On Recent Formal Analyses of Topic
Louise McNally

0.1 Introduction

The goal of this paper[1] is to take a step towards answering the following question: Do we need a special means of modeling the notion of sentence topic, either in our semantics – where it could be captured via e.g., structured meanings (Krifka 1991) or a richer file change semantics (Portner and Yabushita 1994) – or in a formal model of discourse, where it could be modeled e.g., as a distinguished discourse referent (as implied in Reinhart 1982)? Perhaps surprisingly, this question has not been directly addressed in the literature, and only Roberts 1995 has even raised it. Nonetheless, it is an important question for two reasons: (1) because the phenomena that the notion of sentence topic has been used to explain are cross-linguistically pervasive and must be accounted for by any adequate linguistic theory; and (2) because the analysis of these phenomena will almost certainly have implications for how formally rich semantic and (linguistic) pragmatic theories must be. It is also a timely question: several recent papers offer analyses of sentence topic, and they are striking in the degree to which they diverge, both on the issue of what is being analyzed and in the details of the analysis itself.

I will assess the need to provide a special model of sentence topic by comparing the two principal characterizations of topic in the recent formal literature, viz., that a sentence topic is an entity or entity-type discourse referent (as in e.g., Reinhart 1982, Portner and Yabushita 1994);[2] and that it is a question, modeled as a presupposed salient set of alternatives (as in e.g., Fintel 1994, Büring 1994; see also Roberts 1995). I conclude that, although the matter can certainly not be settled in a work of this size, there is little firm evidence at this point for modeling

[2] Vallduví's 1992 informal notion of "address" has been interpreted as an entity or discourse referent, e.g., by Portner and Yabushita 1994; however, a closer reading of Chapter 4 of this work suggests that an address need not be interpreted in this way. Rather, Vallduví suggests conceiving of an address as simply a parameter of classification in a kind of mental database program, one which could in principle correspond to almost any kind of information. Nonetheless, throughout the paper I will draw parallels between his notion of address and topic as entity where it seems appropriate.

sentence topic in either fashion – indeed, little evidence that we must say anything special about sentence topic at all. Rather, what seems necessary is a good formal characterization of *discourse* topic. Moreover, I suggest that if we adopt a general theory of questions and answers in discourse such as that recently developed in Roberts 1995, we can easily account for the intuitions that gave rise both to the claim that sentence topics are questions and, with one additional assumption, to the claim that topics are entities the sentence is about. Finally, I draw what is perhaps an obvious conclusion, but one worth repeating, viz., that there is a pressing need to spell out in detail the conventional contribution (in particular the presuppositions and other felicity conditions) contributed by what I will refer to as "topic marked expressions", within the context of a theory that acknowledges the importance of non-truth-conditional aspects of interpretation.[3]

0.2   Topic and Topic-Marked Expressions

Before discussing the two general treatments of topic mentioned above, it is essential to distinguish between what I will refer to as "topics" and "topic-marked expressions." Topic is a nonlinguistic notion; topic-marked expressions are linguistic objects – *wa*-marked NPs in Japanese, for example, are prima facie candidates for topic-marked expressions.

The difference can be seen in the following example. On some analyses (e.g., Reinhart 1982, Vallduví 1992) it is possible for a sentence to have a topic (for Vallduví, an address) without containing any topic-marked expression (what Vallduví calls a "link"). The Catalan minimal pair in (1) illustrates: (1a) contains a link (the left dislocated NP); (1b) does not, although the null subject of the sentence is assumed to identify an address (topic) with which the information in the sentence is associated.

(1)   a. La   Nuria,   odia   el   bròquil.
          the   Nuria,   hate.3sg.pres   the   broccoli
          "Nuria, she hates broccoli."

      b. Odia   el   bròquil.
          hate.3sg.pres   the   broccoli
          "She hates broccoli."

