Particle ellipsis and focus projection in Japanese

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ABSTRACT:
The nominative case particle *ga* in Japanese cannot be dropped when the expression it marks is focused, i.e., when the expression it marks is interpreted as contrasting with some other object(s) of the same type. This simple constraint, in conjunction with a theory of the interaction between focus and intonation, automatically accounts for several facts about *ga*-ellipsis that have hitherto been subjected to various misinterpretations, including (i) the fact that *ga* appears to be harder to drop when it marks an unergative subject than when it marks an unaccusative subject and (ii) the fact that *ga* is harder to drop when it is not adjacent to a predicate. The results of two questionnaire surveys, in which I obtained acceptability judgments from a relatively large number of speakers, will be shown to support the proposed account.

1 Introduction

The nominative case particle *ga* in Japanese is omissible under certain circumstances, as in the following sentence.

(1) [Ame ga/∅ futtara]   dô   shiyô   ka.
    [rain NOM fall-PROV] how do-PRESUMP Q
    'What shall we do if it rains?' <18, 11, 0, 0>

The 4-tuple immediately following the gloss in (1) (as well as those in (2), (15), (31), (32), (35), (36) below) is based on the questionnaire survey that I did at Ritsumeikan Daigaku in 1994, in which I obtained acceptability judgments from 29 college students who, as far as I am aware, knew nothing about linguistics. The notation $<m, n, o, p>$ means that, of the $m + n + o + p$ speakers asked, m people said the example is perfect even when *ga* is elided, n people said it becomes slightly unnatural when *ga* is elided, o people said it becomes considerably unnatural when *ga* is elided, and p people said it becomes incomprehensible

when *ga* is elided. In the case of example (1), the figures show that most speakers found the *ga*-ellipsis in this example perfectly acceptable. Particle ellipsis is not always allowed, however, as shown by the following example.

(2) (Nakuna yo.) Kimi ni wa rainen ga/?*∅ aru ja
(Don't cry I tell you) you DAT TOP next year NOM be-PRES INST.TOP

nai ka.
NEG-PRES Q

'(Stop crying.) You've got next year, haven't you?' <3, 7, 17, 2>

The figures indicate that most speakers felt that the sentence becomes considerably unnatural when the nominative case particle is elided.

The goal of this article is to determine exactly under what circumstances the nominative case particle is allowed to be absent. In section 2, I will enumerate some phenomena which superficially appear to be relevant to this investigation but which I regard as irrelevant and hence will either disregard or try to circumvent. In section 3, I will examine two previous analyses of *ga*-ellipsis, with a view to enumerating some fundamental facts about *ga*-ellipsis that are to be accounted for. In section 4, I will argue that *ga*-ellipsis is subject to what I will call the Antifocus Constraint, a constraint which prohibits ellipsis of a nominative case particle when an expression immediately preceding that particle is focused. Then, in section 5, I will argue that the Antifocus Constraint alone captures all the relevant facts about *ga*-ellipsis that have remained unaccounted for in the literature.

2 Some caveats

In this section, I will enumerate phenomena which superficially appear to be relevant but which I regard as irrelevant and hence will either disregard or try to circumvent in this article.

2.1 *Bare topics*

As shown in (3), a topic phrase, which is usually accompanied by the particle *wa* in written Japanese, can appear without any particle in spoken Japanese.

(3) Kono hôchô wa/∅, ano hito ga kinô kami o
this cooking knife TOP that person NOM yesterday paper ACC

kitteta yo.
cut-GER-be.PAST I tell you

'Speaking of that cooking knife, that person was cutting paper with it yesterday.'

Although (3) cannot be analyzed as an instance of *ga*-ellipsis, there are cases where it is impossible to tell whether a given NP that is not accompanied by any particle is a bare topic phrase of the kind we see here or a *ga*-marked NP from which the nominative case particle has been deleted. Some authors, including Niwa (1989), have gone so far as to suggest that a sentence like (1) and a sentence like (3) should be seen as two instances of one and the same construction type.

In this article, I will focus my attention to sentences that cannot be analyzed as involving bare topics of the type we see in (3), and simply dodge the issue of whether the bare topic construction and the *ga*-ellipsis construction should be regarded as the same construction in some sense. This means that I will try to use exclusively clauses in which no topic phrases are allowed, such as the bracketed clause in (4) below.

(4) Dôshite na   no   kana, [kono hôchô   de/*wa/*∅ ano
    why   COP.ATTR NML I wonder [this cooking knife INST/TOP/∅ that
    hito ga kami o kitteta]   no.
    person NOM paper ACC cut-GER-be.PAST] NML
    'I wonder why that person was cutting paper with this cooking knife.'

2.2 *Quantifier floating*

In the following sentence, the NP *dareka* 'somebody' is not accompanied by any particle and the sentence could be analyzed as involving *ga*-ellipsis.

(5) Dareka   tabako   sutta   desho.
    somebody cigarette smoke-PAST am I right
    'Somebody smoked a cigarette, right?'

Such an analysis, however, is not the only possible analysis of this sentence. It could be the case that the real grammatical subject of this sentence is a zero pronoun referring to the people being addressed and that the NP *dareka* here is a floated quantifier semantically linked to that zero pronoun. The following examples show that the NP *dareka* can indeed function as a floated quantifier.

(6) a. [Koko ni ita   hito   ga] dareka   tabako   sutta
       [here DAT be-PAST person NOM] somebody cigarette smoke-PAST
       desho.
       am I right
       'Somebody who was here smoked tabacco, right?'

    b. Dareka   [koko ni ita   hito   ga] tabako   sutta
       somebody [here DAT be-PAST person NOM] cigarette smoke-PAST
       desho.
       am I right

In this article, I will use examples where the relevant NPs cannot be interpreted as floated quantifiers.

2.3   *Literary relative clauses*

Although particle ellipsis is usually impossible in written Japanese, there are exceptional cases, such as the following relative clauses.

(7) [yakudô-kan ga/no/∅   afureru]   mei-engi
     [verve   NOM/GEN/∅ brim with-PRES] great performance
     'great performance that brims with verve'

(8) [chihô-shoku   ga/no/∅   yutaka   na]
     [local character   NOM/GEN/∅   rich   COP.ATTR]
     dentô-geinô
     traditional performing arts
     'traditional performing arts that is rich with local character'

Constructions of this type, which are probably remnants of earlier historical stages of the language, will be ignored in what follows.

2.4   *Derogatory use*

As pointed out in Yatabe (1996), *ga*-ellipsis is not allowed in a sentence like the following.

(9) Sakkâ ga/*∅ nan   dai.
     soccer NOM   what COP.PRES-EMPH
     'I don't give a damn about soccer.' ('Soccer is what?' (lit.))

It seems that the nominative case particle on an NP cannot be elided when the NP is embedded in a sentence frame that idiomatically expresses contempt toward what is denoted by the subject NP. I believe this is an idiosyncratic property of idiomatic sentence frames of this sort in general, and will not try to come up with any deeper explanation for it.

