Japanese -wa, -ga, and Information Structure

1. Introduction

The first non-introductory chapter of Kuno 1973 opens with the statement "The distinction in meaning between wa and ga is a problem that perpetually troubles both students and instructors of Japanese."* To the list of those perpetually troubled by the distribution and interpretation of these two morphemes can be added theoretical linguists, who continue to grapple with the problem of accounting for them in the most convincing and elegant way. This issue has become of interest far beyond those who seek to understand the particular facts of Japanese, because it has become a truism that Japanese has an overt marker for topic (wa), a concept that is much appealed to in accounts of not only the pragmatics, but also the syntax and semantics, of a wide range of languages, in many of which however the evidence for the category "topic" is quite indirect. The hope then is that the properties of Japanese wa might constitute a leading light for the understanding of this concept.

2. Core data

2.1. Thematic and contrastive wa

In Kuno 1973, which draws in this area heavily on the work of Kuroda 1965, two uses of wa and two of ga are distinguished as follows (p. 38):¹

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¹ The example of contrastive *wa* is not that given by Kuno; I have substituted another (from Fiengo & McClure 2002) for reasons that will be discussed in Section 3.4 below.

Kuno in fact distinguishes three, not two, uses of ga. The third is the use of ga to mark what appear to be the internal arguments of stative transitive verbs. This use is essentially orthogonal to any issues discussed here, and so it will be set aside.

1. a. *wa* for the theme of a sentence: "Speaking of ..., talking about ..."

Example:

John wa gakusei desu.

John-WA student is

Speaking of John, he is a student.

b. *wa* for contrasts: "X ..., but ..., as for X..."

Example:

John ga pai wa tabeta ga (keeki wa tabenakatta).

John GA pie WA ate but cake WA ate-NEG

John ate (the) pie, but he didn't eat (the) cake.

c. ga for neutral descriptions of actions or temporary states

Example:

Ame ga hutte imasu.

rain-GA falling is

It is raining

d. ga for exhaustive listing "X (and only X) ..." "It is X that ..."

Example:

John ga gakusei desu.

John-GA student is

(Of all the people under discussion) John (and only John) is a student. It is John who is a student.

"Thematic" *wa* is so named because Kuno takes it to indicate the THEME of the sentence, in the sense of the Prague School. In this use, *wa* does not encode any sense of contrast; with this in mind I will use another common, less theory-specific term for this interpretation of *wa*, and refer to it from now on as NONCONTRASTIVE *wa*. The sentence in (1a) can be used to convey information about John, apparently without any implicature about the properties of any other individual, for example as an answer to the question *What do you know about John?* Contrastive *wa*, on the other hand, does generate implicatures concerning other entities in the discourse model, as illustrated by this example from Hara 2004:

- a. Dare-ga paatii ni kita ka?
 who GA party to came Q
 Who came to the party?
 - b. JOHN wa kita.

John WA came As for John, he came. (Implicature: It is possible that it is not the case that John and Mary came. $\approx I$ don't know about other people.)

c. John ga kita.

John GA came

John came. (Complete answer)

The capitalization of *JOHN* in (2b) indicates stress; according to Kuno the contrastive reading of wa is always associated by "prominent intonation," while this is absent from noncontrastive wa-phrases. There seems to be comparatively little literature on the contours associated with the different interpretations of wa (or ga), but see Nakanishi 2000 for some experimental and corpus evidence supporting Kuno's intuition.

As Kuno notes, in some cases there is ambiguity between these two uses, which may however be resolved either by stress, or by context, or both. Thus (2b), in another context and without the stress on John, can be interpreted as a case of noncontrastive wa. However, contrastive wa is freer than noncontrastive wa in its distribution, as we will see, so that there is only partial overlap in the environments in which they occur.

2.1.1. Clause types

Most generally, noncontrastive *wa* is a "root phenomenon." That is, it does not appear in subordinate clauses, except in complements to certain verbs, such as *say* and *know*. Thus *Mori san* does not necessarily get a contrastive interpretation in (3a), where the embedding verb is *siru* (know), while it does in the minimally different (3b), where the embedding verb is *zannen-ni omou* (regret) (Kuroda 2005, pp. 19–20):

- a. John wa Mori san wa Toyota no syain de aru koto o sitte-iru John WA Mori san WA Toyota GEN employee be fact ACC knows John knows that Mori is an employee of Toyota.
 - John wa Mori san wa Toyota no hira-syain de aru koto o
 John WA Mori san WA Toyota GEN flat-employee be fact ACC
 zannen-ni omotte iru

regrets

John regrets that Mori is a mere employee of Toyota.

Kuroda's generalization is that noncontrastive *wa* can only occur in "statement-making contexts;"² Hoji 1985 refers to the complements of "bridge verbs" There does not yet appear to be the kind of detailed listing of exactly what constitutes the kind of statement-making contexts/type of verb that allow noncontrastive *wa* that exists for embedded Verb Second in the Germanic languages (see for example Vikner 1995 and references therein). This issue,

² Note that this phrasing should not be taken to exclude the possibility of wa occurring in questions, which it freely does (as long as it is not attached to the wh-phrase itself):

broached in Whitman 1991, could clearly be pursued further as a contribution to a theoretical understanding of embedded root phenomena (see Heycock 2006 for an overview of some of the issues).

Contrastive *wa*, on the other hand, can occur in a wider range of subordinate clauses, although apparently not all (for discussion of contexts where contrastive *wa* is excluded, see Hara 2004, to appear).

2.1.2. Iteration

According to Kuno 1973: 48, noncontrastive *wa* does not iterate within a sentence, which can therefore contain at most one instance. Contrastive *wa*, on the other hand, can iterate. Further, while noncontrastive *wa* has to be sentence-initial, contrastive *wa* can be clause-internal. Thus in the following example only the first *wa*-phrase is non-contrastive:

4. Watasi wa tabako wa suimasu ga sake wa nomimasen.
I WA cigarette WA smoke but alcohol WA drink-NEG *I smoke, but I don't drink.*

However, there is some dispute as to whether noncontrastive *wa* really has to be unique. Tomioka to appear (a) describes multiple noncontrastive *wa*-phrases as "not totally prohibited but rather rare." Kuroda 1988 goes further, taking iterability to be a fundamental property of all *wa*-phrases. He gives the following example as involving two noncontrastive *wa* phrases:

5. Paris de wa Masao wa Eiffel too to Notre Dame-no too ni nobotta Paris in WA Masao WA Eiffel tower and Notre Dame GEN tower in climbed In Paris, Masao climbed up the Eiffel tower and the tower of Notre Dame.

i. Mitiko wa nani o site imasu ka? Mitiko WA what ACC doing is Q What is Mitiko doing?

It is no coincidence that the *wa*-phrases here are a locative adjunct and a subject.³ Again as has been observed for the initial position in a V2 sentence in Germanic, it is common to get a noncontrastive reading for a subject or a scene-setting adverbial, but *wa*-marking of other arguments strongly favours the contrastive reading, a fact that is well known but again not yet satisfactorily explained.

