

# On unpronounced arguments in Japanese

Tyler Peckenpaugh

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## Abstract

Abe (2011) provides convincing evidence that parasitic gaps exist in Japanese, contra to Takahashi's (2006) claim that apparent parasitic gaps should be analyzed as argument ellipses. This paper seeks to potentially support and simplify Abe's (2011) parasitic gap analysis. It reviews the nominal empty categories that must be assumed to be part of the Japanese inventory by Abe's (2011) as well as Takahashi's (2006) analysis, and suggests that minor refinements to Abe's (2011) might allow for a simpler null nominal inventory for Japanese that more closely match the inventory of such null elements that are predicted by Universal Grammar.

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## **1 Introduction**

The motivation for this paper is to attempt to expand upon Abe’s (2011) case for the existence of parasitic gaps in Japanese, which itself was a response to Takahashi’s (2006) work on apparent parasitic gaps in Japanese. Where Takahashi (2006) argues that apparent parasitic gaps in Japanese should be treated as argument ellipses, Abe (2011) argues that at least in some cases they are true parasitic gaps. This paper seeks to provide some small insight into the matter by weighing the predictions each analysis makes in terms of what unpronounced nominal elements are required, and what the suggested properties of those elements are.

Ultimately, this paper supports the analysis of apparent parasitic gaps as real parasitic gaps in those places where Abe (2011) shows it to be possible, and as pro in other places. Where ellipses does occur, it is standard predicate ellipses in the sense of Lobeck (1995), rather than nominal argument ellipsis. If this suggestion is accepted, it has the benefit of requiring only the inventory of phonologically null nominals expected by UG.

## 2 Empty categories in UG

This section will consider the empty categories that are generally thought to be a part of Universal Grammar (UG hereafter) and attempt to reconcile the UG inventory with that of Japanese as predicted by Abe's (2011) parasitic gaps analysis. Chomsky (1982) proposes that the set of nominal elements in UG, both pronounced and unpronounced, can be captured with two features:  $\pm$ anaphor and  $\pm$ pronominal.

- (1) **Nominal elements** (Chomsky 1982 via Black 1999)

	pronounced	unpronounced
[+anaphor, -pronominal]	anaphor	A-movement trace
[-anaphor, +pronominal]	pronoun	pro
[+anaphor, +pronominal]	-	PRO
[+anaphor, -pronominal]	R-expression	$\bar{A}$ -movement trace

This simply outlines the empty (unpronounced) categories predicted by the schema above. The next section considers their use in analyzing unpronounced arguments in Japanese.

### 2.1 A and $\bar{A}$ traces

The existence of trace is fairly uncontroversial throughout syntactic theory, and so this paper assumes its existence in UG and in Japanese without comment. It's worth considering the idea that traces are predicted to be +anaphoric in nature and thus must always be bound. Traces of A-movement are predicted to need a "closer" antecedent than traces of  $\bar{A}$ -movement by virtue of the latter's +pronominal feature.

### 2.2 PRO and its missing overt twin

The explanation for the [+anaphor, +pronominal] gap in the set of pronounced nominals predicted in (1) is that such an element would violate Binding Principles A or B, or be unbound and thus not receive case (Haegeman, 1994).

(2) **Binding principles** (Haegeman, 1994)

- **Principle A:** An anaphor must be bound in its governing category.
- **Principle B:** A pronoun must be free in its governing category.
- **Principle C:** An R-expression must be free everywhere.

That is, a “pronounced PRO” is impossible: either its +anaphor nature would violate Principle A, or its +pronominal nature would violate Principle B, or it would be ungoverned and unable to be case-marked. Refer to Chomsky (1982), Haegeman (1994), or many others for more on the case-marking requirement of nominal elements.

Traditionally, the licensing of PRO has been linked to the non-finiteness of certain embedded clauses. Its reference has been considered to be either explicitly bound, or “universally bound.” Consider Martin’s (2001) examples:

- (3)
- a. Kerry<sub>*i*</sub> attempted PRO<sub>*i*</sub> to study physics.
  - b. Kerry persuaded Sarah<sub>*i*</sub> PRO<sub>*i*</sub> to study physics.
  - c. It is not easy PRO<sub>*anyone*</sub> to study physics.

