ON THE DERIVATION OF A CONVERSATIONAL MAXIM

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Summary.

A conversational maxim of relation -- a principle of connectedness of text -- is derived from a more general & independently motivated principle governing the interpretation of sentences in context. This principle -- PIM, principe d'interpretation minimale -- that sentences are interpreted in the most redundant way possible, is thus seen to be fundamental, & a general argument is given that the statement of, & the effective semantic procedures lie in the interpretive (toward semantic structure) & not in the generative (away from there) direction.

Text.

My purpose here is to show that a conversational maxim -- believed to be a maxim for the speaker in well-formed conversation -- is in fact only a special case of a much more general rule. This more general rule, moreover, is a rule for the interpretation of sentences. This leads to questions about conversational maxims & the nature of the relation between syntactic form & semantic structure.

We shall 1st argue for a narrow & specific conversational maxim; a connectedness principle according to which texts & conversations should exhibit a quality of connectedness. It appears that this covers the ground of Grice's relation maxim: "be relevant".

Grice[1] formulated several maxims for the speaker, which may be assumed of a speaker in usual circumstances. Together with the utterance of a sentence, they give rise to his 'conversational implicatures'. They are grouped under 4 headings: quantity, quality, relation, & manner. We are concerned here mainly with the 3°, but shall have some comments later on the 1° 2. The 4° group, "avoid obscurity", "avoid ambiguity", "be brief" & "be orderly", like the 3° "be relevant", are extremely vague & unformalizable stated as they are, as maxims for the speaker.

To illustrate their operation with the 1st 2 groups, consider one saying "I think it is raining" instead of "It is raining". Clearly this is less informative of the state of the world (though more informative about the speaker) than what could have been said, violating the quantity maxims in one direction or the other (be informative enough, & only enough), & it also violates brevity. Hence the quality maxim must be dominant here, "do not say that which you believe to be false or for which you lack adequate evidence." It follows that the speaker does not know or have adequate evidence that it is raining.

We propose here as a conversational maxim, a connectedness principle. A simple statement is "stick to the subject" or "don't change the subject". Thus, "you were rather drunk last night. ... Say, it's rather cold today, isn't it?" is an obvious violation of this principle. That some relation maxim is operating here, is beyond question.

While the above statements of this maxim suggest that there is some sort of subject or topic that one might alternatively stick to or change, these topics or subjects turn out to be illusive, However, these injunctions are uttered when there is little overlap of semantic content with the preceeding context. We shall understand this connectedness principle in the following way; "there should be a high degree of overlap with preceeding context.

It is true that many cases where these injunctions are uttered can be characterized by one person refusing to continue in a direction (topic) which is unpleasant to him. However, it is also common experience that a conversation between 2 or more people may wander exceedingly. Quite often, in fact, it takes considerable effort by the participants to reconstruct what they discussed or how they arrived at 1 topic from a quite dissimilar topic 15 minutes earlier. And in such a reconstruction, one usually finds 3 or 4 other equally dissimilar topic-areas which were passed through.

In such cases, one seldom even perceives a "change in topic", even though the topic does change in a rather radical way. On the other hand, when the topic of a conversation does not change, the conversation will often be judged as boring. We may conclude that what is avoided is not changes in topic, but rapid changes in topic; what is excluded by this maxim is a sentence with little or no overlap with the preceeding context.

This lack of overlap will be found in all cases of objectionable topic change, but there are numerous cases of gradual topic change without problem. Moreover, with rapid change of topic, misunderstanding may arise, as we shall see below.

It is however not true that the human mind, or human language, cannot accept rapid changes in topic. Rapid changes can & are often made, but must be accompanied by a marker of the change.

There are numerous devices to indicate gross changes of topic. In spoken English, we have such things as "Say, ..." or "Did you know that ..." to mark a big jump. In more formal English, there is "Incidentally, ..." or "By the way, ..." which carry an implicit promise to return to the subject at hand after a short interruption, which is often not fulfilled in conversation.