2.1.3. Movement

Saito 1985 argued that sentences with intial nominal *wa* phrases are ambiguous in their derivation and structure: the *wa* phrase may have moved to the sentence initial position, leaving a trace, or it may be generated in the initial position, binding an empty pronominal. Hoji 1985, building on this, argues that the difference correlates with interpretation: *wa* phrases that show the hallmarks of movement (such as island sensitivity and reconstruction effects) receive only a contrastive interpretation, while sentence-initial *wa* phrases that cannot have reached the initial position by movement are unambiguously noncontrastive.

2.2. Exhaustive and descriptive ga

2.2.1. Correlation with predicate types

As we saw earlier, Kuroda 1965 pointed out that *ga* sometimes, but not always, gives a reading of "exhaustive listing," and that there is a correlation between these readings and the nature of the predicate: in a main clause, a *ga*-marked subject of a stage-level predicate gets either an exhaustive listing reading or a neutral reading, while a *ga*-marked subject of an individual-level predicate can only get the exhaustive listing reading.

6. a. John ga kita.

³ It is sometimes assumed or implied (e.g. Portner and Yabushita 1998) that *wa* always has a contrastive reading on any constituent other than a noun phrase, but the literature that deals explicitly with "scene-setting" adjuncts seems unanimous that PPs in this function may have a noncontrastive reading.

John GA came

John came. or JOHN came / It is John who came.

b. John ga gakusei desu
John GA student is
JOHN is a student / It is JOHN who is a student.

This restriction is almost certainly stated too categorically; some qualifications will be discussed in Section 3.2.3.

2.2.2. Clause type

The pattern just noted is again, like the possibility of a noncontrastive interpretation of *wa*, a root phenomenon. To be more precise, it is only in clauses which are unambiguously nonsubordinate that the exhaustive listing reading is forced on the subject of individual-level predicates; both in a clearly subordinate clause (such as the antecedent of a conditional, for example), and in the type of clause that optionally allows embedded root phenomena, this reading is not forced, but merely available.

3. Questions of analysis

Given the kind of data discussed in the previous section, a number of questions immediately arise. First, the characterizations of the interpretations of *ga* and *wa* are both disjunctive. Is this an irreducible fact, or is there some underlying unity to the different uses/interpretations in each case? If so, what interactions give rise to the apparent diversity? Second, these characterizations have appealed to the notions of "exhaustive listing" and of "topic"; what definitions are being assumed?

3.1. Ga and focus

It has become common⁴ to assume that the "exhaustive listing" reading of a *ga*-phrase should be considered to amount to NARROW FOCUS on that constituent (that is, focus that does not include any larger containing constituent). Unfortunately "focus" has an enormously wide range of meanings in the literature. Here it is used in a sense that belongs to the pragmatic tradition that goes back to the Prague School, where is means, very approximately, the informative, non-presupposed, part of an utterance. In this sense it is often also referred to as the RHEME. It is crucial to bear in mind that there is no requirement that the referents of focal constituents be textually new, so that there is no contradiction in analysing *me* as the focus in (7B), even though the speaker and the hearer are generally taken to be linguistically salient in any conversation, and in this case the speaker has even been mentioned in the same sentence.

- 7. A: Who did your parents contact?
 - B: My mother phoned ME, of course.

As in this last example, in a typical question-answer pair, the focus of the answer is the part that corresponds to the *wh*-phrase in the question.⁵ In (8) the foci of the answers are indicated by bracketing:

- 8. a. A: Why didn't you answer the phone?
 - B: [F I was reading a great novel by YOSHIMOTO]
 - b. A: What were you doing all afternoon?
 - B: I [_F was reading a great novel by YOSHIMOTO]

⁴ Common, but not universal. In particular, Kuroda 2005 argues that the "exhaustive listing" interpretation of ga phrases is not related to focus (p. 41).

⁵ Note that the correspondence between the *wh*-phrase in a question and the focus in an appropriate answer is a useful heuristic, but is not actually definitional. On the one hand it is very generally assumed that all sentences must include a focus (see McNally 1998b for useful discussion), but not all are produced as the answers to overt questions; on the other there are appropriate answers to questions whose information structure cannot be derived from the form of the overt question is such a simple way. A trivial example is (i).

i. A: What did you buy today?

c. A: What were you reading?

B: I was reading [_F a great novel by YOSHIMOTO]

- d. A: Who is the author of the novel you were reading?
 - B: I was reading a great novel by [F YOSHIMOTO]

The examples in (8) illustrate the well-known fact that in English focus (understood in informational terms) can "project" from the constituent bearing the pitch accent, so that only the context indicates whether the focus of B's sentence is the DP *Yoshimoto* or one of a number of larger constituents. However, projection of focus is not unconstrained: for example, there is no "wide focus" or "focus-projected" reading of an example like (9a), as shown by its infelicity as a response to the question in (9b), in contrast to (9c):⁶

- 9. a. I was reading a [$_{\rm F}$ LONG] novel.
 - b. A: What were you reading?

B: # I was reading a [F LONG] novel.

- c. A: What kind of novel were you reading?
 - B: I was reading a [F LONG] novel.

A possible redescription of the distinction between the exhaustive-listing and neutral description ga then, is that ga is a focus marker (the equivalent of an English "A" accent, indicated by small caps in the examples just given) and that the projection of focus is affected in some way by the nature of the predicate. Such a proposal was made in Diesing 1988, who observed that the distribution of the "neutral description" ga in Japanese appeared to mirror the distribution of focus projection from subjects in English, where it has been argued to be

B: I didn't GO shopping.

⁶ The question of how to account for exactly when focus can "project" is a far more complex subject than can be dealt with here; for two important but very different accounts see Schwarzschild 1999 and Steedman 2000a. For the present purposes the parallel between the

restricted to the subjects of unaccusative verbs and stage-level predicates. Thus (@10a,b) can only be interpreted with narrow focus on the subject, but (@11a,b) can also be interpreted with wide focus, so that the entire sentence constitutes new information; the sentences in (11), but not those in (10), have one focus structure that makes them acceptable answers to questions like "What happened/was happening?" or "Why are the chefs running for the door?"

- 10. a. [_F The EMPEROR] was playing pool.
 - b. [_F BLOWFISH] are poisonous.
- 11. a. $[_{F}[_{F}]$ The EMPEROR] arrived].
 - b. $[_{F}[_{F} BLOWFISH]$ are available].

These examples, Diesing argued, exemplify the same phenomenon as Kuno's examples in (6) above, repeated here as (12):

12. a. [_F John ga] gakusei desu
John GA student is
JOHN is a student / It is JOHN who is a student.

b. $[_{F} [_{F} John ga] kita]$

John GA came

John came. or JOHN came / It is John who came.

Diesing's proposal was that focus cannot project from the external subject position (the position in which the subjects of unergative and transitive verbs and individual-level predicates originate); but the subjects of unaccusative verbs and stage-level predicates originate in a lower position inside the VP. Assuming that the trace of the subject is visible to

interpretations of the English and Japanese examples is the most crucial point, regardless of exactly how they are derived.

focus projection, focus will be able to project from the VP-internal traces in (11a,b) and (12b). This structural difference is then the explanation for the correlation of the different readings of *ga* phrases with predicate types noticed by Kuroda and described above in Section 2.2.1.