2.5   *Dialogic ellipsis*

It has been pointed out by Tsutsui (1983) that there are some differences regarding *ga*-ellipsis between first-person or second-person nominative subjects of matrix clauses and other kinds of nominative subjects. As shown by the following examples, first-person and second-person subjects of matrix clauses seem to allow *ga*-ellipsis more readily than other types of nominative subjects.

4

(10) a. A, are wa, boku ga/∅ nomimashita.
       ah that TOP I   NOM drink-POL.PAST

    'Ah, I drank that up.' (<15, 5, 2, 0>, according to Tsutsui (1983))

    b. A, are wa, Tarô ga/?*∅ nomimashita.
       ah that TOP Tarô NOM   drink-POL.PAST

    'Ah, Tarô drank that up.' (<0, 2, 5, 15>, according to Tsutsui)

(11) a. Ano bîru wa anata ga/∅ nonda   n   deshô.
       that beer TOP you   NOM drink-PAST NML am I right

    '*You* drank that beer, right?' (<13, 5, 4, 0>, according to Tsutsui)

    b. Ano bîru wa Hanako ga/?*∅ nonda   n   deshô.
       that beer TOP Hanako NOM   drink-PAST NML am I right

    '*Hanako* drank that beer, right?' (<0, 5, 10, 7>, according to Tsutsui)

(12) a. [Anata ga/??∅ kaita   no   wa] kore desu   ka.
       [you   NOM   write-PAST NML TOP] this COP.PRES Q

    'Is this what you wrote?' (<3, 5, 8, 6>, according to Tsutsui)

    b. [Hanako ga/?*∅ kaita   no   wa] kore desu   ka.
       [Hanako NOM   write-PAST NML TOP] this COP.PRES Q

    'Is this what Hanako wrote?' (<0, 2, 8, 12>, according to Tsutsui)

It seems reasonable to regard the type of *ga*-ellipsis responsible for examples like
(10a) and (11a) as something distinct from the type of *ga*-ellipsis responsible
for examples like (1) (see Yatabe (1996)); I will focus my attention to the latter
in this article.

3   Previous analyses

In this section, I will review and criticize Tsutsui's (1984) and Tateishi's (1989)
analyses of *ga*-ellipsis, with a view to enumerating some fundamental facts about
ga-ellipsis that are to be accounted for.

3.1   *Tsutsui (1984)*

Tsutsui's (1984, chapters 3–4) theory of *ga*-ellipsis is composed of four conditions
pertaining to particle ellipsis in general (i.e. not only *ga*-ellipsis but also *o*-ellipsis
etc.) and two conditions partaining specifically to *ga*-ellipsis.

    Let me first examine Tsutsui's four conditions on particle ellipsis in general,
which are stated as follows.

(13) a. "Case Particle Ellipsis Rule 1 (CPER1)"
The lower the formality level is, the more natural the ellipsis of case
particles is.

b. "Case Particle Ellipsis Rule 2 (CPER2)"
The ellipsis of the case particles (CP) of an NP-CP is unnatural if the
NP-CP conveys the idea of exclusivity.

c. "Case Particle Ellipsis Rule 3 (CPER3)"
The ellipsis of a case particle is unnatural if it is in a generic sentence.

d. "Case Particle Ellipsis Rule 4 (CPER4)"
The ellipsis of the case particle marking a monosyllabic NP is less
natural than that of the case particle marking a multisyllabic NP.

I am convinced by Tsutsui's arguments that CPER1 and CPER2 are on the right
track. For instance *ga*-ellipsis in the following sentence, which is stylistically
very formal, is unacceptable, as predicted by CPER1.

(14) Kore ga/?* ochita   no   de   aru.
this NOM drop-PAST NML INST be-PRES
'It is that this thing fell.'

Ga-ellipsis in the following sentence, in which the *ga*-marked NP is given an "ex-
clusive" interpretation, or an exhaustive-listing interpretation, is unacceptable,
as predicted by CPER2.

(15) [Atashi ga/?*∅ warui]   tte yû   n   desu   ka?
[I   NOM   be bad-PRES] COMP say-PRES NML COP.PRES Q
'Are you suggesting that *I* am to blame?' <0, 5, 12, 12>

CPER4 is also essentially correct. A nominative case particle cannot be elided
when it marks an unaccented monosyllabic noun, although it *can* be elided
when it marks an accented monosyllabic noun. This is shown in the following
examples. (I owe the example in (16a) to Yukiko Morimoto. *Ka* is unaccented,
whereas *me* is accented.)

(16) a. Ka   ga/?*∅ tonderu.
mosquito NOM   be flying-PRES
'A mosquito is flying around.'

b. Me ga/∅ itai.
eye NOM hurt-PRES
'My eyes hurt.'

CPER3 is, however, questionable. Generic sentences that allow *ga*-ellipsis are
not difficult to find. The following is one such sentence.

(17) Zô wa karada ga/∅ ôkii kara nâ.
  elephant TOP body NOM big-PRES because I must tell you
  'Elephants have big bodies, I must tell you.'

Thus I submit that we discard CPER3 and slightly modify CPER4, while retaining CPER1 and CPER2. (I will argue in section 4, however, that CPER2 is too narrow if not incorrect and thus needs to be generalized somewhat.)

Let me next examine Tsutsui's (1984) two conditions pertaining specifically to *ga*-ellipsis, which are stated as follows.

(18) a. "Ga Ellipsis Rule 1 (GER1)"
    The ellipsis of the *ga* of an NP-*ga* is natural in informal speech if the NP-*ga* is preceded by the subject of the sentence and immediately followed by the predicate.

  b. "Ga Ellipsis Rule 2 (GER2)"
    The ellipsis of *ga* in a sentence is natural if the sentence satisfies one of the following conditions:

    (i) the speaker believes the sentence carries expected information.
    (ii) the speaker believes the sentence carries shared information.
    (iii) the speaker expects the hearer to take some action in response to the sentence.

The intended interpretation of these two rules, although never stated, seems to be that *ga* can be dropped only if either GER1 or GER2 applies. As it turns out, GER1 is partially correct while GER2 is fundamentally incorrect.

Two distinct claims are embodied in GER1; the first half of GER1 ("preceded by the subject of the sentence") claims that *ga* can be elided only when it marks a non-subject, and the second half of GER1 ("immediately followed by the predicate") claims that *ga*-ellipsis takes place only in positions immediately preceding a predicate. In my view, the first half is incorrect, while the second half is correct as a statement of a tendency. The first half of GER1, which is a recapitulation of Kuno's (1973) theory of *ga*-ellipsis, is likely to be off the mark; we have already seen several examples, such as (16b), which appear to refute it. On the other hand, the second half of GER1 correctly captures the following contrast.