I take it as uncontroversial that the interpretation rules for natural language must account for the import of ostensible topic-marking expres-

---

[3]This latter conclusion is in the spirit of Vallduví's 1992 criticism that Reinhart's 1982 theory of topic failed to provide "operationalizable" criteria for identifying the topic of a sentence and his urging that our attentions should be devoted to analyzing linguistically marked expressions – what he calls "links."

sions such as Japanese *wa*, left dislocation in Catalan (Vallduví 1992), or the "B" intonational contour in English (Jackendoff 1972). However, whether or how those rules must make specific reference to a semantic or pragmatic notion of sentence topic is a separate matter.

The distinction between topic and topic-marked expression has been underemphasized in the literature, but it is a crucial one because some analyses are concerned with the former notion (such as Reinhart's), others with the latter (such as Büring's), and at least one (Vallduví's) is concerned with both. Obviously these analyses cannot be compared until their goals are properly understood.

0.3   Two Characterizations of Topic

0.3.1   Topic As Entity

The analyses that treat topics as entities or discourse referents are, as far as I can determine, inspired in two ways. On the one hand, one not infrequently comes across the empirical claim that there are topic-marked constituents in language X and that they are always entity denoting; if the denotations of topic-marked constituents are identified with topics, then topics must be entities. Kiss (1993:4), for example, argues that only entity-denoting and not quantificational NPs can appear in the designated "topic position" in Hungarian and implicitly concludes that topics must be entity denoting.

On the other hand, the proposal that topics are entities seems inspired by the intuition that the topic of a sentence identifies what the sentence is "about," with one of the following two characterizations of aboutness in mind:

- Aboutness derivative from property ascription: The topic of S is identified with the argument that is paired with a one-place property in a structured proposition expressed by S (Kiss 1993).[4]
- Aboutness derivative from a procedure for updating the common ground: The topic of S is a "file card" onto which the information contained in S is entered or a referent with which the information in S is associated (Reinhart 1982, some construals of Vallduví 1992, Portner and Yabushita 1994).

---

[4]Krifka's 1991 structured meanings account is similar, though he does not explicitly discuss aboutness, nor is he (as far as I can determine) committed to the view that topics are entities.

This view of what a topic is can also be extrapolated from some recent formal semantic implementations of Brentano and Marty's thetic/categorical theory of judgment (e.g., Fintel 1989, Ladusaw 1994, though this is not to imply that these authors would agree with such an extension of their proposals).

Although not identical, these senses of aboutness are very similar, and for the purposes of this discussion it will not be necessary to distinguish them.

Both of these motivations for the claim that topics are entities deserve further scrutiny.

0.3.1.1 What Does Topic-Marking Tell Us? B Contour as an Example

First, consider the claim that certain ostensibly topic-marked expressions in natural languages (e.g., those in a certain preverbal slot in Hungarian) must denote entities. The conclusion that topics are entities crucially *presupposes* that the denotations of the expressions in question should be identified with topics. However, in order to justify this conclusion, the semantic and pragmatic import of the linguistic environment in which the crucial entity-denoting expression appears must be independently investigated. I do not know to what extent such investigation has been carried out for individual cases, but I will briefly discuss one case which illustrates what is at stake: the use of the fall-rise intonational contour in English that Jackendoff 1972 calls "B" contour.[5] B contour is associated with the subject constituents in examples like (2); simple focal contour (Jackendoff's "A" contour, roughly, a high pitch accent on the most prominent syllable or foot in the phrase, followed by low phrase accent and boundary tone) is associated with the object constituents:

(2)   Who wants what for dinner?
       [Laura]$_B$ wants [macaroni and cheese]$_A$, [Kent]$_B$ wants [pizza]$_A$, and [Johnny]$_B$ wants [nothing]$_A$.

Vallduví and Zacharski 1994 take this contour to be a link marking; the constituent bearing this contour identifies the address under which the information in the sentence will be entered – in this case, Laura's desire for macaroni and cheese will be entered into the hearer's knowledge store under an entry for Laura. Interestingly, they do not consider the presence of this contour *sufficient* for indicating an address.[6] Now, it is quite possible that a single intonational contour could be ambiguous, just in the way that lexical items can be. But I think there is good evidence that B contour has one interpretation that is manifest not only

---

[5]Pierrehumbert and Hirschberg (1990:296-7) note that "recent unpublished experiments by Liberman and Pierrehumbert strongly suggest that [this contour] is L+H* L H%."

