoming) English Conversational Structures.