(19) (from Tsutsui (1983))

  a. Kimi ate ni gakkô e tegami ga/∅ todoita yo.
    you address DAT school LOC letter NOM arrive-PAST I tell you
    'A letter has arrived at school for you.' (<12, 5, 3, 2> according to Tsutsui)

b. Kimi ate   ni   tegami ga/?∅ gakkô e   todoita   yo.
you address DAT letter NOM school LOC arrive-PAST I tell you

(<1, 8, 8, 5> according to Tsutsui)

Turning now to GER2, it is my opinion that the "observations" that GER2 is based on are illusory. For instance, Tsutsui (op. cit., 130) claims that the following sentence is acceptable only if the speaker expects the hearer to take some action (say, running into a house) in response to it.

(20) Ame ∅ futte   kimashita   yo.
    rain   fall-GER come-POL.PAST I tell you
    'It's started raining.'

According to my intuitions, however, there is nothing wrong with uttering this sentence without expecting the hearer to do anything. The fact that the following variant of (20) is acceptable corroborates my view.

(21) [Ame ∅ furanakattara] iku   yo.
    [rain   fall-NEG-COND] go-PRES I tell you
    'I'll go if it doesn't rain.'

It is relatively easy to imagine a situation in which the speaker utters (21) without expecting the hearer to do anything in response to it. Furthermore, neither (21) as a whole nor the bracketed clause in it carries what is believed by the speaker to be expected information or shared information (where "expected information" is "information that expresses a proposition which the hearer is expecting to hear" (op. cit., 119) and "shared information" is "propositional information which is shared by the speaker and the hearer not as common knowledge but as personally shared knowledge" (op. cit., 122)). Thus (21), which obviously does not satisfy the condition stated in GER1, does not satisfy the conditions stated in GER2 either, and is hence incorrectly predicted to be unacceptable, supposing that the intended interpretation of Tsutsui's analysis is that *ga* can be dropped only if either GER1 or GER2 applies.

To summarize this subsection, I have argued (i) that CPER1, CPER2, and the second half of GER1 are on the right track, (ii) that CPER4 becomes correct after a slight modification, and (iii) that CPER3, the first half of GER1, and GER2 are incorrect.

3.2 *Tateishi (1989)*

Next, let us examine Tateishi's (1989) theory of *ga*-ellipsis, which is presented as part of an exploration of Japanese clause structure. The gist of Tateishi's claim is that *ga* cannot be dropped if it marks either the subject of an unergative predicate (which is, roughly speaking, a predicate whose logical subject is either

an agent or an experiencer)[1] or the subject of an individual-level predicate (which is a predicate expressing a more or less permanent property, as opposed to a transient property). In his theory, this claim amounts to saying that *ga*-ellipsis is allowed only inside V′, as the subject of an unergative predicate and the subject of an individual-level predicate are assumed to be realized outside V′ whereas the subject of an unaccusative predicate and the subject of a stage-level predicate are assumed to be realized inside V′.

Let me first examine whether it is really impossible to drop *ga* when it marks the subject of an unergative predicate. It turns out that counterexamples to this claim can be found in the previous literature; sentence (22), in which the subject of the verb *happyô suru* 'make a presentation' (or *suru* 'do' alone, if *happyô* is not to be regarded as part of the verb) appears without *ga*, is one such example.

(22) (from Niwa (1989))

Kondo	Gengogakkai		de	Yamada san	ga/∅
shortly	Linguistic Society meeting		INST	Yamada san	NOM

happyô suru		n	datte.
make a presentation-PRES		NML	they say

'They say that Yamada san is going to make a presentation at the next Linguistic Society meeting.'

The claim that it is impossible to drop *ga* when it marks the subject of an individual-level predicate is also incorrect, as shown by the following example.

(23) a.

Komaru	yonâ,	[mado	ga/∅	chîsakattara].
have a problem-PRES	am I right	[window	NOM	small-PROV]

'We'll have a problem, won't we—if the window is small.'

  b.

Komaru	yonâ,	[sono	gakusei	ga/∅	nihonjin
have a problem-PRES	am I right	[that	student	NOM	Japanese

dattara].
COP.PROV]

'We'll have a problem, won't we—if that student is a Japanese.'

(23a) and (23b) both involve ellipsis of *ga* that marks the subject of an individual-level predicate, and they are both acceptable, in contradiction to Tateishi's claim. The following pair of sentences constitute a minimal pair, one involving a stage-level predicate *ôi* 'be present in great numbers' and the other involving an individual-level predicate *yasashii* 'be kind'; they both turn out to be unacceptable, again in contradiction to Tateishi's claim that there is a contrast between the two types of verb. (The 4-tuples following these two examples represent the acceptability judgments by the four linguists I consulted.)

(24) a. Tôkyô e   itte   saisho ni kizuita   no wa, [furôsha
       Tokyo LOC go-GER first   DAT notice-PAST NML TOP [homeless person
       ga/?*∅ ôi]   koto.
       NOM   be present in great numbers-PRES] NML
       'The first thing I noticed when I got to Tokyo was that homeless people
       are present in great numbers.' <0, 1, 3, 0>

    b. Tôkyô e   itte   saisho ni kizuita   no wa, [furôsha
       Tokyo LOC go-GER first   DAT notice-PAST NML TOP [homeless person
       ga/?*∅ yasashii]   koto.
       NOM   be kind-PRES] NML
       'The first thing I noticed when I got to Tokyo was that homeless people
       are kind.' <0, 0, 4, 0>

Tateishi's claim that *ga* cannot be dropped when it marks the subject of an
individual-level predicate is based on the following one example.

(25) Onna   ga/?*∅ utsukushii.
     woman NOM   beautiful-PRES
     'Women are beautiful.'

This sentence is expected to be unacceptable for independent reasons, and there-
fore its unacceptability does not justify Tateishi's view. The subject NP in
this sentence is assigned a so-called exhaustive-listing interpretation, because
the subject of an individual-level predicate is obligatorily given an exhaustive-
listing interpretation when it heads a matrix clause (see Kuno (1973)); in other
words, this sentence means "It is women that are beautiful," not simply "Women
are beautiful." Thus, given Tsutsui's CPER2, the nominative case particle in
this example is expected not to be omissible, regardless of whether there is a
constraint that prevents a nominative case particle marking the subject of an
individual-level predicate from being dropped.

    There *are* some examples, however, that suggest that the first of his claims is
not off the mark. Consider the following examples, which constitute a minimal
pair, (26) having a verb *detekita*, which can be interpreted as an unaccusative
verb and (27) having a verb *donatta*, which can only be interpreted as an unerga-
tive verb. The verb *donatta* 'swear-PAST' can be said to be unergative because
one cannot swear unless he or she intends to swear; on the other hand, it can
be said that the verb *detekita* 'come out-PAST' can be interpreted as an unac-
cusative verb because one *can* come out of a building, etc. even if one does not
intend to, for instance if he or she is on a moving sidewalk.

(26) — Dô shita   no?
       how do-PAST NML
       'What happened?'