[6]This contour is also not *necessary* for indicating the topic, since in Vallduví's 1992 theory addresses need not be linguistically marked but can be recovered from the context, as in (1b).

in cases where one would want to say that it identifies a topic qua entity, but also in cases where it is much less plausible to make such a claim.

Roberts 1995 proposes that B contour conventionally presupposes a particular strategy for answering a complex question.[7] For example, consider the question in (2), above. A reasonable strategy for answering this question involves answering it via a series of subquestions arrived at by fixing sequentially the value for one of the *wh*-words. Suppose the relevant subdomain of discourse consists of Laura, Kent, and Johnny. We will effectively answer the question in (2) by answering sequentially: *What does Laura want? What does Kent want? What does Johnny want?*. B contour signals that the speaker is pursuing this strategy, rather than some other one, e.g., one on which s/he fixes the values of various food items and answers questions such as *Who wants macaroni and cheese?* (see also Kanerva and Gabriele 1995 for a similar proposal). Such a strategy entails an informational asymmetry in the status of the two *wh*-expressions and their counterparts in subsequent assertions, insofar as values for one are fixed prior to values for the other. In a sense, the values for the second depend on the values for the first, but not vice versa; thus, we can think of the *wh*-word corresponding to the B contoured expression as, in effect, an "independent variable" (cf. Jackendoff's 1972 use of the term *independent focus*); and that corresponding to the A contoured expression, a "dependent variable."

Now, this is consistent with Vallduví and Zacharski's claim that the B contoured expressions in (2) are links, i.e., expressions that signal the hearer to change to a new address (topic),[8] and more specifically, with the view that such addresses/topics correspond to entities. But the general "divide and conquer" strategy that Roberts takes B contour to presuppose can be pursued in all sorts of ways.[9] For example, it cannot be true that B contour marks the address of an entity-type

---

[7]'Complex question' should be interpreted not as referring necessarily to a multiple *wh*-question, but rather to any sufficiently rich set of alternatives that are either explicitly proferred (to use Roberts' term) by a speaker in a conversational exchange or presupposed by some contribution made to the dialogue. Such alternatives can be characterized as a question insofar as the set comprising them can be viewed as the denotation of a question on an analysis such as in Hamblin 1973. Thanks to Jonathan Ginzburg for reminding me to clarify this point.

[8]This is true despite the fact that Jackendoff, Roberts, and others refer to the B contoured expression as a "focus." Focus, in this sense, does not refer to "new information" as it does in Vallduví's theory, but rather to (a) a prosodic phenomenon and (b) possibly also a particular kind of interpretation for this phenomenon. Whatever notion the term 'focus' should be used to describe, the important point is that the phenomena that Jackendoff, Roberts, et al., and that Vallduví respectively describe are real and that some relationship can be established between them.

[9]Thanks to Robin Schafer for bringing this sort of example to my attention.

discourse referent in exchanges such as the following, where the contour marks determiners or an NP like *nobody* (see Kadmon and Roberts 1986, Büring 1994 for similar examples):

(3)   How many people expressed interest in your house?
      Well, [lots]$_B$ of people [called]$_A$, and [three]$_B$ [looked at it]$_A$, but [nobody]$_B$ [made an offer]$_A$.

Rather, it would seem more fruitful to ask whether an analysis such as Roberts' as it stands can capture Vallduví's intuition that topic marking facilitates the efficient incrementation of information (whether it's in the common ground or the hearer's knowledge store). I will offer a suggestion for how this might be done at the end of section 3.