Temporary topic shifters like by the way both mark that   overlap need not be found,

& also that the following segment will not serve as a context later on for overlap — i.e. it is a segment probably slightly overlapping, but which can be forgotten later without loss.

In more formal English, we find complete shifters of topic, "to change the topic, ..." or "speaking of .., ...". These instruct the addressee to seek no overlap, here or later.

The existance of these markers shows that one can change the subject, but if so, that change should be formally marked. Thus we can reformulate this principle as "stick to the subject unless you indicate otherwise" or "changes in subject should be overtly marked". This may be seen as a refinement of Grice's relation maxim "be relevant", but may also be seen as related also to his manner maxim "be orderly", in so far as it entails marking changes.

However, given that conversations can & do wander, changing the subject gradually, without any annoyance or hinderance, or even awareness, to the participants, we must revise our notion of relevance to: relevance to the immediately preceeding context, & the connectedness principle to "rapid changes in the subject must be marked".

To say that there is a topic or subject throughout a conversation is too strong. Nevertheless, sentences must bear some connectedness (semantic overlap) to their preceeding context. I propose that this is all that can & should be said in the area of Grice's relation maxim, "be relevant".

Elsewhere[2] I have proposed a principle of semantic interpretation, PIM. This principe d'interpretation minimale disambiguates words, constructions, pronouns, &c, based on selecting the meaning which adds the least to the prior semantic context. Thus "flying planes can be dangerous" is not ambiguous in a context "don't fly airplanes. __" or in a context "watch out for airplanes. __". In each case, there is only 1 way to interpret this sentence with a minimal addition to the preceeding semantic context. Similarly, some word disambiguations can be explained only by PIM. For example, the word light in the sentence "it is light" is not ambiguous in contexts like "how heavy is it? __" or "is it still dark? __" because the semantic components of only 1 sense will overlap sufficiently with the preceeding context in each case.

This principle PIM may seem ontologically weak, as it is claimed to be true only in cases of good communication — i.e. cases of communication where the idea is transmitted without ambiguity. PIM can be easily falsified by constructing a text where the reader is left in doubt as to what is said. This appears circular at first glance. It is not, however.

Good communication (or well-written text) is empirically identifiable. In such cases, PIM is met. Even more easily identifiable is poorly written text, poor because it leaves ambiguities in the reader's mind. In most if not all such cases, it appears, PIM is violated. Such cases can be rendered non-ambiguous by the addition of enough words to disallow all but 1 way of integrating (overlapping) it into its preceeding context with a minimum of new information.

Lastly, as it states a condition necessary for good (or even adequate) communication, it makes strong predictions about what speakers or writers will use (pronoun, noun+adjective+definite, or just noun+definite), given a prior context & an idea to express. These predictions are easily tested, & it is thus empirical.

Assuming then that this principle PIM does exist, it is easy to see why large changes in the topic must be marked. If a jump of topic is not marked, the initial sentence in the new topic will be interpreted in such a way as to add the least possible to the preceeding. This will generally lead to misinterpreting it, if there is an overlap possible. Or, if the addressee cannot find overlap, he must draw upon scenarios[3] & belief-structures[4] that the speaker might be assuming, failing which he perceives a "lost" feeling, as when a speaker appears to say something completely incoherent, "it is raining. moreover, elephants are big."

The markers of topic change simply indicate to the addressee that he should not use PIM in interpreting what follows. They are necessary whenever the following material might be open to a different interpretation when PIM is applied. The existance of PIM requires that topic change markers exist & be used in this case.

Moreover, as one often does not know in advance exactly what words or constructions he will use, topic change markers are a useful heuristic device to avoid potential misinterpretations, when making a rapid topic change. Indeed, when such a marker is approprite, but missing, the addressee may (& will) search for some interpretation of the following sentence which will overlap to at least some degree. In such a case, it is a kindness to the addressee (& part of the notion of good communication) to indicate that such a search is unnecessary.