— Ima,   hen   na   hito   ga/?∅ detekita   no.
just now strange COP.ATTR person NOM   come out-PAST NML

'A strange person came out just now.'

<17, 34, 22, 8> (<11, 29, 21, 6>+<6, 5, 1, 2>)

(27) — Dô shita   no?
how do-PAST NML

'What happened?'

— Ima,   hen   na   hito   ga/?*∅ donatta   no.
just now strange COP.ATTR person NOM   swear-PAST NML

'A strange person swore just now.'

<5, 9, 39, 28> (<5, 6, 32, 24>+<0, 3, 7, 4>)

The 4-tuples following the glosses in examples (26) and (27) (and (37a), (37b), and (38) below) are the results of the questionnaire survey that I did in 1997, in which I obtained acceptability judgments from 67 non-linguists (students at Numazu Kôgyô Kôtô Senmon Gakkô)[2] and 14 linguists (graduate students at Tôkyô Daigaku). The first 4-tuple represents the overall results, whereas the two parenthesized 4-tuples show the non-linguists' responses and the linguists' responses respectively. In the 4-tuples based on this 1997 survey, the fourth number represents the number of people who felt that the sentence becomes "extremely unnatural" when the nominative case particle is elided; as I stated earlier, in the 4-tuples based on my 1994 survey, the fourth number represents the number of people who felt that the sentence becomes "incomprehensible" when the nominative case particle is elided.

My interpretation of the facts shown in (26) and (27) is that *ga*-ellipsis is acceptable in the second sentence of (26), but not in the second sentence of (27). If this interpretation is right, then it means that there *are* cases where an unaccusative predicate appears to allow *ga*-ellipsis more readily than an unergative predicate. The fact that the number of speakers who found the particle ellipsis in the second sentence in (26) slightly unnatural was greater than the number of speakers who found it perfect is something of an embarrassment, but I wish to note the following three observations as support for my interpretation. First, the majority of respondents felt that the particle ellipsis in the second sentence in (26) is either perfect or only slightly unnatural. Second, the number of linguists who found the ellipsis perfect was greater than the number of linguists who found it slightly unnatural. And third, a sentence involving *ga*-ellipsis is always judged to be slightly unnatural by a significant percentage of speakers even when it is judged to be perfect by the majority of speakers (see (1), (36), etc.).

3.3 *Summary*

To summarize, we have reviewed two previous analyses of *ga*-ellipsis, and have confirmed the following observations.

(28) a. The particle cannot be dropped in a formal register. (Tsutsui's CPER1)

  b. The particle cannot be dropped when it marks an NP that receives an exhaustive-listing interpretation. (Tsutsui's CPER2)

  c. The particle cannot be dropped when it marks an unaccented mono-syllabic noun. (Tsutsui's CPER4, modified)

  d. The particle is harder to drop when the particle is not adjacent to a predicate. (The second half of Tsutsui's GER1)

  e. The particle is harder to drop when it marks an agentive NP. (Tateishi and Kageyama)

I will have nothing more to say about (28a) and (28c). (28b), (28d), and (28e) will be the central concern of the remainder of this article. I will argue that these three facts are consequences of a single constraint on *ga*-ellipsis, which I will call the Antifocus Constraint.

4   The Antifocus Constraint

In this section, I will argue that *ga*-ellipsis is subject to the following constraint, which I would like to see as a generalized and refined variant of Tsutsui's CPER2.

(29) The Antifocus Constraint:
  A nominative case particle cannot be dropped when a string immediately preceding it is focused.

In stating the Antifocus Constraint, I am using the term *focus* in roughly the same way that Rooth (1992) does (see 5.2 below for a difference between Rooth's conception of focus and mine). Simply put, an expression is said to be *focused* when the expression is understood as contrasting with some other object(s) of the same type. The objects that the expression is interpreted as contrasting with are usually supplied by the context. Consider the example shown in (30).

(30) A, [$_{[+F]}$ Tarô] ga soba o tabeta!
  'Wow, *Tarô* ate the noodles!'

The subject NP *Tarô* is focused in this example; in other words, the expression *Tarô* is understood as contrasting with some other object(s) of the same type.

The sentence alone does not make it clear what it is that Tarô is being contrasted with. Tarô might be understood as contrasting with Hanako, yielding a reading which would be felicitous if the speaker had been expecting Hanako to eat noodles and was surprised to see Tarô eating them. Tarô might be understood as contrasting with 'nobody', yielding a reading which would be felicitous if the speaker had been expecting nobody to eat the noodles and was surprised to see Tarô eating them.

The Antifocus Constraint captures everything that Tsutsui's CPER2 captures, because an exhaustive-listing interpretation is a type of contrastive interpretation. In general, an exhaustive-listing interpretation is a contrastive interpretation in which the expression being focused is understood as contrasting with everything else. For instance, in (15), the subject NP, which refers to the speaker, is understood as contrasting with everyone other than the speaker, thus giving rise to an exhaustive-listing interpretation. The contrast between (31) and (32) below is likewise captured by the Antifocus Constraint; in example (32), the noun phrase *oyu* 'hot water' is understood as contrasting with everything other than hot water.

(31) [Koko kara oyu   ga/∅ deru]   no   shitteta?
     [here from hot water NOM come out-PRES] NML know-GER-be.PAST
     'Did you know that hot water comes out of this?' <19, 9, 1, 0>

(32) Koko kara deru   no   wa   mizu jaa   nai
     here from come out-PRES NML TOP water INST.TOP   be.NEG-PRES
     yo.   Koko kara wa   [oyu   ga/?*∅   deru]   n
     I tell you here from TOP [hot water NOM   come out-PRES] NML
     da   yo.
     COP.PRES   I tell you
     'What comes out of this is not cold water. *Hot water* comes out of this.'
     <1, 8, 16, 4>

The Antifocus Constraint is not equivalent to Tsutsui's CPER2. There are cases that are accounted for by the Antifocus Constraint but not by CPER2. Consider the following example.

(33) Tarô dake ga   kita   n   jâ   nai   yo.   [Tarô
     Tarô only NOM come-PAST NML INST.TOP be.NEG-PRES I tell you [Tarô
     to   Jirô to   Hanako ga/?*∅] kita   n   da   yo.
     and Jirô and Hanako NOM]   come-PAST NML COP.PRES I tell you
     'It's not the case that only Tarô came. Tarô, Jirô, and Hanako all came.'

In (33), the subject NP of the second sentence, *Tarô to Jirô to Hanako* 'Tarô, Jirô, and Hanako', is understood as contrasting with the subject NP of the first sentence, *Tarô dake* 'only Tarô', thus creating a situation in which *ga*-ellipsis is

prohibited by the Antifocus Constraint. Note that CPER2 does not prohibit *ga*-ellipsis in this example. What the second sentence in (33) asserts is not that no one other than the three people mentioned came; the sentence can be true even in a situation where more than three people came to the contextually specified place. What the second sentence in (33) does assert is that, contrary to the addressee's belief, Jirô and Hanako, as well as Tarô, came to the contextually specified place. (34) is another example that can be captured by the Antifocus Constraint but not by CPER2.