This discussion of B contour has highlighted the way in which an effort to arrive at a general interpretation for a linguistic marking that has been widely associated with sentence topichood can lead to a rather different understanding of what that marking is all about. Specifically, we found no special restriction to entity-denoting expressions – the sort of motivation I mentioned earlier for the claim that topics are entities. Other putative cases of topic marking in other languages may in fact be restricted in this way. But the example of B contour should make clear why it is important to investigate other cases of putative topic marking at a similar level of detail.

0.3.1.2   Entities As What Sentences Are "About"

Consider now the second ostensible source of inspiration for treating topics as entities mentioned at the beginning of section 3.1: the characterization of topic in terms of aboutness and the apparently accompanying intuition that what sentences are about is entities. The role of this latter intuition is crucial: The conclusion that topics are entities does not follow directly from either of the above general characterizations of the aboutness associated with topic. In the case of aboutness as derivative from property ascription, there must be an additional assumption that all properties are first order. While one can certainly make this assumption (and indeed, it is clearly made in some of the literature), it is not a necessary one. Similarly, in the case of aboutness as derivative from association of information with a particular discourse referent or "file card," the conclusion that topics are entities requires the further assumption that all discourse referents or file cards correspond to entities, a perhaps not uncommon assumption, but again, one that is not formally necessary (though perhaps it is psychologically justifiable). Such assumptions are relatively easy to incorporate. But is there any empirical motivation for them?

The sort of motivation that one finds in the literature builds on

claims that one (entity type) argument in a sentence is somehow distinguished from the rest semantically or pragmatically. For example, Portner and Yabushita 1994 argue that there are two ways in which a *wa*-marked argument in Japanese, or a discourse referent corresponding to such an argument, are special. First, they discuss two cases where the choice of *wa*-marked expression ostensibly influences truth conditions. However, both cases involve crucial interactions with contextually-related factors: specifically, the nature of the question(s) to which a sentence containing a *wa*-marked expression constitutes an answer, and the presence of *dake*, the Japanese equivalent of the focus-sensitive operator *only*.[10] Consequently, such effects look similar to the interaction of prosodic prominence with truth conditions – the sorts of effects that e.g., Vallduví 1992 accounts for without special appeal to a notion of a distinguished argument or discourse referent. Second, Portner and Yabushita present data such as in (4) – crucially, the contrast between the acceptability of (4c), and the oddness of (4d) –, which they claim show that "a discourse entity can be most readily picked out with information that has been attributed to it while it is the topic" (1994:5, data from their (39), slightly abbreviated).

(4)   a.   Nihonjin no gakusei$_2$ ga   Boston no daigaku   de
           Japanese of student$_2$ NOM Boston of university LOC
           gengogaku o   benkyoo shite-imasu.
           linguistics ACC study   doing-is.
           Sono gakusei$_2$ wa   imiron   o   senkoo shite-imasu.
           the   student$_2$ TOP semantics ACC major   doing-is
           Fairu Henkoo Imiron   de   yuumeina X kyooju   wa
           File   Change Semantics for famous   X professor TOP
           ima sono gakusei$_2$ o   oshiete-imasu.
           now the   student$_2$ ACC teaching-is
           "A Japanese student is studying linguistics at a university in Boston. The student is majoring in semantics. Professor X, who is famous for File Change Semantics, is teaching the student...."

       b.   (Another student is then introduced into the discourse, which continues as follows – LMcN.)

---

[10]Since space considerations preclude a full discussion of these examples, the reader is referred to their work for details.

   c. Sono gakusei$_3$ wa   imiron   o   senkoo   shite-iru
      the   student$_3$ TOP semantics ACC majoring doing-is
      gakusei$_2$ to   amari naka   ga   yoku arimasen.
      student$_2$ with   much   relations NOM good aren't
      "The student is not on such good terms with the student
      who is majoring in semantics."

   d. ??Sono gakusei$_3$ wa   X kyooju   ga   osheite-iru
      the   student$_3$ TOP X Professor NOM teaching-is
      gakusei$_2$ to   amari naka   ga   yoku arimasen.
      student$_2$ with   much   relations NOM good aren't
      "The student is not on such good terms with the student
      whom Professor X is teaching."