One further advantage of assimilating the "exhaustive listing" reading of *ga* to narrow focus is that the kind of explanations that have been developed to explain the readings of the latter—possibly encoded in different ways in different languages—can simply be extended to Japanese, as pointed out in Shibatani 1990: 270–271.

Taking the exhaustive listing reading of ga to be an instance of narrow focus does not however entail that ga is itself a focus marker (only that it is compatible with being contained in a focused constituent). Indeed, there are considerable and well-known problems with the analysis of ga as a focus marker.

First, as Shibatani observes, it does not occur freely on constituents other than the subject. For that reason it is very widely assumed to be a case-marker, entirely parallel to the accusative case-marker o.⁷ Second, although the correlation with predicate-type seems to mirror the pattern of focus projection in English, the correlation with clause-type (Section 2.2.2 above) does not. That is, while the *ga*-marked subject of an individual-level predicate in a subordinate clause is not necessarily interpreted with narrow focus, the embedded subject of such a predicate in English continues to disallow focus projection, so that there is an ambiguity in the scope of the focus in (13b) that is not evident in (13a):

- 13. a. I only said that [_F BLOWFISH] were poisonous.
 - b. I only said that $[_{F} [_{F} BLOWFISH]$ were available].

⁷ But see Vermeulen 2005 for an analysis of ga as a marker for focus when attached to adjuncts in the "multiple nominative" construction.

There is no natural extension of any theory of focus projection that can explain why or how there should be a main clause / subordinate clause asymmetry in Japanese in this respect, should ga-marking indeed encode focus in the way that the A accent does in English.

Heycock 1993 proposes a weaker link between *ga* marking and information structure. There it is argued that *ga* does not encode information status except in an indirect, negative, sense; a *ga*-marked subject (like an *o*- or *ni*-marked constituent) is, by definition, not *wa*-marked. That paper then makes the following additional assumptions:

- I. Nominals, but not predicates, that are topics must be marked with wa
- II. Every sentence, but not every clause, must have a topic (whether overt or null).
- III. Topics and foci are necessarily disjoint (this follows from Vallduví's definition of topic/LINK and focus, to be discussed below).
- IV. Stage level predicates, but not individual-level predicates, have a Davidsonian event argument that is available as a topic.

Given these assumptions, a sentence with a stage-level predicate such as (@14) can have the Davidsonian event argument as the topic; the subject may therefore be the focus, but the focus could equally well be all the overt material⁸.

14. $[_{F} [_{F} John ga] kita]$

John GA came

JOHN came.

When the predicate is stage-level, however, there is no Davidsonian argument available. In (15), therefore, the only available topic is the predicate (if the subject were topic, it would be

⁸ Presumably the focus could also be the predicate alone, a possibility not discussed in Heycock 1993; in this case the subject would have to be the TAIL in Vallduví's terminology.

marked with *wa*). This leaves the subject as the only possible focus, so that wide focus on the entire sentence is excluded.

15. [_F John ga] kasikoi John GA smart JOHN is smart.

Finally, since the requirement for a topic is a requirement on sentences, rather than clauses, it is possible for the clause in (15) to have an all-focus reading if it is embedded, given that the requirement for a topic can now be satisfied by some other element in the sentence.⁹

This analysis also accounts for the observation that in a matrix clause with no *wa*-phrase and multiple nominatives, only the first nominative has to be interpreted as being in focus, while the others do not necessarily receive this interpretation.

16. nisi no hoo ga ame ga taihen desu west GEN alternative NOM rain NOM great is*It is in the west that the rain is a nuisance.*

Again, in the absence of a *wa*-phrase the predicate must be taken to be the topic. On the assumption that in Japanese a clause can be abstracted over to produce an (individual-level) sentential predicate (see Heycock & Doron 2003 for discussion), non-initial nominatives,

i. a. The diners complained because plates were dirty/greasy.

⁹ It should be noted that, here as elsewhere, the concepts of stage-level and individual-level predicates that are appealed to are not unproblematic. In particular, adjectival predicates that express (or can express) transient states can be the subject of all-focus sentences like (@14), and this is true in English as well, and this is consistent with the discussion in the text if these are taken to be stage-level. At the same time, it is often proposed that stage-level predicates license a weak reading for bare plural subjects. So we would expect that the same predicates that license the all-focus sentences will also license weak (existential) readings for bare plurals. But, as noted in McNally 1998c, this is not the case, as shown by the absence of (pragmatically appropriate) existential readings in examples like (i):

b. Turn on the dryer again because shirts are still damp.

while they cannot be topics themselves—else they would have to be marked with wa—can be included in a predicate that is the topic. But in this case at least the highest nominative must be excluded from the topic and therefore treated as focal, since the sentence requires not only a link/topic but also a focus.

Essentially the same assumptions are used in Tomioka 2000, to appear (a) to explain the contrast between (17), which is ambiguous between a locative and a part-whole reading, and (18), which has only the locative reading unless *enzin ga* (engine GA) is read with narrow focus, and also to explain why this contrast does not obtain in subordinate clauses (where both readings are possible for both orders, without any particular focus assignment):

- (17) Torakku ni enzin-ga aru
 truck LOC engine-GA exist
 Locative: 'There is an engine in the/a truck (possibly on its bed)'
 Part-whole: 'The/a truck has an engine (as one of its essential parts)'
- (18) Enzin ga torakku ni aru
 engine GA truck LOC exist
 Locative: 'There is an engine in the truck (possibly on the truck's bed.)
 Part-whole: 'The/a truck has an engine (as one of its essential parts)' only
 possible with narrow focus on enzin

This account exploits the fact that *wa* may optionally be omitted (but that when this is the case the result is a bare PP or bare (non case-marked) nominal, so *torakku ni* in (@17) can be interpreted as a topic, but *enzin ga* cannot) and also on the hypothesis that every sentence, but not every clause, must have a topic.

To summarise: there is a fairly general consensus (modulo the dissent, mentioned above, of Kuroda and Vermeulen) that ga should not be singled out as carrying any semantic or

pragmatic information; its alternation with wa is only privileged with respect to the alternation between e.g. o (the accusative marker) and wa in the sense that it appears that subjects are an unmarked choice of topic.

3.2. *Wa* and topic

If the range of definitions and uses of the word "focus" is wide, the situation is possibly even worse for "topic;" the discussion here is necessarily limited to a small subset of the definitions in the literature, which are discussed because of their relevance to the work on Japanese (and vice versa).

3.2.1. Topic as anchor for information

The notion of topic that is appealed to in Heycock 1993, Tomioka 2000, to appear (a,b) is Vallduví's concept of LINK. For Vallduví, the participants in a discourse each maintain a knowledge store that is taken to be a Heimian collection of entity-denoting file cards, each containing information relevant to the entity denoted by the file card. The role of INFORMATION PACKAGING is to aid the hearer by giving instructions as to how to update this database. There are three primitives of INFORMATION STRUCTURE (taken to be the level of representation at which these instructions are encoded): a sentence may be articulated into FOCUS and GROUND, and the ground may itself be composed of a LINK and a TAIL. The link points to a specific file card where the (new) information carried by a given sentence is to be entered; the focus is that information; and the ground gives further information about where in the record the new information is to be entered. Note that for Vallduví the only one of these elements that is obligatory in every sentence is the focus (see McNally 1998b for discussion of the necessarily default nature of focus as an update instruction). Heycock's proposal, adopted also in Tomioka to appear (a), that every sentence must have a link, even if phonetically null, is a modification of his framework.