(34) (from Tsutsui (1983))
    Boku wa [sake no   hô   ga/?*∅] ii   desu.
    I   TOP [sake GEN side NOM]   good-PRES COP.PRES
    'I prefer sake.'

In (34), sake is being contrasted only with some other, contextually specified drink; the sentence does not assert that the speaker dislikes every drink other than sake. Thus the low acceptability of *ga*-ellipsis in this example is not accounted for by CPER2, although it is accounted for by the Antifocus Constraint. The following contrast is also explained by the Antifocus Constraint, but not by CPER2.

(35) Konna tokoro kara nani ga/?*∅ detekuru   kayo.
    such   place   from what NOM   come out-PRES let me ask you
    'Let me ask you, what could possibly come out of something like this?'
    <1, 2, 9, 17>

(36) Nani ga/∅ detekita?
    what NOM come out-PAST
    'What has come out of it?' <14, 10, 4, 1>

(36) is a garden-variety *wh*-question, whereas (35) is a rhetorical question and in effect asserts that nothing could possibly come out of 'this'. There is no sense in which the nominative NP in (35) can be said to receive an exhaustive-listing interpretation, and thus the low acceptability of particle ellipsis in this example cannot be attributed to CPER2. The Antifocus Constraint, on the other hand, does capture the contrast. (36) does not violate the Antifocus Constraint, because the nominative NP in this example is not being contasted with anything. On the other hand, the subject NP in (35) *is* being contrasted; in uttering this rhetorical question, the speaker is (i) expressing his or her belief that nothing could possibly come out of 'this', (ii) noting the addressee's belief that something (as opposed to 'nothing') comes out of 'this', and (iii) challenging the addressee to tell him or her for which x it is the case that x (as opposed to 'nothing') comes out of 'this'. If this semantic analysis is correct, then the subject NP in (35) is being contrasted with 'nothing', and is expected not to

allow *ga*-ellipsis. The impossibility of particle ellipsis in (2) receives a similar explanation in terms of the Antifocus Constraint. In uttering (2), the speaker is (i) noting the addressee's belief that he or she has nothing left, and (ii) asserting that the addressee actually has next year, as opposed to 'nothing'. If this semantic analysis is correct, the nominative NP in this example is by definition focused, and expected not to allow *ga*-ellipsis. Again, it is not possible to account for this example in terms of CPER2, as the speaker of this sentence is obviously not saying that the addressee has nothing but next year.

There is one respect in which the scope of the Antifocus Constraint is narrower than that of CPER2. While CPER2 is intended to apply to all types of particle ellipsis, the Antifocus Constraint is intended to apply only to ellipsis of *ga*. This restriction is motivated by examples like the following.

(37) a. Igirisu-jin ga   yakyû   o/∅ yaru   no, hajimete   mita.
     Brit   NOM baseball ACC do-PRES NML for the first time see-PAST
     'This is the first time I see Brits play baseball.'
     <69, 8, 3, 1> (<56, 7, 3, 1>+<13, 1, 0, 0>)

   b. Kuriketto o   yaru   no wa Amerika-jin jâ   nakute
      cricket   ACC do-PRES NML TOP American   INST.TOP be.NEG-GER

      Igirisu-jin da   yo.   Amerika-jin wa [yakyû   o/?∅
      Brit   COP.PRES I tell you American   TOP [baseball ACC

      yaru]   n   da   yo.
      do-PRES] NML COP.PRES I tell you

      'It is not Americans but Brits that play cricket. Americans play *baseball*.'
      <25, 37, 13, 6> (<22, 31, 11, 3>+<3, 6, 2, 3>)

The noun phrase *yakyû* is focused in (37b), but ellipsis of *o* is acceptable in there, as it is in (37a), where that same noun phrase appears unfocused. The result of the questionnaire survey indicates that ellipsis of *o* is slightly less acceptable in (37b) than in (37a), but the majority of the respondents felt that the ellipsis is either perfect or only slightly unnatural.

5 Focus and intonation

In this section, I will first argue in 5.1 that the fact noted in (28e) is a consequence of the Antifocus Constraint.[3] Then, after precisely formulating the proposed theory in 5.2, I will argue in 5.3 that the fact noted in (28d) is also a consequence of the Antifocus Constraint.

5.1 The contrast between unergatives and unaccusatives

I submit that the second sentence in (26), which is headed by an unaccusative verb, constitutes a single focus, whereas the second sentence in (27), which is headed by an unergative verb, does not constitute a single focus but instead is composed of two foci, a focused subject and a focused verb. If the second sentence in (26) constitutes a single focus, that is, if the sentence as a whole is focused but neither the subject nor the verb is individually focused, then the sentence does not violate the Antifocus Constraint. On the other hand, if the second sentence in (27) is composed of two foci, that is, if the subject and the verb in this sentence are both individually focused, then the sentence does violate the Antifocus Constraint. Given the definition of focus that I stated in the previous section, what I am suggesting here amounts to saying that the second sentence in (26) contrasts the event of a strange person coming out with some other type of event (as in "<a strange person came out> (as opposed to <nothing was happening> etc.") and that the second sentence in (27) contrasts a strange person with some other type of person and the action of swearing with some other type of action (as in "<a strange person> (as opposed to <a high school student> etc.) <swore> (as opposed to <walked away> etc.)").

This line of analysis is supported by the following two observations.

First, when put in a context where the subject NP clearly does not need to be focused, a sentence like the second sentence in (27), which I will henceforth refer to as an unergative sentence, allows *ga*-ellipsis as readily as a sentence like the second sentence in (26), which I will henceforth refer to as an unaccusative sentence. Consider the following example, in which the same unergative verb used in the second sentence of (27) is used. Notice that the noun phrase *ano hito* here cannot be interpreted as a bare topic even when it is not accompanied by the nominative case particle; bare topics are not allowed in this environment, as shown in (4) above.

(38) Dôshite na   no kanâ,   [ano hito   ga/?∅ donatta]   no.
      why   COP.ATTR NML I wonder [that person NOM   swear-PAST] NML
      'I wonder why it was that that person swore.'
      <18, 26, 21, 16> (<15, 19, 18, 15>+<3, 7, 3, 1>)

The result of the questionnaire survey, shown after the gloss, indicates that *ga*-ellipsis in this sentence is roughly as acceptable as that in the second sentence of (26), which is headed by an unaccusative verb. This is an expected result, in the proposed account. When a speaker utters the indefinite subject NP (*hen na hito* 'a strange person') of the second sentence of (27), he or she is singling out a specific unfamiliar individual out of the set of individuals that he or she could have chosen to talk about, inevitably contrasting that individual with the other individuals that he or she could have singled out instead. On the other hand, when a speaker utters the sentence in (38), he or she is not necessarily singling out the individual referred to by the subject NP *ano hito* 'that person'. The

individual referred to by the definite NP could have already been singled out when the sentence is uttered; the speaker's attention could have already been focused on this particular individual, in which case the speaker would see no need to contrast that individual with any other individual.[4] Thus the sentence in (38) is correctly expected to be acceptable, on the assumption that what rules out the second sentence in (27) is the Antifocus Constraint.