These data are of more interest, as they are not naturally explained
on the view of sentence topic that I will advocate in the next section.
However, one might argue that they reflect a fact about the *form* of the
conversation as it proceeds rather than the structure of the discourse
model itself. For example, the data are reminiscent of the problem of
choosing the morphological gender for a pronoun, in cases where there
is a choice, e.g., the use of masculine vs. neuter to refer to a car in
German (the option being available due to the existence of the synonyms
Auto (n.) and *Wagen* (m.)): the choice depends on the gender of the
expression originally used to refer to the entity in question.

Kuroda's (1972, 1992) analysis of Japanese *wa* suggests another way
in which an argument might be singled out. Adapting Brentano and
Marty's (see e.g., Marty 1918) thetic/categorical theory of judgment,
Kuroda proposes that the presence of *wa* in a clause indicates that the
clause expresses a categorical judgment – a cognitive act that involves
first apprehending an individual, and then asserting or denying that
some property holds of that individual. The *wa*-marked constituent
denotes the apprehended individual that serves as the subject of this
judgment (see Ladusaw 1994 for a suggested semantic characterization
of this psychologically grounded theory of judgment in terms of what
are implicitly, if not explicitly, structured propositions). If Kuroda's
analysis is correct, it would justify the identification of sentence topic
with the "subject" of a categorical judgment, modeled (for example) as
a distinguished argument in a structured proposition. His analysis and
others like it therefore bear careful consideration.

However, there is some reason to be skeptical that an account of
wa must be cast in terms of this theory of judgment, in either a psy-
chological or semantic incarnation. There is some indication that *wa*
behaves rather like B contour in English: Kuroda 1992 claims that con-

trastiveness is deeply associated with *wa*; moreover, in this contrastive use *wa* can attach to constituents of a wide variety of syntactic categories (Kuroda, personal communication). While these observations are only very suggestive and do not pretend to do justice to the voluminous literature on *wa*, I hope they inspire an effort to explore whether *wa*'s semantics might be more similar to that of B contour than Kuroda's analysis would indicate.[11]

To summarize, I have tried to cast doubt on the view that sentence topics should be modeled as entities in our semantic or pragmatic theory, if indeed they should be modeled at all. Perhaps more importantly, I have also tried to clarify where one should look for empirical arguments to decide the matter. I now turn to consider the second principal characterization of sentence topic in the recent formal literature.

0.3.2 Topic As Question

von Fintel (1994:49ff.) models sentence topics as questions, where the denotation of a question is, following Hamblin 1973, taken to be the set of propositions that are its potential (not necessarily true) answers.[12] The topic of a sentence is constrained to be anaphoric to a discourse topic (which, in virtue of the anaphoricity relation, must itself also be a question); if a discourse topic is to serve as the antecedent for a sentence topic associated with an expression α, then that discourse topic must be a subquestion of the question *What about α?*, i.e., a subset of the set of propositions defined as in (5):[13]

(5) $\{p | \exists P [[\![\alpha]\!](P) = p]\}$

---

[11]More generally, it is not clear that there is really strong motivation for building the thetic/categorical distinction into either semantics or pragmatics. In light of a recent reconsideration (McNally 1995) of perhaps the most significant body of data taken to support the relevance of this distinction for linguistic theory, namely the correlation between the individual/stage level classification of predicates and the weak vs. strong interpretation of NPs (Milsark 1979, Carlson 1980, Ladusaw 1994), I am inclined to conclude that a more promising account of these facts will emerge from the development of a more sophisticated theory of NP interpretation, coupled with a better understanding of the pragmatic conditions governing reference and the use of nonreferential NPs. See McNally 1995 for further discussion.