Vallduví's notion of link embodies in a quite direct way the intuition that a sentence topic is what the sentence is "about." The proposal of Portner & Yabushita 1998, 2001 is similar to Vallduví's, as they state, in that they also take topics to be entities, with which information is associated. Rather than positing a distinct level of representation (Vallduví's Information Structure), however, they instead propose an enriched notion of the COMMON GROUND of a discourse, defined as a set of infinite sequences of pairs, where each pair consists of an entity (the link) and a set of possible worlds (the information entered with respect to that link). Portner & Yabushita support this view of topics (at the least, of noncontrastive *wa*-marked phrases in Japanese) by sequences of sentences showing that discourse entities can most felicitously be picked out by information which was contributed while the entity in question was encoded as a topic. However, as they acknowledge, intuitions about these discourses are not clear-cut. Portner & Yabushita also show that their adaptation of the file-card approach to topics can explain the obligatory wide scope for the *wa*-phrase in (19b), which contrasts with the minimally different (19a):¹⁰

- 19. a. John dake ga kuru to omotte ita.John only GA come that thought*I thought that only John would come*.
 - b. John dake wa kuru to omotte ita.John only TOP come that thoughtJohn is the only one who I thought would come.

One further support for this way of approaching noncontrastive *wa* is that certain quantified expressions appear to be incompatible with noncontrastive *wa*. Kuno 1973 points this out for

¹⁰ Given that *think* is the kind of verb that tends to allow embedded root phenomena, it is actually not clear why the topic should not just take the highest scope within the subordinate clause.

oozei no X (many X) and *dareka* (somebody), and Tomioka (to appear b) gives a longer list of what he calls ANTI-TOPIC ITEMS (ATIs) and seeks to account for their incompatibility in terms of the properties of links.

3.2.2. Topic as expressing an active mental representation

Portner 2005 proposes a modified view of topics-as-entities, in which topicalization encodes an expressive meaning in the sense of Potts 2003:

20. "(I report that) my/the speaker's mental representation of X is active"

This approach is consistent with (although it does not entail) a less structured linguistic representation of the common ground of a discourse; on this approach the notion of "filing" information about an entity under a particular heading becomes a pragmatic effect that is achieved indirectly (as a perlocutionary, rather than illocutionary act), through the explicit mention of the speaker's mental state. In relating sentence topics to the speaker's mental state, rather than to instructions to update the hearer's representation, Portner suggests a system which is potentially much more consistent with Kuroda's view of *wa* phrases, discussed below in Section 3.3.1, although the motivations for this outlook appear to be quite different. Portner makes the interesting point that the possibility of topics in embedded contexts argues for a speaker-oriented account, since not only verbs such as *tell* or *say*, but also *think* allow embedded topics, as shown for Japanese *wa* phrases by this example from Kuno, which allows an indirect speech interpretation:¹¹

21. John wa boku wa oobaka to omotte iru John WA I WA idiot that thinking is *John thinks that I am a fool.*

¹¹ This example also allows the direct quote interpretation *John thinks "I am a fool"*; this is irrelevant for the argument here.

The crucial point is that while *tell* and *say* may introduce an addressee, this is not true of *think*; what they do however all have in common is that they introduce the referent of the subject as a deictic centre, as the speaker is the deictic centre for an unembedded clause. Whether or not this approach could incorporate some aspects at least of Kuroda's view of the interpretation of *wa* phrases as the subject of categorical judgments would depend largely on how the notion of the speaker's mental representation being active was cashed out.

3.2.3. Topic as question (under discussion)

An alternative view to topics as (pointers to) entities is that topics are anaphoric to OPEN QUESTIONS, typically modelled as sets of propositions (see Portner & Yabushita 1998, McNally 1998a for useful overviews). This approach is most associated with von Fintel 1994, Büring 1994, Roberts 1996, 1998; this definition of topic seems also to some extent to correspond to Steedman's (2000a,b) THEME.

Researchers on Japanese have not as yet tended to adopt this view of topic as a way of explicating the distribution and interpretation of noncontrastive *wa*. The main exception is the proposal of Fiengo & McClure 2002; although they couch their analysis in terms of an Austinian theory of assertive speech act types, the dimension that is taken to explain the distribution of *wa* (not just noncontrastive *wa*: Fiengo & McClure, like Shibatani 1990, aim to give a unified account of both interpretations) is DIRECTION OF FIT, which distinguishes what is GIVEN from what is PRODUCED. The definition of these Austinian terms is not made very clear, but they propose exactly the question-answer heuristic: if the sentence *That bird is a nuthatch* is produced as an answer to *What do you call that bird*? the predicate *is a nuthatch* is "produced" while the subject is "given". It thus seems that at least as a first approximation

produced = focus/rheme, and given = ground (in Vallduví's terminology).¹² And their account of *wa* is then that *wa* is placed on an NP if and only if that NP refers to an item which is given (p. 13). Crucial to their account are the equivalent or close parallel of two assumptions explicitly made also in Heycock 1993: they assume that in performing an ASSERTIVE SPEECH ACT a speaker must not only "produce" something (every utterance must have a focus/rheme) but must also take another thing as given (cf assumption II in Section 3.1 above); and they note that a predicate, unlike an NP, can be "given" without being marked with *wa* (cf assumption I).

The lack of a clear definition for what is "given" makes it hard to see how this analysis handles the problem that what is *wa* marked in Japanese typically does not include all the ground (non-questioned, presupposed, not-at-issue) material. For example, (22B) is a (pedantic) answer to the question in (22A); the variant in (22C) is, as Fiengo & McClure note, not a natural answer, and the *wa* marked object can only be read as highly contrastive:

- 22. A: Dare ga keeki o tabeta no?who GA cake ACC ate Q*Who ate (the) cake?*
 - B: John ga keeki o tabeta.John GA cake ACC ate

John ate (the) cake.

C: # John ga keeki wa tabeta. John GA cake WA ate *John ate (the) cake*.

¹² As in all theories of topic as question-under-discussion, Fiengo & McClure note that the question heuristic is only a way to set up a context that (almost) guarantees that the utterance

The question here is why in the straightforward answer the object *keeki* (cake) is not marked with *wa*, as it appears to be a part of the presupposition of the answer, just as much as the verb. Fiengo & McClure however state that although the cake is previously mentioned, it is not "given" in the Austinian sense, and caution against reducing Austin's distinctions to others (p. 39); It is not obvious from their proposal, however, what definition of "given" will suffices to make the necessary cut here.