The existance & use of topic changing markers is thus required by PIM. In fact, the whole prohibition of rapid topic change (unless marked) is simply a reflection of PIM. With no marker, the listener will assume, by PIM, that each sentence overlaps seriously, in a maximal way, with its preceeding context. Hence, a speaker — who presumably talks to be understood by someone — must construct each sentence so as to overlap. This is precisely what we have seen to be the interpretation of the connectedness principle or relation maxim.

Thus this relation maxim can be derived from PIM. However, PIM cannot be derived from this maxim. PIM is much more general, disambiguating even pronouns based on collocated verbs, for example. In the following example, *she* is understood as neither the closest female antecedent, nor the subject of the preceeding sentence,

in the absence of other context. "Mary told Susan that Betty was coming. Unfortunately, she misunderstood it." Rather, she is understood, in accordance with PIM, as referring to whatever allows the greatest overlap with the preceeding context, here to misunderstand overlaps in meaning with to tell (which is something like 'to cause to understand, by speaking'). In such an example, a change in the verb in the 2° sentence causes a change in the interpretation; if it were come or arrive, she would refer instead to Betty, while if the 2° sentence were "she said it softly", she could only refer to Mary.

Thus the relevance maxim can be seen as a reflection for the speaker of a principle for the interpretation (disambiguation) of sentences. It is perhaps for this reason that the relevance maxim has been resistant to formalization. Happily however, the interpretation principle PIM is formalizable.

Because the connectedness principle can be derived from PIM, but PIM cannot be derived from it, & because PIM is formalizable, but not apparently any relevance maxim, we may conclude that it is so derived, & that it either has no independent existence, or possibly has existence only as a heuristic for the speaker.

Moreover, it does not seem possible to state PIM for the speaker. In the pronoun case above, stated for the speaker, it could be stated only as a rule for when a pronoun could be used in place of a more extensive description or name. Even when so stated, it is still an interpretive rule; a pronoun can be used if no ambiguity will result, taking ambiguity to be measured relative to the verbs or other things collocated with the prospective pronoun. A more directed procedure is probably the case: try integrating the projected sentence (with pronouns) into the preceeding context's semantic structure. If that results in an undesired meaning, then find or construct a more complete description. When this is executed in real time, it may result in the post-sentence nominal (extra-position or right displacement) which is not uncommon in spoken language, "he came yesterday, the tall boy, that is".

Although we have concluded that this 1 maxim is derived from an interpretive principle, not all maxims are interpretive rules. One of Grice's quantity maxims, "do not make your contribution more informative than is required" is probably better formulated as McCawley's least-effort principle.[5] What is minimized is not the transfer of unrequired information, but something like the number of lexical items or perhaps the number of syllables. Speakers are generally lazy. Either formulation, however, is clearly describing speaker behaviour, though to call it a maxim seems a bit inappropriate if McCawley's version is correct.

I note however that as a principle describing speaker behaviour, this 'maxim' is available for use by a listener to discover more information than is overtly encoded. By studying what a person could have done (or said) but did not, one can make more or less sure conjectures as to the cause(s) of avoidance. This maxim seems to be no more than that. It is seldom used by a speaker to transmit more information than is encoded.

The other quantity maxim, "make your contribution as informative as is required", is in many cases more a maxim for proper behaviour in the social interaction, question-answer. When one executes the question performance, the addressee is obliged to give an answer, by the rules of the social pact. "Where are you going? ... Out" violates this maxim as stated, but is adequate to satisfy the social ritual initiated by the question. This maxim, then, may be derivative from the meanings of performative elements, like question, command, &c. They are only linguistic expressions of socio-linguistic rituals; it is these rituals which define the proper behaviour of the participants, in precisely the same way that performative expressions like "I promise ..." or "I pronounce you man & wife" do.