In (3a), PRO is bound by the subject of the matrix clause. In (3b) it is bound by the matrix object. In (3c) it is in some sense bound by discourse. This property of PRO is often called control (obligatory or optional; this status has to do with the verb in a given sentence rather than PRO itself). While the possible reference of PRO is interesting, further discussion is outside the scope of this paper.

Of interest to this paper is the difficulty of nailing down the distribution of PRO in Japanese (e.g. see Fujii, 2006), because of its apparent use of control structures in tensed clauses. This is revisited briefly in section §3.5. For more on PRO in general, see Martin (2001).

### 2.3 A null operator: OP

In addition to these nominal elements, this paper will also look at the null element OP, which is an unpronounced operator most commonly considered a relative pronoun. Notice that in both (4a and 4b) it is Gerald who is attacking Francis; there is little to no difference in meaning between the two.

- (4) Winston hates Gerald more than anything.
- a. [The man<sub>i</sub> [whom<sub>i</sub> Winston hated most t<sub>i</sub>]] attacked Francis.
- b. [The man<sub>i</sub> [OP<sub>i</sub> Winston hated most t<sub>i</sub>]] attacked Francis.

OP is considered to be an unpronounced element that can do the same work as relative pronouns (usually *wh*-elements) like *who*, etc.

## 2.4 Parasitic gaps and elided nominal-arguments

A parasitic gap is potentially another sort of empty category, as is an elided nominal-argument. This paper will seek to categorize these elements within the schema proposed by Chomsky (1982) listed in (1) above, and the independently motivated null element OP.

For now, simply take note of some of the properties of parasitic gaps given by Engdahl (1983):

- (5) “Optional” parasitic gaps
- follow the real gap
  - primarily occur in (untensed) adverbial and complement clauses
  - are in almost free variation with unstressed personal pronouns, which are understood to be coreferential to or bound by the filler.
- (6) “Obligatory” parasitic gaps
- precede the real gap
  - primarily occur in gerunds and noun complements
  - can normally not be replaced by a coreferential pronoun without significant loss of acceptability.

Engdahl’s (4) is an example of an obligatory parasitic gap (parasitic gaps are marked as  $e_p$  here):

- (7) Which boy did Mary’s talking to  $e_p$ /\*him bother t most?

While Engdahl's (3) is an optional one:

(8) This is the kind of food you must cook *t* before you eat *e<sub>p</sub>/it*.

The structure of these gaps that this paper assumes is discussed in section §3.4.1.

### 3 Null arguments in Japanese

That arguments are sometimes not pronounced in Japanese is mostly uncontroversial. These sentences, from Takahashi (2006), demonstrate the phenomenon:

(9) *Taroo-wa Hanako-ni kare-ga/e sono syoku-ni kanozyo-o/e*  
Taroo-Top Hanako-to he-Nom/e that position-to her-Acc/e  
*suisensuru to itta.*  
recommend that said

“Taroo told Hanako that (he) would recommend (her) for that position.”

The relevant fact is that is that the subject and the object of the embedded clause can be either pronounced has overt pronouns (subject *kare*, object *kanozyo*) or unpronounced, without any change in meaning.

What is less clear is how these unpronounced nominal elements should be categorized. This section explores various options and attempts to motivate the simplest possible analysis.

#### 3.1 OP in Japanese

The presence of *OP* in Japanese is supported by the analysis of relative clauses and comparative deletion discussed by Ishii (1991). Since *OP* is generally considered to be used for relative clauses in other languages, it is often assumed to be used for such constructions in Japanese as well. It is worth noting, however, that *OP*'s existence in Japanese is not without controversy. For example, a self-paced reading study reported by Miyamoto and Nakamura (2003) showed an asymmetry in ease of processing subject gaps within relative clauses in Japanese, despite the prediction (based on linear order) that object gaps should be easier due to their proximity to the co-referent head noun (depending on your analysis of relative clause structure in Japanese, the moved *OP* might be closer to the subject or to the

object). They concluded that the gap in Japanese relative clauses might be better analyzed as *pro*.