The lack of an obvious distinction between elements within the ground is thus one problem for a question-under-discussion theory of non contrastive *wa* phrases/topics. Another, pointed out in Portner & Yabushita 1998, is that noncontrastive *wa* phrases can occur in questions. In the case of an example like (23), the question that is presupposed by the topic (or that the topic is anaphoric to) is identical to the question actually asked; this seems paradoxical.¹³

23. John wa nani o yatta no?John WA what ACC did Q*What did John do?*

Finally, Robert's (1996, 1998) question-under-discussion analysis of Jackendoff's "B" contour (Steedman's L+H* LH% "theme" tune) in English, which is suggested in McNally 1998a as a possible crosslinguistically valid account of topic-marking, only gives an account of contrastive topics, and does not, at least without modification, shed any light on the use of *wa* in situations where no such interpretation is at issue (we will return to the question of contrastive topics in Section 3.4).

It should however perhaps be noted that although Heycock 1993 and Tomioka 2000, to appear (a, b) adopt Vallduví's theory of topics/links in their accounts, it is crucial for both that

supplied as answer is a speech act of a certain type, but that the same speech act can occur in discourse without there being an overt question in the context.

predicates can function as topics, since this is the basis for the accounts of narrow focus on the subject in examples like (15) and (18), repeated here as (24a,b).

- 24. a. [_F John ga] kasikoi John GA smart John is smart.
 - b. Enzin ga torakku ni aru
 engine GA truck LOC exist
 Locative: 'There is an engine in a car (possibly on the truck's bed.)
 Part-whole: 'The/a truck has an engine (as one of its essential parts)' only
 possible with narrow focus on enzin

It is not clear that this is really consistent with the entity view of topics (although of course properties can be anaphorically referred to in discourse and so at least are able to contribute discourse entities). Matsuda 1997 resolves this by proposing that in such sentences the predicate is actually a nominalized clause, as schematized in (25a) in fact the same headless relative (although a certain amount of syntactic/morphological detail must be dealt with) that occurs in the initial position in the specificational sentence in (25b)¹⁴, which is argued to be derived from the same basic structure by overt topicalization of the headless relative (see den Dikken to appear for a very similar derivation for specificational sentences in English). Since Matsuda adopts the common assumption that there is a structurally defined position for topics at the left periphery of CP, she further argues that (25a) involves LF-movement of the free relative to this position.

¹³ One might try to salvage this by appealing to the notion of accommodation; but this risks weakening the proposal to the point of vacuity.

¹⁴ Matsuda uses the term *specificational* to refer to any sentence with obligatory narrow focus, in a similar vein to Declerck 1988; here I stick to the less inclusive definition where specificational sentences are a type of copular sentence.

- 25. a John ga [_{CP} Op_i [_{IP} [_{PrP} t_i kasikoi] no] John GA smart NMZ JOHN is smart.
 - Kasikoi no wa John da smart NMZ John IND *The smart one is JOHN*.

However, in later work, Matsuda herself raises an interesting problem for this type of approach, as well as that of Heycock 1993: namely that it seems to predict that the two sentences in (@26) should have identical Information Structures:

- 26. a. Isya wa Hiromi da. doctor WA Hiromi IND *The doctor is Hiromi*
 - b. Hiromi ga isya da.
 Hiromi GA doctor IND
 HIROMI is the doctor.

However, she argues that if two speakers are looking at a scene containing a baseball player, a policeman, and a doctor, and one of them suddenly realises that the one in the white coat is their mutual friend Hiromi, (27a) is a felicitous reponse, but (27b) is not:

27. a. Are, isya wa Hiromi da

oh doctor WA Hiromi IND *Oh, the doctor is Hiromi.*

- b. # Are, Hiromi ga isya da
 - oh Hiromi GA doctor IND

Oh, HIROMI is the doctor.

This asymmetry is an interesting one, and certainly a challenge for analysis.¹⁵ However, it is debatable whether the effect should be attributed to the behaviour of topics/*wa*-phrases. Copular sentences like (27a,b) raise notoriously thorny problems, despite their surface simplicity (see for example Higgins 1973, Heycock & Kroch 1996, Moro 1997, Schlenker 2003, den Dikken to appear, and references therein). In particular, we can see in Japanese that asymmetries persist even in subordinate clauses where *wa* marking is not an issue. For example, in the scenario set out in (28), there is a sharp difference in the acceptability of the two continuations: but note that in neither case is topichood at issue, since the relevant clause is the antecedent of a conditional, and its subject therefore not marked with *wa* (and not a topic, on any theory).

28. Scenario: the speaker and the hearer both know that Ken has a single sister, and that her name is Kimiko, but they do not know whether she is younger or older than Ken. They are debating whether she would have been old enough to see the moon landing.

a. Mosi Kimiko ga Ken no imooto datta to sitara,

if Kimiko GA Ken GEN little sister was COMP make-COND nenrei-teki ni itte tuki-tyakuriku o miteta hazu ga nai age-wise to speak moonlanding ACC saw expectation GA exists-NEG If Kimiko is Ken's little sister, she couldn't have seen the moon landing.

b. # Mosi Ken no imooto ga Kimiko datta to sitara,

¹⁵ To my ear, there is an effect in English as well, although it is weak (whether weaker than in Japanese is hard to establish, as at least some Japanese speakers I consulted do not report any difference in acceptability between Matsuda's (a) and (b) example).

if Ken GEN little sister GA Kimiko was COMP make-COND nenrei-teki ni itte tuki-tyakuriku o miteta hazu ga nai age-wise to speak moonlanding ACC saw expectation GA exists-NEG *If Ken's little sister is Kimiko, she couldn't have seen the moon landing.*

This contrast shows that non-presuppositional use of *Ken no imooto* (Ken's sister) is possible in the second position in the copular sentence, but not in the subject position. It follows that the interpretation when the "same" phrase is topicalized from the two positions is not predicted to be equivalent. This alone is sufficient to predict that pairs like (27a,b) also may not be equivalent.

English of course shows exactly the same effect (the translation of (28b) is infelicitous in the given scenario, and contrasts with that of (28a)). But note that the Japanese examples show that this fact does not have to do with the topic status of any element in the clause, since it obtains also in this subordinate clause. Thus, while copular sentences containing only two noun phrases may seem to be the simplest, most minimal structures for investigating information structure, in fact they embody asymmetries which appear to be independent of whatever is encoded by *wa* (a fact of no little interest for those interested in the syntax of specificational sentences).

Returning to the possibility of non-nominal topics: the fact that predicates may (according to Heycock and Tomioka) be noncontrastive topics is perhaps reconcilable with a view of topics as entity denoting, given a sufficiently inclusive notion of "entity". Potentially more troubling are cases with a covert/null topic, such as this example from Tomioka to appear (a), where it is argued that the broad focus reading available for A's answer shows that there must be such a topic, and it seems to be suggested that this topic must be sentential or propositional in nature:

- 29. A: Motto anzen-ni ki-o tuketa-hoo-ga ii-desu-yo. more safety-DAT attention-ACC pay-rather-GA good-cop-particle *You'd better pay more attention to your safety.'*
 - B: Soo-desu-ka?

so-cop-Q

Really?

A: Ee. Tatoeba, kagi-ga toire-no mado-ni nai-de-syoo?
yes for example lock-GA toilet-GEN window-LOC neg-cop-particle
Abunai-desu-yo.
dangerous-cop-particle
Yes. For instance, the bathroom window doesn't have a lock, right? That's dangerous.