[12]Büring 1994 also could be viewed as modeling sentence topics as questions. To be precise, he provides an interpretation rule for topic-marked – specifically, B contoured – expressions in English; the set of alternatives he takes to be presupposed by B contour – in effect, his model of what a topic is – can be viewed as a question. Since Büring's proposal is extremely similar to that in Roberts 1995, which was described briefly in section 3.1.1, I will not discuss it separately in this paper.

[13]Although for uniformity von Fintel treats α as a quantifier in his characterization of topic, he clearly intends it to be possible for α to be entity-denoting as well, in which case (as in (7), below) P would apply to α, and not the other way around.

For example, the topic of the following discourse corresponds to the denotation of the question (see (7a)); this question will also serve as the topic of the subsequent sentence in virtue of the fact that it is a subset of the set of propositions presupposed by abstractly "topic marking" the pronoun *she*, taken here to be coreferent with *Nancy* (see (7b), where the last equation holds assuming x_i is set equal to $\mathbf{n}$ in the context). I put 'topic marking' in scare quotes because the pronoun is not overtly marked as the topic in any way – e.g., it is not prosodically or syntactically marked; in pro-drop languages it would not even be expressed.

(6) What did Nancy$_i$ do with the flowers?
     [She$_i$]$_{TOP}$ put them in a vase.

(7) a. $\{p|\exists R[R(\mathbf{n},\mathbf{f}) = p]\}$
     b. $\{p|\exists P[(\lambda Q.Q(x_i))(P) = p]\}$
        $= \{p|\exists P[P(x_i) = p]\} = \{p|\exists P[P(\mathbf{n}) = p]\}$

von Fintel's motivation for his analysis of topic appears to be rather different from the sort of motivation mentioned we have seen up to this point. In particular, he is not concerned with the problem of interpreting any specific linguistic structure (be it syntactic or phonological) which might be associated with topichood (as are Portner and Yabushita 1994, Vallduví 1992, and Büring 1994); rather, his approach seems directed more towards capturing the informational cohesion of discourse:[14] the topic of S simply functions as a kind of "check" that S is uttered only in contexts where a set of propositions (i.e., a question) whose composition involved the denotation of a particular constituent in S has been made salient. This is an extremely weak characterization of what a sentence topic is. At the same time, the notion of discourse topic (as a question) becomes extremely important, since the discourse topic ultimately constrains – indeed, is identified with – the sentence topic.

von Fintel's notion of sentence topic is so weak that it is worth asking whether we can do without it. In particular, I want to suggest that we can subsume his treatment of sentence topic as a question under a more general theory of information structure such as that Roberts 1995 uses (inter alia) to interpret B contour, and indeed, perhaps do without any formalized notion of sentence topic altogether. Roberts' theory builds on the assumption that all felicitous contributions to cooperative discourse are designed to facilitate an increase in the shared informa-

---

[14]I am speaking about the character of his proposal, not his stated concerns; von Fintel's (1994) stated concern involves clarifying the pragmatic determinants of quantifier restrictions.

tion of the conversation participants.[15] Increasing information involves choosing from among various sets of alternative ways the world could be those that are factual; consequently, this process can be modeled by a series of questions, designed to present a certain set of possibilities for consideration, and answers which should select among them. The basic rules governing the conversational interchange are the Gricean maxims, most importantly Quantity and Relevance.

In simple cases, Roberts' question under discussion is equivalent to von Fintel's notion of a discourse topic. Gricean cooperative principles will ensure that in the wake of such a question (such as in (6)) a complete and relevant answer must be offered. It is difficult to see how such an answer could *not* satisfy the presupposition associated with von Fintel's notion of sentence topic.[16] Conversely, the maxim of Relevance will require that any assertion constitute a coherent answer to some implicit or explicit question under discussion. As far as I can determine, von Fintel's analysis of sentence topic imposes no further requirements than these. The larger point is that the cohesiveness enforced by sentence topic on von Fintel's analysis is a fact about the question/answer interchange in general, and not a fact about individual sentences per se – especially those that are not linguistically marked in any way. Note that the notion of sentence topic ceases to play any role at all, at least in cases where there is no overt topic marking in the sentence. In contrast, as mentioned above, the role of questions under discussion – what we can think of as *discourse* topics – becomes central. Of course, in cases where topic marking *is* present, interpretation rules for that marking will have to be provided; whether these rules will require specific reference to a notion of sentence topic remains an empirical question, and it is only by spelling out these rules that we will ever determine whether something more interesting about sentence topic needs to be said.