### 3.2 Japanese null arguments as *pro*

The standard account of unpronounced (nominal) arguments, often called *pro*-drop, is that the unpronounced arguments are nonetheless syntactically present as a null pronoun called *pro*. The existence of this empty category is well motivated by other so-called *pro*-drop languages, like Romance (e.g., see Zushi, 2003). Perhaps the most convincing evidence for its existence and pronoun-like properties come from its interaction with the Binding Principles, mentioned previously (see (2) above)

Zushi (2003) provides the following Spanish sentence to demonstrate that binding relations hold between *pro* and potential antecedents (Zushi’s 5a, slightly modified):

- (10) [*Juan*/*èl*/[*e*]]<sub>i</sub> *siempre habla de si mismo*/\**èl*<sub>i</sub>/\**Juan*<sub>i</sub>.  
 Juan/he/[*e*] always talks about himself/\*him/\*Juan.  
 “Juan always talks about himself.”

The important fact here is that when the subject is not pronounced (i.e. it is an empty category or phonologically null but syntactically present element: *pro*), the same consequences are imposed on the second nominal element as when there is an explicit pronominal or R-expression subject. Regardless of whether the subject in (10) is a name (R-expression), pronoun, or not pronounced, only a reflexive is permissible when we get to the object if we intend co-reference with the subject. This suggests that even when the subject is not pronounced, it serves as a binder/antecedent for subsequent elements (Zushi, 2003) and thus Principle C bans R-expressions from occurring in the configuration that the object of (10) is in, and Principle B bans a co-referent pronoun in that position.

The same pattern can be found in Japanese (Zushi’s 34 and 35, combined and slightly reconfigured):

- (11) *Kare*\*<sub>i/h</sub>-*ga*/[*e*\*<sub>i/h</sub>] [*Ralph*<sub>i</sub>-*ga* *Mary*-*o* *butta to*] *omotta*  
 (he-nom) Ralph-nom Mary-acc hit that thought  
 “(He<sub>h</sub>) thought that Ralph<sub>i</sub> hit Mary.”

Whether pronounced or not, the subject in (11) cannot refer to Ralph; rather, it must refer to an arbitrary third party. Consider also the example below (Zushi's 32):

- (12) *Ralph<sub>i</sub>-ga* [*e<sub>i/j</sub>* *Mary-o* *nagutta to*] *itta*  
Ralph-nom e Mary-acc hit that said  
"Ralph said that (he) hit Mary."

The element represented by *e* can either be interpreted as Ralph or as an arbitrary third party. This, again, patterns with overt pronouns.

### 3.3 Japanese null arguments as ellipses

First and foremost it is worth noting that ellipsis is not a well-understood process. Lobeck gives the following properties of ellipses, based on work by Jackendoff (1971), Williams (1977), and Chao (1988):

- (13) Ellipsis (Lobeck 1995)
- a. An ellipsis can be phrase-final.
  - b. An ellipsis can occur in either a subordinate or coordinate clause separate from that containing its antecedent.
  - c. Ellipsis obeys the Backwards Anaphora Constraint.
  - d. Ellipsis operates on phrasal categories.
  - e. Ellipsis occurs across utterance boundaries.
  - f. Ellipsis violates the Complex NP Constraint.
  - g. An ellipsis can have a pragmatic antecedent.

Based on various facts, she asserts that "the empty categories that arise from VP Ellipsis, ellipsis in NP, and Sluicing are best analyzed as non-arbitrary, non-NP *pro*, identified through reconstruction." According to Johnson (2001) on the other hand, "An elided VP is neither a *pro*-form nor a trace. It is a creature apart." It is Johnson's opinion that VP-ellipses and similar structures should be conceptualized as involving VP-topicalization, followed by an as-of-yet unexplained deletion process.



Give that ellipses is not well explained, and that there is no clear evidence that it should be applicable to nominal arguments, this paper seeks to challenge the idea that Japanese makes use of nominal-argument deletion.