It is however notable that examples with null topics show asymmetries that parallel cases with overt nominal topics. Thus for example the contrast between (30B) and (30B')—where the nominative is possible in the former with a broad focus reading, but can only yield a (disfavoured in this context) narrow focus reading in the latter—seems to parallel the contrast that Kuno (1973) pointed out between (31a) and (31b).¹⁶

- 30. A: doosite sonna-ni hayaku kaeritai no?why so early leave-want QWhy do you want to leave so early?
 - B: [_F miti-ga abunai]

roads-GA dangerous

¹⁶ Heycock 1993 notes a similar pattern with respect to focal stress on the subject in English in these contexts.

The roads are dangerous.

B':?#[F Newark ga] abunai

Newark GA dangerous Newark's dangerous.

- 31. a. kono kurasu wa dansei ga yoku dekiru
 this class WA males GA well can
 Speaking of this class, the boys do well [Not necessarily narrow focus on boys]
 - kono kurasu wa John ga yoku dekiru
 this class WA John GA well can
 Speaking of this class, JOHN does well [Necessarily narrow focus on John]

If the contrast between the definite and the proper name in subject position derives from the possibility of a null possessive coreferential with a topic in the former case only, this parallel could be taken as evidence in favour of an entity-type topic in examples like (30B) as well (suggesting that the topic in (31b) has a special status in not "counting" as the link for sentence . However, in the absence of a worked out account this remains for now at the level of speculation.

3.3. Wa as the marker of a categorical judgment

A notable critique of the assumption that the distribution and interpretion of *wa* are to be explained in terms of information structure (whether this is viewed as a distinct level of representation, as in Vallduví 1992, or as an articulation of the common ground, as in Portner & Yabushita 2998) has been enunciated over several decades by Kuroda (1965, 1972, 1990, 1992, 2005). Kuroda proposes that there are two types of JUDGMENTS, which he describes as cognitive or mental acts (Kuroda 2005: 15): CATEGORICAL/PREDICATIONAL judgments and THETIC/DESCRIPTIVE judgments. These judgments are EXPRESSED by utterances, in which the

speaker commits him/herself to the truth of the propositions which they are said to REPRESENT, in a type of speech act. On the common assumption that speech acts are not generally the right type of object to combine with other linguistic objects, this means that judgements are generally not expressed in embedded clauses. In the most recent reworking of his ideas on judgment types, Kuroda maintains that sentences containing a noncontrastive *wa* (*wa*-topicalized sentences) invariably express categorical/predicational judgments. Sentences that do not may either express thetic/descriptive judgments (as must be the case when they appear as matrix clauses) or, in a context where a judgment is not made (as for example in an embedded clause), they may simply represent propositions.¹⁷

The notions of categorical/predicational and thetic/descriptive judgments are, in Kuroda's view, entirely independent of discourse notions of topic and focus (note that this is not necessarily the case for other linguists who have appealed to these concepts since they were introduced into linguistic theory by Kuroda from the philosophical work of Franz Brentano and Anton Marty; thetic sentences are frequently assumed to be defined as "all focus" utterances). In Kuroda 2005 in particular arguments are given in two directions against the equation of noncontrastive *wa*-phrases and information-structural concept of topic/link (these arguments would also apply to the kind of theory proposed in Fiengo & McClure 2002 as I understand it): he argues both that *wa* phrases may constitute informationally defined foci, and that *ga* phrases may constitute informationally defined topics. Further, Kuroda argues that the "exhaustive listing" interpretation of *ga* is independent of focus (and *a fortiori* is not the result of a configuration of narrow focus).

¹⁷ Kuroda generally limits his discussion of these judgment types to declaratives; it is not exactly clear how questions, for example, would fit into this categorization.

Evidence against the hypothesis that *wa* is a topic marker is constituted by dialogues in which a *wa* phrase in an answer corresponds to the *wh*-phrase in the question (the classic diagnostic for focus). (32) is one example (Kuroda's (5,6)):

- 32. A: Dare ga oo-ganemoti desu ka? who GA big-rich is Q *Who is very rich?*
 - B: Microsoft no syatyoo no Gates-san wa/#ga ooganemoti desu
 Microsoft GEN president GEN Gates-HON WA/GA big-rich is
 Mr Gates, the president of Microsoft, is very rich.

The force of this as a counterexample depends on *Microsoft no syatyoo no Gates-san wa* not being taken as a contrastive topic; Kuroda argues that it does not carry the implicatures that are characteristic of contrastive topics (p. 8), but this judgment appears to be a delicate one, not shared by all speakers.¹⁸

Evidence against the hypothesis that a ga phrase cannot constitute a topic comes from examples like (33) (Kuroda's (18)), where *ano hito* (that person) is given in the question, and is the expected topic of the answer:

- 33. A: Ano hito wa dare desu ka?that person WA who is QWho is that person?
 - B: Ano hito wa/ga ano yuumeina Microsoft no syatyoo no Gates-san that person WA/GA that famous Microsoft GEN president GEN Gates-HON

¹⁸ The # indicator of infelicity for the ga version is Kuroda's, indicating that this choice implicates that Gates is the unique individual in the discourse context with the given property and that a context in which this would be the case is "marked".

desu yo.

is EMPH

That person is that famous president of Microsoft, Bill Gates.

This last example is also used as evidence that the exhaustive listing implicature is not the result of narrow focus, since if *ano hito ga* is not the focus of B's response but nevertheless gets an exhaustive listing reading this must mean that this reading is derived in some other way. However, Kuroda notes that the use of *ga* in such examples is only acceptable when the nature of the predicate (possibly together with world knowledge), entails that only one entity could satisfy it. This is of course true in (33) but false in (34), which therefore only allows for *wa* in (33C) (absent a particular context in which there is known to be only one office worker) (p. 11):

- 34. A: Mori-san wa Toyota no dareka/hito desuMori-HON WA Toyota GEN somone/person isMori-san is someone from Toyota
 - B: Mori-san wa Toyota no nan desu ka?Mori-HON WA Toyota GEN what is Q*Who/what of Toyota is he?*
 - C: Mori-san wa/#ga zimuin desu Mori-HON WA/GA office worker is *Mori-san is an office worker*

Thus it appears from this description that *ga* when used on a topic carries a *presupposition* of uniqueness. This certainly does not follow from the information-structural view of how *ga* functions; it is not immediately clear whether it follows from Kuroda's basic assumptions or has to be stated as an independent principle. It should also be noted that if the name of an

unfamiliar person (e.g. *Miller san to yuu hito 'a person called Miller')* is substituted for *Gates*, the use of ga in (33B) is strongly dispreferred (Satoshi Tomioka, personal communication), suggesting that the answer in (33B) with ga is possible only to the extent that *Gates* is taken to be the topic in some wider context.¹⁹

Kuroda's own proposal, as stated above, is that wa is used only to express the subject of a categorical judgment; ga is used either in the expression of a thetic/descriptive judgment or (the elsewhere case) in a context where no assertion is being made, as in (most) subordinate clauses. Descriptive judgments are said to "affirm" either what is given in perception (this is the most commonly cited type of example of a thetic sentence) or what is "given in the conceptual understanding of a cognitive agent." This latter characterization is important because it is necessary for extending the notion of thetic/descriptive judgment to the responses to questions: in particular, to account for the use of ga on the subject of an individual level predicate in an example like R's answer in (35) (p. 33):

- 35. Q: Dare ga Nihon iti no sakka desu ka?who GA Japan one GEN author is QWho is Japan's greatest writer?
 - R: Natsume Soseki ga Nihon iti no sakka desu.
 Natsume Soseki GA Japan one GEN author is Natsume Soseki is Japan's greatest writer.