The second observation that supports the proposed analysis is that an unergative sentence and an unaccusative sentence have different prosodic patterns, which arguably reflect the different patterns of focus distribution in the two types of sentence. When an unaccusative sentence is used as a reply to a question such as "What happened?", only the subject receives prosodic prominence; on the other hand, when an unergative sentence is used as a reply to such a question, both the subject and the verb receive prosodic prominence. This is illustrated by the following examples, in which (39b) and (39c) are both intended to be answers to the question in (39a). As indicated by capitalization, only the subject is prosodically prominent in (39b), whereas both the subject and the predicate are prosodically prominent in (39c).

(39) a. DÔ shita   n   desu   ka?
        how do-PAST NML COP.PRES Q
        'What happened?'

    b. HEN na hito ga/∅ detekita n desu. 'A strange person came out.'

    c. HEN na hito ga/?*∅ DONATTA n desu. 'A strange person swore.'

Let me be clearer about what I mean by the term *prosodically prominent*. I say that an expression in a Japanese sentence is *prosodically prominent* (or it *receives prosodic prominence*) when (i) either the initial mora of the expression has audibly undergone Initial Lowering (i.e., it is pronounced audibly lower in pitch than the second mora)[5] or the initial mora of the expression is accented[6] and hence incapable of undergoing Initial Lowering and (ii) none of the high tones associated with the expression is downstepped (i.e., pronounced lower in pitch than the preceding high tone)[7] or otherwise subdued. This definition is admittedly somewhat vague, but it determines reasonably clearly which words in a given sentence are prosodically prominent, as long as we are dealing with relatively short sentences such as (39b) and (39c). According to this definition, (39b) has only one prosodically prominent word while (39c) has two, as indicated. The verb in (39b) is not prosodically prominent; the high tone associated with the initial mora of the verb in (39b), *detekita*, is downstepped, that is, pronounced audibly lower in pitch than the preceding high tone, which is realized on the subject NP. On the other hand, the verb in (39c) is prosodically prominent; the initial mora of the verb in (39c), *donatta*, audibly undergoes Initial Lowering, and the high tone associated with the second mora of the verb is not downstepped and is pronounced as high in pitch as the preceding high tone,

which is realized on the subject NP. This contrast can be taken to indicate that the sentence as a whole is being focused as a single unit in (39b) while the subject and the verb are both individually being focused in (39c); (39b) has only one prosodically prominent expression presumably because there is only one focus in the sentence, and (39c) has two prosodically prominent expressions presumably because there are two foci in the sentence.

Am I justified in assuming that there is a one-to-one correspondence between foci and prosodic prominences? It is my contention that I am. Observe first that an expression that is clearly focused indeed receives prosodic prominence in the sense defined above and that an expression that is clearly not focused indeed does not receive prosodic prominence.

(40) a. —DONNA hito ga detekita n desu ka? 'What kind of person came out?'
          —HEN na hito ga detekita n desu. 'A *strange person* came out.'

      b. —DONNA hito ga donatta n desu ka? 'What kind of person swore?'
          —HEN na hito ga donatta n desu. 'A *strange person* swore.'

      c. —Ano hito ga NANI o shita n desu ka? 'What did that person do?'
          —Ano hito ga DETEKITA n desu. 'That person *came out*.'

      d. —Ano hito ga NANI o shita n desu ka? 'What did that person do?'
          —Ano hito ga DONATTA n desu. 'That person *swore*.'

In the second sentences of (40a) and (40b), the subject NPs provide the information sought by the preceding *wh*-questions and hence are focused, while the verbs are not focused. Accordingly, the verbs are not prosodically prominent in these sentences; the high tone on the verb *detekita* in (40a) and the high tone on the verb *donatta* in (40b) are both clearly downstepped. In the second sentences of (40c) and (40d), on the other hand, the verbs provide the information sought by the preceding *wh*-questions and hence are focused. Accordingly, the verbs are prosodically prominent in these examples; the high tone associated with the first mora of the verb *detekita* in (40c) is not downstepped or otherwise subdued, the first mora of the verb *donatta* in (40d) audibly undergoes Initial Lowering, and the high tone associated with the second mora of the verb in (40d) is not downstepped or otherwise subdued. Thus, as far as these simple examples are concerned, there seems to be a straightforward one-to-one correspondence between foci and prosodic prominences.

Next, I would like to examine Culicover and Rochemont's (1983) interpretation and Selkirk's (1995) interpretation of the English counterpart of (39b) and (39c). They are both incompatible with my interpretation, and if one of them is correct, then the contrast between (39b) and (39c) cannot be said to provide any support for my theory of *ga*-ellipsis. It turns out that there are reasons to prefer my interpretation over the alternatives.

In Culicover and Rochemont's (1983) view, the English counterpart of a sentence like (39b) (for example *The HOUSE is on fire*) does not constitute a single focus. In their view, what is being focused in a sentence of this type is not the sentence as a whole but the subject NP. Apart from its semantic implausibility, there is an obvious problem in applying this interpretation to the relevant Japanese examples. If their interpretation were to be applied to the sentence in (39b), for instance, the sentence is expected not to allow *ga*-ellipsis, due to the Antifocus Constraint, when the fact is that the sentence does allow *ga*-ellipsis. Thus Culicover and Rochemont's interpretation of the corresponding English facts cannot be profitably applied to the Japanese facts at hand.

In Selkirk's (1995) view, the English counterpart of a sentence like (39b) constitutes a single focus, as I claim it does, but the English counterpart of a sentence like (39c) (for example *A proFESSor SWORE*), which I claim is composed of two foci, optionally constitutes a single focus as well. Her theory is stated as in (41)–(43), and is coupled with the assumption that the subject of an unaccusative verb is an internal argument of the verb while the subject of an unergative verb is not. Note that, when an English expression is said to be *accented*, it means that the expression is associated with a certain pronounced pitch movement, usually a rise followed by a fall (see Ladd (1996) for a detailed discussion of the notion of accent).

(41) An accented word is F-marked.

(42) a. F-marking of the head of a phrase licenses the F-marking of the phrase.

  b. F-marking of an internal argument of a head licenses the F-marking of the head.

  c. F-marking of the antecedent of a trace left by NP- or *wh*-movement licenses the F-marking of the trace.

(43) a. ...the Focus of a sentence (FOC) is defined as an F-marked constituent not dominated by any other F-marked constituent.

  b. ...F-marked constituents which are not a Focus are interpreted as new in the discourse, while a constituent without F-marking is interpreted as given.

Let us see how her theory applies to the following two examples, taken from Faber (1987).

(44) (from Faber (1987))

  a. It's just the SECretary TYPing.

b. It's just the DOOR slamming.