### 3.3 Takahashi's case for nominal-argument ellipsis

Takahashi (2006) argues that at least some cases of argument drop in Japanese should be treated as argument ellipses, rather than the typical *pro* analysis. To support the claim that *pro* cannot account for all instances of unpronounced arguments, he provides the following examples (Takahashi's 21a-b, slightly modified):

*NB: indexation here shows coreference, not movement. The trace is left by movement of the wh-element.*

- (14) [*Hazimete*  $pro_i$  *au hito*]-*ga*  $t_i$  *kenasu no-wa*  
 for-the-first-time  $him_i$  see person-Nom  $t_i$  criticize that-Top  
*dare-o\_i desu ka?*  
 who-Acc<sub>i</sub> is Q

“Who<sub>i</sub> is it that people who see him<sub>i</sub> for the first time criticize?”

- (15) [ $pro_i$  *yonda gakusei*]-*ga*  $t_i$  *unzarisita no-wa* [*dono*  
 $it_i$  read student-Nom  $t_i$  got-bored-with that-Top [which  
*ronbun-ni*]<sub>i</sub> *desu ka?*  
 paper-Dat]<sub>i</sub> is Q

“Which paper<sub>i</sub> was it that the student who read it<sub>i</sub> got bored with?”

Takahashi notes that if the gap in (14) and (15) were really *pro*, then these sentences should be ungrammatical, contra the facts, due to a weak-crossover violation. Since *pro* is not c-commanded by the trace of the wh-element or the wh-element itself, the bound reading of the gap should not be possible if it were *pro*.

### 3.3 Abe's rebuttal

In response, Abe (2011) argues that examples like (14) and (15) are in fact *pro*, and that binding is able to occur via a particular sequence of configurations: first, the wh-element undergoes clause-internal scrambling to a position where it can bind *pro*, and only then is the clefted subordinate clause moved to the left periphery of

the matrix clause. I attempt to represent Abe’s (2011) derivation schematically in (16):

(16) a.  $\emptyset$ -topic [<sub>TP</sub> [<sub>CP</sub> [<sub>VP</sub> pro<sub>i</sub> ...] wh-element<sub>i</sub> ... ] ... ]

*wh-element scrambles to the edge of its clause*

b.  $\emptyset$ -topic [<sub>TP</sub> wh-element<sub>i</sub> ... [<sub>CP</sub> [<sub>VP</sub> pro ...] t<sub>i</sub> ] ... ]

*embedded clause moves to topic position*

c. [<sub>CP</sub> [<sub>VP</sub> pro ...] t<sub>i</sub> ]<sub>h</sub>-topic [<sub>TP</sub> wh-element<sub>i</sub> t<sub>h</sub> ... ]

Thus, pro is able to be bound by the wh-element in configuration (16b).

### 3.3 Lingering issues


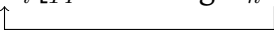
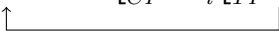
There are some instances where Abe (2011) accepts the need for an ellipsis explanation. One such instance is this example] (Abe’s 12):

(17) *Taroo-ga zibun-o hihansita ra, Hanako-wa e hometa.*  
 Taroo-Nom self-Acc criticized and Hanako-Top e praised  
 lit. “Taroo criticized himself and Hanako praised e.”

According to Abe, it would be difficult to analyze the gap in (17) as a parasitic one, seeing as in his view there is no “real gap” to license it (whether such licensing is actually necessary remains to be explored). Likewise, *pro* is not viable because Abe and others claim that (17) allows a sloppy reading (i.e. “Taroo criticized himself, and Hanako praised herself”).

It is worth noting that a survey of six adult native speakers of Japanese found the strict reading of (17) (i.e. “Taroo criticized himself, and Hanako praised (him/Taroo)”) to be substantially more salient. It doesn’t seem unreasonable to consider that the gap in (17) is in fact normally *pro*, and that the availability of the sloppy reading (preferred as it is) results from a less-than-typical process.

It is also possible to come up with a plausible analysis where it is in fact a parasitic gap with the derivation in (18). The motivation for considering a parasitic gap to be a null operator is discussed further in the next section.