¹⁹ Kuroda argues explicitly against such an interpretation of (33B), citing the fact that it could be followed by an explicit statement that A may not know who Gates is, such as *to wa ittemo*, *seken sirazu no anata no koto dakara*, *Gates-san to itte mo dare da ka siranai desyoo* 'but, as unconcerned about the real world as you are, you would not know who Mr Gates is', but it needs to be shown that such a follow-up is not necessarily interpreted as a repair, indicating that B realises that the presupposition of her/his statement (that A knows Gates' identity) may be incorrect.

Kuroda's idea is that the inquiry "brings into R's awareness the conceptual situation of Natsume Soseki being the greatest writer, and R responds by describing this "conceptually grasped" scene. Given that Kuroda notes that R might also respond as in (36), however, he further argues that an answer can also consist of the expression of a categorical judgment about an author:

36. R: Nogami Yaeko wa, kaigai de sirarete imasen ga, Nihon iti no sakka desu Nogami Yaeko WA abroad LOC known is-NEG but Japan one GEN author is *Nogami Yaeko, though she is not known abroad, is Japan's greatest writer.*

The possibility of (36) as a response in the context of (35Q) is certainly problematic for the information-structural account of *wa*. Possibly the line that could be pursued by a defender of such an account is that this could be an instance of a hearer employing a set of "packaging instructions" for her/his answer that are not those suggested by the questioner. That something like this might be at issue is suggested also by his other example (p. 10):

- 37. A: tokorode, dare ga Nihon iti no sakka desyoo?
 by the way who Japan one GEN author be-would
 By the way, who would be Japan's greatest writer?
 B is silent for a while, pondering on the question, then says
 - B: Un, soo da, Nogami Yaeko wa Nihon iti no sakka desu yo
 yes so is Nogami Yaeko WA Japan one GEN author is EMPH
 Yes, that's right, Nogami Yaeko is Japan's greatest writer, I would say.

B begins her/his answer by apparently agreeing with something: but it cannot be with the question. So it seems that s/he is presenting her/his announcement as confirmation of something that the original questioner is asked to accommodate as having been under discussion.

Of course, if responses to questions are allowed freely to embody an information structure that is quite different from that suggested by the immediate context, an account in terms of information structure loses all predictive power. It seems to me at this stage that the pervasiveness of the problem posed the kind of example that Kuroda adduces remains to be fully determined, and that some theoretically-inspired corpus-based work could be very useful in this area.

As far as the exhaustive listing reading is concerned, Kuroda maintains that it is an implicature that follows from a maximality constraint on descriptions that requires that "a description is to be chosen that makes the grasped situation a maximal fit" (p. 38). Thus the sentence in (38) implicates that Mori-san is the only office worker from Toyota in the context:

38. Mori-san ga Toyota no zimuin desu.
 Mori-san GA Toyota GEN office worker is
 Mori-san is an office worker at Toyota.

This maximality constraint does have to be stipulated to apply to the subject argument only, since there is no parallel exhaustiveness implicature from objects (or for that matter from the predicate itself). There does not seem to be any account of the difference between stage-level and individual level predicates with respect to this kind of implicature, however: in fact it is stated that the maximality constraint applies equally in both cases (p. 39). What is to be made then of the intuition that there is a difference between sentences like (14) and (15) above, repeated here as (39a,b)?

- 39. a John ga kita John GA came *JOHN came*.
 - b. John ga kasikoi

John GA smart

JOHN is smart.

Kuroda's claim about examples like (39a) is that there *is* an exhaustiveness implicature with respect to the subject, but that the hearer accommodates a restricted domain within which this exhaustiveness holds: "we take the relevant context of the utterance to be narrower: the perceived situation that is described contains only one person [...] The hearer can understand that the speaker's visual perception is so narrowed as to make this situation a maximal fit." Just as was observed above with respect to weakening the analysis offered by the information-structural account, the risk here is that the analysis loses its predictive power. In particular, is there an account of why the "conceptually grasped" situation in an example like (39b) should not also be understood to be narrowed? Without such an account, the intuition that there is a difference between cases with stage-level and individual-level predicates, to the extent that it is robust, is unexplained.

3.4. Contrastive wa

Thus far we have mainly restricted the discussion to noncontrastive *wa*. Treating noncontrastive and contrastive *wa* separately is a common strategy, but at least some authors have attempted to achieve a unified analysis of wa—see in particular Shibatani 1990 and Fiengo & McClure 2002. Before looking at the facts and analysis of Japanese, it is probably worth clarifying some important concepts.

3.4.1. Contrastive themes and contrastive rhemes

First, and most importantly, it is necessary to appreciate that contrast is a dimension that is, at least pretheoretically, orthogonal to the theme/rheme or topic/focus dimension(s). This point is made explicitly in Fiengo & McClure 2002: 24–27, but is perhaps most clearly (if

informally) set out in Vallduví & Vilkuna 1998 (see also Kiss 1996).²⁰ Vallduví & Vilkuna argue that much of the discussion of focus has been confused by the conflation of two different concepts: the notion of focus/rheme in the sense we have been using it here on the one hand, and a use that comes more from the semantics literature where it refers to an operator-like element which crucially ranges over a set of alternatives. Vallduví & Vilkuna propose that these two concepts should be clearly distinguished, and that in fact operators ranging over alternative sets can be found associated both with thematic and with rhematic domains. They propose for such operator constructions the term KONTRAST. Kontrast in association with rhematicity results in "contrastive focus", or what has sometimes been called IDENTIFICATIONAL FOCUS or (Vallduví & Vilkuna's term) IDENTIFICATIONAL KONTRAST; contrast in association with thematicity results is "contrastive topics."

One type of evidence for an independent category of kontrast comes from Finnish, where Vallduví & Vilkuna argue that there is a distinct position CP-initial position for kontrast that does not distinguish between theme and rheme, as illustrated by these examples (Vallduví & Vilkuna 1998: 90–91).²¹

40. What things did Anna get for her birthday?

Anna sai [_R KUKKIA] Anna got flowers

41. What is it that Anna got for her birthday?

[R KUKKIA] Anna sai.

²⁰ Steedman 2000a,b also argues that there can be sets of alternatives associated with the theme as well as the rheme; he differs from Vallduví & Vilkuna however in taking the rheme alternative set to be an essential part of the definition of rhematicity, and thus in not distinguishing between two different types of rheme.