In (44a), the noun *secretary* and the verb *typing* are accented and hence F-marked, due to (41). The noun phrase *the secretary* is optionally F-marked, due to the first clause of (42). The sentence *the secretary typing* is also optionally F-marked, due to the first clause of (42). If the sentence *the secretary typing* is F-marked, then the subject NP *the secretary* cannot be the Focus of the sentence, due to the first clause of (43). If the noun phrase *the secretary* is F-marked but the sentence *the secretary typing* is not F-marked, then the subject NP can be the Focus of the sentence. In (44b), the noun *door* is accented and hence F-marked, due to (41). The verb *slamming*, which is an unaccusative verb, is optionally F-marked, due to the second clause of (42), and if it is F-marked, the sentence *the door slamming* in turn is optionally F-marked, due to the first clause of (42). If the sentence *the door slamming* is F-marked, then the subject NP *the door* cannot be the Focus of the sentence, due to the first clause of (43). If the sentence is not F-marked, then the subject NP can be the Focus of the sentence. Notice that, in Selkirk's analysis, the subject NP of a sentence like (44a) and the subject NP of a sentence like (44b) have the same status: they are both optionally interpreted as new in the discourse, due to the first clause of (41) and the second clause of (43), and they may or may not be interpreted as the Foci of the respective sentences, depending on whether the S nodes dominating those NPs are F-marked. Thus, if Selkirk's analysis is correct, then there will be no way for the Antifocus Constraint to be relevant for the contrast between unaccusative sentences and unergative sentences.

Selkirk's failure to state exactly what she means by the term *Focus* makes her theory difficult to evaluate. There are, however, at least two reasons to be skeptical about her theory. First, her theory predicts that, if a sentence is composed of a subject NP and a verb and the verb but not the subject NP is accented (as in *The door SLAMMed*), the sentence as a whole can still be interpreted as constituting a single focus. This seems to be the wrong prediction, at least if the term *focus* is interpreted in one of the standard ways (Hirotani (1997)). Second, Selkirk's theory predicts that, as far as focus distribution is concerned, the set of interpretations that can be given to an unaccusative sentence whose subject and whose verb are both accented (e.g. *The DOOR SLAMMed*) is a subset of the interpretations that can be given to the corresponding sentence in which only the subject is accented (e.g. *The DOOR slammed*). This is a false prediction. The former type of sentence has an interpretation in which the subject NP and the verb are individually focused (in the sense that I defined earlier in this article), an interpretation that the latter type of sentence does not have. My theory of the interaction between focus and prosodic prominence, which will be given a precise formulation in the next subsection, does not encounter either of these difficulties.

Thus there are some reasons to prefer my interpretation over Culicover and Rochemont's and Selkirk's interpretations. Therefore the contrast between

(39b) and (39c) does provide support for my theory of *ga*-ellipsis.

5.2 *A more precise formulation of the theory*

It is obviously not enough to state that there is a one-to-one correspondence between foci and prosodic prominences. A more precise formulation of my theory is given in (45) and (46).

(45) a. A string can be focused only when (i) the string is immediately preceded by and immediately followed by an f-boundary and (ii) there is no f-boundary inside the string.

  b. When a string is focused, the leftmost word in that string becomes prosodically prominent.

(46) a. There are f-boundaries at the beginning and the end of an utterance.

  b. An f-boundary can be optionally inserted anywhere.

  c. There is an f-boundary between a predicate and its subject except when (i) the clause expresses the existence, the appearance, or the arrival of the denotation of the subject and (ii) there is no f-boundary inside the predicate.

The proposed analysis is based on the view that what is focused as a single unit is not necessarily a morphosyntacic constituent, a view shared by Gussenhoven (1983, 391), who defines the notion of *focus domain* as "one or more constituents whose [+focus] status can be signalled by a single accent," and by Pierrehumbert and Beckman (1988, 109), who speculates that "the accentual phrase, rather than the word, is the minimal domain for focus in Japanese," where the term *accentual phrase* refers to a prosodic, rather than morphosyntactic, constituent. This view receives support from examples like (47) and (48). In the latter half of (47), the string *kyanpasu e itta* is being contrasted with the earlier string *konpyûta o tsukatta*, and in the latter half of (48), the string *koe ga kikoeta* is being contrasted with the earlier string *kao ga mieta*. None of these four strings form syntactic constituents.

(47) [Sutanfôdo no KONPYÛTA o tsukatta] koto wa aru kedo,
  [Stanford GEN computer ACC use-PAST] NML TOP exist-PRES though
  [Sutanfôdo no KYANPASU e itta] koto wa NAI.
  [Stanford GEN campus LOC go-PAST] NML TOP exist.NEG-PRES
  'I've used a computer of Stanford University before, but I've never <visited the campus> (as opposed to <used a computer>) of Stanford.'

(48) [Kanojo   no   KAO ga/∅ mieta]   koto wa aru
     [that woman GEN face NOM can be seen-PAST] NML TOP exist-PRES

     kedo,   [kanojo   no   KOE ga/∅ kikoeta]   koto wa
     though [that woman GEN voice NOM can be heard-PAST] NML TOP

     ICHIDO mo   nai.
     once   even exist.NEG-PRES

     'There has been a situation in which that woman's face was seen, but
     there's never been a situation in which that woman's <voice was heard>
     (as opposed to <face was seen>).'

The proposed theory entails that something that is not assigned a semantic
interpretation can nevertheless be focused as a single unit, as a string is not as-
signed a semantic interpretation unless it forms a morphosyntactic constituent.
This feature of the proposed theory, which makes it incompatible with Rooth's
(1992) theory of focus semantics, enables us to make sense of examples like the
following.

(49) Boku GA   oidashita   n   desu.
     I   NOM drive out-PAST NML COP.PRES

     'I drove him/her/them out; it's not the case that he/she/they drove me
     out.'

In this example, a nominative case particle *ga*, which arguably does not have
semantic content, is focused. It seems to be the case that the particle is being
contrasted with other particles such as the accusative case particle *o*. This type
of example cannot be dealt with in Rooth's theory, where it is claimed that it is
not a focused expression itself but the denotation of a focused expression that
is interpreted as contrasting with some other object(s) of the same type.

   Another point to note in connection with the proposed theory is that it does
not make reference to the distinction between unaccusative verbs and unergative
verbs or, for that matter, to the distinction between individual-level predicates
and stage-level predicates. The theory instead makes reference to the distinction
between clauses that express the existence, the appearance, or the arrival of
the denotations of the subject NPs and clauses that do not. It turns out to
be this distinction, and not the distinction between unaccusative verbs and
unergative verbs or the distinction between individual-level predicates and stage-
level predicates, that focus distribution is sensitive to. Consider the following
examples.