Moreover, if Roberts' analysis of B contour in English is viable as a general analysis of topic marking, it becomes clear why the intuitions that sentence topics are questions and that they are entities are equally strong – and why one finds in the literature both the claim that sentences are about questions and the claim that they are about individuals. On

---

[15]Roberts' approach to language as a game has its modern antecedents in the work of Wittgenstein and, more recently, Carlson 1983. See Ginzburg 1994a, 1994b for a related theory of dialogue that takes a more complex view of the interactions of individual conversation participants in order to address a different set of empirical issues. Note also that it should be possible in principle to recast the ideas sketched here in other theories of discourse which make use of a notion similar to Roberts' technical definition of "question under discussion".

[16]The only possible exception I can think of is the answer "I don't know."

the one hand, we can say that a sentence S is about a topic qua question insofar as S constitutes a felicitous answer (whether right or wrong, complete or incomplete) to that question (cp. Ginzburg's (1994a) definition of the ABOUT relation). On the other, in cases where the question at issue in the discourse is complex, the values for the "independent variable" – i.e., those fixing the interpretation for one *wh*-word in order to answer the complex question via a series of simple questions, as discussed in section 3.1.1 – can also be quite naturally thought of as what S is about. In virtue of the fact that these values will be fixed in succession, each will effectively constitute what is often referred to in the literature as a "contrastive" topic (cp. Vallduví's (1992:88ff) comments on contrastive links). If the values for these independent variables correspond to entities (and indeed we might reasonably surmise that they generally do for language-independent reasons), we will have derivatively captured the feeling that (at least a significant number of) sentences are about entities without explicitly building a notion of topic as entity into our semantics or pragmatics at all.[17]

0.4 Conclusion

In this paper I have offered some reasons to think that the notion of sentence topic becomes superfluous once a sufficiently complete interpretation for so-called topic marking is available, within the context of a suitably developed theory of conversational exchange. Whether or not this view is ultimately sustainable, I hope to have impressed upon the reader both the need for detailed analyses of topic marking devices and the importance of distinguishing the linguistic phenomenon of topic marking from the nonlinguistic notion of topic – both points Vallduví has made, if they have gone somewhat underappreciated.

Understanding the data that the notion "topic" has been used to account for in terms of a strategy for answering questions under discussion promises to allow us to capture the aboutness of a sentence at least as successfully as it could be captured under the analysis of topic as entity. It also illuminates as successfully as does von Fintel's analysis the intuition that topics serve as devices for maintaining discourse cohesion (see Reinhart 1982 for interesting comments on this point).[18]

---

[17]We might also think of the values of these independent variables as corresponding to Vallduví's 1992 addresses in the more general sense he advocates in Chapter 4. They can be said to facilitate the incrementation of information insofar as they allow the speaker to make clear that he or she is answering a complex question in virtue of answering a series of simpler questions determined by the sequential choice of values for an independent variable associated with that complex question.

[18]Incidentally, it is worth noting that nothing I can find in the motivation for or

It remains to be shown whether the relatively simple assumptions about the information structure of discourse appealed to in section 3 are sufficient to account for all of the uses of putative topic-marked expressions in conversation. Even if we assume that conversation is generally governed by the goal of incrementing information (by answering implicit or explicit questions), substantial stretches of conversation consist of elaborations, negotiations over contributions to the common ground, and so on. Whether candidate examples of topic-marked expressions occur in such stretches of conversation, in accord with felicity conditions that are statable solely in terms of this theory of information structure, is the question. However, if they do occur in contexts in which such felicity conditions are not satisfied, I suspect that such problematic cases will be illuminated more by a theory of the local cohesiveness of discourse than by a theory of the predicational structure of propositions or some other theory in which some notion of sentence topic plays a central role.