²¹ In these examples the R subscript indicates Rheme. Vallduví & Vilkuna note that in (@42) and (@43) there is only one perceived intonational peak, but that in (@44) there are two, just

42. What about flowers? Did Anna have to buy some or did she get them for free?[Context: the speaker knows that Anna got some of the decorations for free and that others she had to buy]

Kukkia Anna [_R SAI]

The claim is that in (41) kukkia is a contrastive focus, while in (42) it is a contrastive theme.²²

3.4.2. Contrastive wa as a contrastive theme

With this background, it seems reasonably clear that Japanese contrastive *wa* marks elements that are both konstrastive and thematic; it does not mark contrastive rhemes.²³ Thus the question *Which boy left, Ken or Tamio?* cannot be answered with (43) without generating the implicature that the speaker is not sure about Tamio, just as is the case for the use of the B accent in English in this context.

43. # Ken wa kaetta.

Ken WA left *Ken left*.

This fact makes it attractive to look for an analysis which can unify the noncontrastive use of *wa* and this contrastive use. A further motivation is that at least sentence-initial contrastive *wa* phrases appear to be able to satisfy the requirement that a sentence have a topic/link, given that (@46) is well-formed, and the *wa* phrases have the typical contrastive interpretation:

as there are in English cases with contrastive topics; unlike English however there is no difference in intonation contour between the two.

²² Vallduví & Vilkuna further cite Japanese as providing evidence for the independence of focus, arguing that the possible cooccurrence of *wa* with *dake* (only), widely assumed to be a "focus sensitive particle," in examples like (19b) above demonstrates that such "focus" sensitive elements actually associate with kontrast. A simple equation of *dake* and *only* is not possible however (Futagi 2004); how exactly *dake* interacts with *wa* and focus requires further research.

44. Mary-wa kasikoi ga John wa kasikoku naiMary WA smart but John WA smart NEGMary is smart but John is not.

Finally, as noted in Watanabe 2003: 549, the initial position in a German Verb Second sentence shares with Japanese *wa* marking the property that subjects and scene-setting adverbials can occur there with no implication of contrast, while internal arguments seem to be interpreted as contrastive topics; to the extent that this parallel is strong (detailed investigation remains to be done) this makes the postulation of simple ambiguity for Japanese *wa* less plausible.

As mentioned earlier, Fiengo & McClure attempt a unified analysis, against the background of a definition of *wa* phrases in terms of an Austinian notion of givenness that appears to resemble Vallduví's notion of ground or the concept of an open question. Their proposal runs something as follows:

- I. When making an assertive speech act, the speaker must produce something [provide a rheme] and take another thing as given.
- II. The default/simplest mapping between syntactic structure and speech act maps the constituent in sentence-initial position to the given item.
- III. Marking any other part of the sentence as referring to a given item, since it is not required by (I) above, implicates a contrast with some other item which, when combined with the rest of the sentence, would have resulted in a false statement (a predicate whose sense did not MATCH (another Austinian term) the item referred to by the sentence-initial given constituent).

 $^{^{23}}$ In this Japanese *wa* appears to differ from Korean *nun* (Han 1998). Further evidence that these two elements are not functionally equivalent can be found in e.g. Choi 1997, Shimojo &

The first two assumptions are needed to explain why (matrix) sentence-initial *wa* phrases do not generate implicatures of contrast. Notice that the reference to syntactic structure is also necessary, and does not follow from anything else: it is a stipulation about the syntax of givenness. Taken together, these assumptions amount to proposing that there is a syntactic position for a "given" element that must be filled. Also notice that III could equally well read "taking the referent of any other part of the sentence as referring to a given item (and therefore marking it with *wa*)" since being given is a necessary and sufficient condition for being marked with *wa*. This is where we come back to the problem of understanding exactly what givenness amounts to, since it cannot be the same as what is common to all the propositions that make up the open question.

If we give up on the attempt to provide a fully unified analysis, contrastive topics seem to be amenable to a treatment in terms of a question-under-discussion approach (a hypothesis also put forward in Tomioka 2000, and which is largely consistent with Vallduví & Vilkuna's description of the nature of +kontrast +theme elements, since the question-under-discussion approach precisely assumes the kind of alternative semantics taken to be definitional of kontrast). For some recent work on this type of approach to contrastive topics in Japanese, see Hara 2003, to appear.

A brief speculative comment about contrastive *wa* before concluding. It has been known at least since Kuno 1973 that contrast can "project" in Japanese. This is true of the sentence that Kuno 1973 gave to exemplify contrastive *wa*:

45. Ame wa hutte imasu ga (taisita koto wa arimasen) rain-WA falling is but (important matter WA exists-NEG *It is raining, but it isn't much.*

Choi 2000.

He gives an even more striking example in a footnote, attributing it to Minoru Nakau:

46. Ame wa hutte imasu ga kasa wa motte ikimasen rain-WA falling is but umbrella WA take go-NEG *It is raining, but I'm not taking my umbrella with me.*

Although *wa* attaches to the noun *ame* (rain), it is clear that this constituent is not contrasted with other elements in set of alternatives; the contrast seems to be between situations. For English speakers, the following example is also striking, in that it is clear that in English the peak of the B accent is on the verb *came*, while in Japanese *wa* attaches to the quantified subject (locating the peak of the B accent on the corresponding element in the English sentence yields a highly infelicitous utterance), but it seems that a similar effect is achieved in the two languages:

- 47. A: How was the party?
 - B: Minna wa kita kedo tumaranakatta everyone WA came but boring-PST *Everyone came but it was boring*
 - C: Everyone $[_{B}$ came], but it was boring.
 - C': # [_B Everyone] came, but it was boring.

This phenomenon remains to be properly described and explained. But one could entertain the speculation that noncontrastive topics (always, recall, constituents that are in the highest position in the sentential tree) are simply contrastive topics where contrast has been able to project to a high enough position that it outscopes practically everything, and contrasts only one proposition with another (this is perhaps similar to the proposal in Shibatani 1990). That is to say, although Fiengo and McClure, for example, start from noncontrastive *wa* and attempt to derive contrastive readings from it (by some kind of implicature), it is possible to

attempt a move in the other direction—and given the appeal of recent work on contrastive topics in English and German there is a strong attraction in attempting to reduce all cases to the contrastive one. Whether or not this reduction can be achieved is a question that remains open at present.

4. Implications

In recent years the study of information structure, once perceived as clearly the domain of a separate pragmatic module of language, has moved more and more into the mainstream of semantics. This has clearly been the case for the concepts of topic and focus. In order to make serious progress on the questions that arise around these concepts (including the question of what they might tell us about the boundaries of semantics and pragmatics), it is evident that there should be some degree of consensus as to how they are defined. Particularly in the case of topic, it seems clear that movement in this direction has been hampered by the fact that in English there is very little straightforward evidence for the utility of the concept at all. In Japanese, on the other hand, it is extremely common for syntacticians at least to refer to wa as a "topic marker" without feeling the need for further explication. One strategy that research on Japanese makes available, therefore, is to consider the distribution and interpretation of wa phrases in the light of the predictions of available theories of topic, in order to determine whether the data from Japanese constitute a reason for choosing one over another (or rejecting all in favour of a new approach). The discussion in this chapter has attempted to indicate the implications of various aspects of the Japanese data in this light. It is clear that there is considerable scope for further research; in particular a formal treatment of the relation between contrastive and noncontrastive wa is badly needed, both for a satisfactory description of Japanese but more generally for the light that it might shed on the concept of topic writ large.

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