(50) (from Kori (1992))

   a. Sakki   TSUKI   ga   KAKURETA.
      a moment ago the moon NOM go out of sight-PAST

      'The moon went out of sight a moment ago.'

b. Sakki   TSUKI   ga   mieta.
   a moment ago the moon NOM come in sight-PAST
   'The moon came into sight a moment ago.'

(51) (adapted from Hirotani (1997))

   a. ME ga AKAI nê. 'Your eyes are red, isn't it?'

   b. ME ga KUROI nê. 'Your eyes are black, isn't it?'

(52) —Gengo-gakkai de NANI ga atta? 'What happened at the Linguistic
     Society meeting?'
     —YAMADA SAN ga happyô shita yo. 'Yamada san made a presentation.'

(50a) and (50b) are both headed by an unaccusative verb, but the verb is prosodi-
cally prominent only in (50a). (51a) is headed by a stage-level predicate while
(51b) is headed by an individual-level predicate, but the two sentences share the
same intonational pattern in which the subject and the verb are both prosodi-
cally prominent. The second sentence in (52) is headed by an unergative verb,
just like (27), but its verb is not prosodically prominent. All these examples
are correctly accounted for in the proposed account. (50a) does not express the
existence, the appearance, or the arrival of the moon, so an f-boundary must
be inserted between the subject and the verb, preventing the whole clause from
functioning as a single focus. (50b), on the other hand, expresses the appear-
ance of the moon in the sky, and hence an f-boundary does not have to be
inserted between the subject and the verb. If no f-boundary is inserted between
the subject and the verb, the whole clause can be focused as a single unit by
making the first word of the clause prosodically prominent. Neither (51a) nor
(51b) expresses the existence, the appearance, or the arrival of the denotation of
the subject, so these sentences behave the same way that (50a) does. The sec-
ond sentence in (52) expresses the appearance of Yamada san at the Linguistic
Society meeting, so it behaves the same way that (50b) does.

5.3   *Word order*

In this subsection, I will argue that the fact noted in (28d) (namely the fact that,
as shown in (19), *ga* is harder to drop when it is not adjacent to a predicate) is
also a consequence of the Antifocus Constraint.

   The key component of the proposed account is the second clause of (46c),
which requires there to be an f-boundary between a predicate and its subject
when there is an f-boundary inside the predicate. Let us see how this allows
us to explain the contrast between (19a) and (19b), which are reproduced in a
slightly different form as (53a) and (53b) below.

(53) a. KIMI ate   ni GAKKÔ e   TEGAMI ∅ todoita   yo.
         you address DAT school LOC letter   arrive-PAST I tell you

     b.?KIMI ate   ni TEGAMI ∅ gakkô e   todoita   yo.
         you address DAT letter   school LOC arrive-PAST I tell you

The second clause of (46c) is irrelevant to (53a), as there is only one word in the predicate here and there cannot be an f-boundary inside a word. In the case of example (53b), on the other hand, the second clause of (46c), in conjunction with the Antifocus Constraint, has the effect of ensuring that no word following the subject NP receives prosodic prominence. If the noun *gakkô* were prosodically prominent, it would mean that the subject and the predicate in this sentence were individually focused, and the sentence would be ruled out by the Antifocus Constraint. If any of the words following *gakkô* were prosodically prominent, it would mean that there was an f-boundary inside the predicate, and an f-boundary would be obligatorily inserted immediately after the subject NP, resulting in a violation of the Antifocus Constraint. Now, a sentence tends to become awkward when there is a long series of words that are not prosodically prominent, as evidenced by the examples in (54).

(54) a.?KANOJO no   konpyûta no disupurê no ue no hokori
         her   GEN computer GEN display GEN top GEN dust
         'the dust on the top of her computer's display'

     b. KANOJO no   konpyûta no DISPURÊ no ue no hokori
         her   GEN computer GEN display   GEN top GEN dust

Poser (1984, 155) and Kubozono (1993, 164) are referring to the same phenomenon, when they state that there is a tendency to avoid constructing excessively large minor phrases;[8] what they call a minor phrase is, roughly speaking, a sequence of words in which only the first word is prosodically prominent.[9] Whatever the ultimate reason for the unnaturalness of sentences like (54a) turns out to be, the slight awkwardness of (53b) can now be seen as a consequence of the fact that the second clause of (46c), together with the Antifocus Constraint, forces there to be an excessively long sequence of words that are not prosodically prominent.

The second clause of (46c) is independently motivated by an example like the following.

(55) ?*KIMI ate   ni TEGAMI ∅ gakkô e   TODOITA yo.
        you address DAT letter   school LOC arrive-PAST I tell you

This example is identical to (53b), except that the verb is prosodically prominent in this example. Given the second clause of (46c), the low acceptability of

this example is expected, as the clause requires there to be an f-boundary immediately after the subject NP, yielding a violation of the Antifocus Constraint. Without the second clause of (46c), the prosodic prominence on the noun *tegami* could be taken to focus the string *tegami gakkô e*, and the low acceptability of this example would remain unaccounted for.

I would like to close this subsection with the speculation that the slight awkwardness of *ga*-ellipsis in examples like (26) and (38) might receive an essentially identical explanation.

6 Summary

In this article, I have critically reviewed two previous analyses of *ga*-ellipsis (section 3), proposed a constraint that prohibits the nominative case particle *ga* from being dropped when it marks a focused expression (section 4), and argued that the constraint accounts for two puzzling facts about *ga*-ellipsis that have been reported in the literature, namely the fact that *ga* appears to be harder to drop when the particle marks an unergative subject and the fact that *ga* is harder to drop when it is not adjacent to a predicate (section 5). The proposed theory was shown to have some implications for the general theory of the interaction between focus and intonation (subsection 5.1).

NOTES

[1] Kageyama (1993) also claims that *ga* cannot be dropped when it marks the subject of an unergative predicate.

[2] The questionnaire survey at Numazu Kôgyô Kôtô Senmon Gakkô was in fact carried out by Toshikazu Kikuchi.

[3] The idea that the observation stated in (28e) might be reducible to the Antifocus Constraint was first suggested to me by Masaki Sano (personal communication) in 1995.

[4] The speaker *could* choose to contrast that individual with some other individual(s). When such a reading is intended, the sentence in (38) is unacceptable.

[5] For information on Initial Lowering, see Pierrehumbert and Beckman (1988), Kubozono (1993), and the references cited there.

[6] Here, and throughout this article, when I say that a Japanese expression is *accented*, what I mean is not that the expression is pronouced higher or louder than usual but that the expression contains a mora that is lexically linked to a high tone. See Pierrehumbert and Beckman (1988) and Kubozono (1993) for more information on this subject.

[7] See Pierrehumbert and Beckman (1988) and Kubozono (1993) for detailed discussion of downstep (which Pierrehumbert and Beckman refers to as catathesis.)

[8] In fact, Kubozono (1993) claims that this is not the correct way to characterize the phenomenon in question. The present discussion is not affected by this disagreement.

[9] In fact, their definition of minor phrase is slightly different from what I describe in the text, but the difference is irrelevant in the present context.

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