- (18) a. Taroo-ga zibun-o hihansita ra,  $\emptyset$ -wa [<sub>vP</sub> Hanako-ga OP hometa]  
*A-movement: subject raises out of vP*
- b. ... ra,  $\emptyset$ -wa [<sub>TP</sub> Hanako-ga<sub>h</sub> [<sub>vP</sub> t<sub>h</sub> OP hometa]]  
  
*Ā-movement: OP raises and binds its trace*
- c. ... ra,  $\emptyset$ -wa OP<sub>i</sub> [<sub>TP</sub> Hanako-ga t<sub>h</sub> t<sub>i</sub> hometa]]  
  
*Ā-movement: topic moves out of clause*
- d. ... ra, Hanako -wa [<sub>CP</sub> OP<sub>i</sub> [<sub>TP</sub> t<sub>h</sub> t<sub>i</sub> hometa]]]  


The configuration in (18d) allows for Hanako to assign its reference to the parasitic gap.

The other fact that leads Abe (2011) to accept argument ellipsis as an available process in Japanese has to do with this example:

- (19) [[Hanako-ga e natta toyuu] uwasa-o kiita] hito-ga  
 Hanako-Nom e became Comp rumor-Acc heard person-Nom  
 zibun-mo t naroo to siteiru] no-wa dorekurai hosoku desu  
 self-also t become Comp be-trying NL-Top how slim be  
 ka?

Q

lit. "How slim is it that a person who heard the rumor that Hanako became e is trying to become t him/herself?"

According to Abe, (19) is problematic for a parasitic gap analysis because it appears to show insensitivity to island constraints. Abe cites Chomsky (1986) to support the claim that parasitic gaps are sensitive to islands (Abe's 7):

- (20) a. He's a man that [anyone who talks to e] usually likes t.  
 b. He's a man that [anyone who tells people to talk to e] usually likes t.  
 c. \*He's a man that [anyone who meets people who talk to e] usually likes t.  
 d. \*He's a man that [anyone who asks when to talk to e] usually likes t.

A similar example also shows that a sloppy reading is available in these sorts of constructions, ruling out a nominal *pro*. Consider (Abe’s 63):

- (21) [[*Zissai-ni e natta*] hito-ga Taroo-ni t naru-yooni susumeta]  
 actually e became person-Nom -Dat t become advised  
*no-wa zibun-no koukou-zidai to onazi kurai hosoku desu.*  
 NL-Top self-Gen high school-days with same extent slim be  
 lit. “It is as slim as in self’s high school days that a person who actually  
 became e advised Taroo to become t?”

The gap in (21) can be interpreted either as “as slim as (Taroo) in Taroo’s high-school days,” or, “as slim as (the person doing the advising) in his high school days.” While these examples may best be considered ellipsis, they should likely be classified as predicate ellipses: the gap is referring to an adverbial “how slim” rather than a nominal referent.

This might perhaps support the Lobeck (1995) claim that ellipses is best treated as non-nominal *pro*. If the gaps in (19–21) are indeed *pro*, but do not have nominal status, we have the benefit of understanding the gaps’ category, and we have an explanation for the issues that the examples present for a no-nominal-argument account of Japanese. Specifically: the island insensitivity is explained because ellipses is not sensitive to island constraint. The availability of the sloppy reading, despite the fact that the gap is categorized as *pro*, can be attributed to the non-nominal nature of the *pro* being used.

### 3.4 (Some) Japanese null arguments as parasitic gaps

The most convincing case for the existence of parasitic gaps that Abe (2011) provides has to do with the facts regarding the availability of “sloppy” and “strict” readings of these examples (Abe’s 25 and 27):

- (22) [[*Taroo-ni e suteru yoo-ni meezita*] hito-ga Hanako-ni t totteoku  
 Taroo-Dat e discard ordered person-Nom H-Dat t keep  
*yoo-ni meezita*] *no-wa zibun-no donna syasin-o desu ka?*  
 ordered NL-Top self-Gen what picture-Acc be Q  
 “What kind of picture of self was it that the person who ordered Taroo to  
 throw e away ordered Hanako to keep t?”  
 (Both sloppy and strict available.)