Grice's quality maxims also, "do not say what you believe to be false" & "do not say that for which you lack adequate evidence", can be derived from the 'meaning' of the declarative or assertion performative. As this is something like "I warrentee or sign my name to the fact that this sentence (the proposition) is true", & the speaker opens himself to accepting public criticism if it is wrong, it is clear why most speakers (whom we assume would avoid criticism) will behave according to these quality maxims.

Thus it appears that most of Grice's conversational maxims derive from other things, either principles of interpretation or the social rituals expressed in performatives. The others, those of manner, are not only vague, but I suspect, also derive from other things. But that is the subject of an other study. Our purpose here is the destruction of 1 maxim, & the repercussions that follow from this.

I believe that I have shown that at least 1 conversational maxim is a special case of a general rule for interpretation. Some other maxims are derivable from other sources. This interpretive rule throws considerable doubt on the possibility of a completely generative component to connect semantic structure & syntactic form. It is, then, a challenge to proponents of generative semantics or other non-interpretive theories of semantics.

Indeed, the proper statement of most if not all semantic processes appears to lie in the interpretive direction. The reverse direction, creating syntactic strings out of semantic structures, is a highly non-deterministic process, or rather art, often done by trial & error, even by master writers. Its fine execution, high rhetoric, is one of the highest human capacities, & is seldom attained except by 5% of the population. These well-known facts alone

should warn us that formalization of the gener-
ative direction may be very difficult. The re-
verse direction, which all human beings can do
easily, quickly, & with seldom any hesitation or
backtracking (within the limits of the person's
vocabulary), is at least deterministic for sam-
ples of good communication. It is thus much
more liable to formalization.

Thus I hope to have shown that one more as-
pect of semantic processing allows & demands
formal representation only in the interpretive
direction. The game of speaking appears to be
to compose sentences that will be interpreted in
the way desired. For this task, heuristics, but
no fail-safe procedures can be given. A sentence
may be composed, tested for its meaning in the
context, & revised until it bears the desired
additional meaning. The game of understanding
is much simpler; decode lexical items into their
meaning components, & the syntactic structures
as well into meaning relations, & integrate that
resultant structure into the semantic structure
of the preceeding context by overlapping it as
much as possible. Ambiguities met in this pro-
cess should be resolved by this maximal over-
lapping process, which is the principe d'inter-
pretation minimale. There are of course many
constraints about definite marking, topic &
focus marking, scenario-searching, &c.

As a challenge to proponents of semantic
interpretation without a specific semantic rep-
resentation, let me note that any & every state-
ment of this procedure requires the use of a
notion of "prior semantic context". This is, I
believe, nothing more or less than a semantic
representation.

Lastly, I would propose the following
speculation based on observation of how we have
used the notion of topic. In the early part of
this discussion, we used a notion of topic or
subject of a conversation as if we knew what it
was. In my limited experience, however, I have
not found it easy to identify quite what the
topic is, for most paragraphs or discussions,
except in a vague way. Yet it is a notion much
used in prescriptive studies of rhetoric (re-
ducing semantic content to expression). Could
it be that this notion is no more than: that
which ought not be changed without warning ?

That is, I question whether this notion of
topic -- roughly, what one is talking about --
is anything more than a speaker-oriented reflec-
tion of the need for semantic overlap. If so,
then it is not much more than the sentential
topic in a topic-comment syntactic structure,
which is the portion marked to overlap obliga-
torily.[2] This notion of topic of discourse need
have little more existance than the successive
overlaps found between pairs of successive sen-
tences.

Model writing usually does of course have
an identifiable topic at any given point. And
to be sure, there are rhetorical figures based
on a recurrent topic. But such figures are not

obligatory at all. For ordinary writing or con-
versation, I find it difficult to say more than,
"this paragraph is about X, & Y, & Z, ..."
It is thus that I find the notion of topic or
subject of a text suspicious, that it is perhaps
an imaginary concept invented for teaching rhet-
oric. Indeed, we have found no use here for it,
except in the prohibition of rapid changes in
topic, which was really a requirement for some
overlap between sentences.

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