---

analysis of topic as entity speaks to this intuition, or even to the issue of how a sentence topic might be related to a discourse topic.

Bibliography

Büring, Daniel. 1994. Topic. Ms., Universitat Köln.

Carlson, Greg. 1980. *Reference to Kinds in English.* New York: Garland Press.

Carlson, Lauri. 1983. *Dialogue Games.* Dordrecht: Reidel.

Fintel, Kai von. 1989. Theticity in Generative Grammar. Ms., U. Mass. Amherst.

Fintel, Kai von. 1994. *Restrictions on Quantifier Domains.* Doctoral dissertation, U. Mass. Amherst.

Ginzburg, Jonathan. 1994a. An Update Semantics for Dialogue. Ms., HCRC, University of Edinburgh.

Ginzburg, Jonathan. 1994b. Dynamics and the Semantics of Dialogue. In *Proceedings of IOCLLI 1.*

Hamblin, C. 1973. Questions in Montague English. *Foundations of Language* 10:41–53.

Jackendoff, Ray. 1972. *Semantic Interpretation in Generative Grammar.* Cambridge, MA: MIT Press.

Kadmon, Nirit, and Craige Roberts. 1986. Prosody and scope: the role of discourse structure. In *CLS 22, Part 2: Papers from the Parasession on Pragmatics and Grammatical Theory*, ed. A. Farley, P. Farley, and K.-E. McCullough, 16–28. Chicago Linguistics Society.

Kanerva, Jonni, and Leslie Gabriele. 1995. Intonation and Focus Layers. In *Proceedings of NELS 25.*

Kiss, Katalin É. 1993. Genericity, Predication, and Focus. Ms., Hungarian Academy of Sciences.

Krifka, Manfred. 1991. A Compositional Semantics for Multiple Focus Constructions. Ms., U. Texas, Austin.

Kuroda, Shige-Yuki. 1972. The Categorical and the Thetic Judgment: Evidence from Japanese. *Foundations of Language* 9:153–185.

Kuroda, Shige-Yuki. 1992. Judgment Forms and Sentence Forms. In *Japanese Syntax and Semantics: Collected Papers.* Dordrecht: Kluwer.

Ladusaw, William A. 1994. Thetic and Categorical, Stage and Individual, Weak and Strong. In *Proceedings of SALT IV*, ed. Mandy Harvey and Lynn Santelmann, 220–29. Cornell University DMLL.

Marty, Anton. 1918. *Gesammelte Schriften*. Tübingen: Max Niemeyer.

McNally, Louise. 1995. Stativity and Theticity. Presented at the Bar-Ilan Conference on Events and Grammar. Ms., Universitat Pompeu Fabra.

Milsark, Gary. 1979. *Existential Sentences in English*. New York: Garland.

Pierrehumbert, Janet, and Julia Hirschberg. 1990. The Meaning of Intonational Contours in the Interpretation of Discourse. In *Intentions in Communication*, ed. P. Cohen, Jerry Morgan, and Martha Pollack. 271–311. Cambridge, MA: MIT Press.

Portner, Paul, and K. Yabushita. 1994. The Semantics and Pragmatics of Topic Phrases. Ms., Georgetown U. and U. Texas, Austin.

Reinhart, Tanya. 1982. Pragmatics and Linguistics: An Analysis of Sentence Topic. *Philosophica* 27:53–94.

Roberts, Craige. 1995. Information Structure in Discourse: Towards an Integrated Formal Theory of Pragmatics. Presented at the Colloque de Syntaxe et Sémantique de Paris. Ms., OSU.

Vallduví, Enric. 1992. *The Informational Component*. New York: Garland.

Vallduví, Enric, and Ron Zacharski. 1994. Accenting Phenomena, Association with Focus, and the Recursiveness of Focus-Ground. Technical Report RP-49. HCRC, University of Edinburgh.