- (23) [[*Taroo-ni e suteru yoo-ni meezita*] *hito-ga Hanako-ni t*  
 Taroo-Dat e discard ordered person-Nom H-Dat t  
*kisu-maaku-o tukete-oku yoo-ni meizita no*]-*wa zibun-no donna*  
 kiss-mark-Acc put ordered NL-Top self-Gen what  
*syasin-ni desu ka?*  
 picture-Dat be Q  
 “What picture of self was it that the person who ordered Taroo to throw e  
 away ordered Hanako to put a kiss-mark on t?”  
 (Only strict available.)

Before going into Abe’s argument, let’s clarify what is meant by “sloppy” vs. “strict.” In (22), there is a possible interpretation where the picture that Taroo is ordered to throw away is a picture of Hanako, and the picture that Hanako is ordered to keep is also a picture of Hanako same picture. This is called the “strict” reading, because the object of both verbs maintains the same referent (a picture of [*zibun* = Hanako]). Alternatively, the same sentence can also be interpreted such that while Taroo is ordered to throw away one picture (a picture of Taroo), Hanako is ordered to keep a different picture (one of Hanako not Taroo). This is called the “sloppy” reading because, in a sense, the referent of *zibun* changes (picture of [*zibun* = Taroo] → picture of [*zibun* = Hanako]). It’s critical to notice that unlike (22), (23) has only one reading; the picture being thrown away and the one being kissed are the same.

Using these facts, Abe argues that the best way to account for contrast in the availability of the sloppy reading is to suggest that while (22) allows a parasitic gap or *pro* to be the element represented by *e*, (23) does not have the parasitic gap available. This contrast can be explained by the fact that in (22) *e* and the trace of movement left by the *wh*-element *donna syasin* are both in positions where they receive accusative case (i.e. they are both direct objects), marked by *-o* in Japanese. Conversely, the two null nominal elements are assigned different cases in (23): *e* is still receiving accusative case, but the trace of movement left by the *wh*-element *donna syasin* is receiving dative case (it is the indirect object), marked by *-ni* in Japanese. There is independent evidence to suggest that a parasitic gap must match its antecedent in case. See Abe’s (26) below:

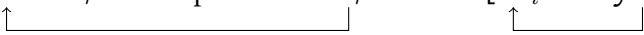
- (24) a. It was Ralph<sub>*i*</sub> that Mary believed t<sub>*i*</sub> to be a genius before Susan proved e to be (a genius).

- b. ?\* It was Ralph<sub>i</sub> that Mary believed t<sub>i</sub> was a genius before Susan proved e to be (a genius).

The contrast represented by (24) supports the case-matching requirement of parasitic gaps. Conversely, there is no evidence that *pro* or elided arguments have a case-matching requirement. An analysis of empty nominals in Japanese that suggests the gaps in (22), and (23) are always *pro*, or one that suggests the gaps are ellipses, cannot capture the case-match contrast: neither *pro* nor argument ellipses have compelling explanations for why they should care about matching case with other elements in a sentence.

### 3.4 What is a parasitic gap?

Chomsky (1986) suggests that a parasitic gap takes the form of an empty operator and its trace of movement. That analysis has been expanded upon by various authors, including Nissenbaum (1998) who gives us this sentence (his 2b, slightly modified):

- (25) Which book<sub>r</sub> did Ralph look for t<sub>r</sub> in order [OP<sub>i</sub> to buy t<sub>i</sub>]?  


This seems to capture the properties of parasitic gaps laid out by Engdahl (1983) and discussed briefly in section §2.4 of this paper.

### 3.4 Parasitic gaps recap

To recap, an analysis that allows for the existence of parasitic gaps and *pro* easily captures the facts regarding the availability of the sloppy reading in (22) and its lack of availability in (23). The sloppy reading is available when (22) represents a structure containing a parasitic gap, while the strict reading is necessary when the structure contains *pro*, since *pro* is not a reflexive.

### 3.5 PRO in Japanese

Japanese has an interesting property where it appears to make use of control structures in tensed embedded clauses, such as in this example from Fujii (2006):

- (26) *Hiroshi-wa* [*sono kyoodai<sub>i</sub>-ga* [ $\Delta$ *i otagai<sub>i</sub>-o*  
Hiroshi-Top [the brothers-Nom [e each other-Acc  
*tasuke-a-u-Comp*]-*o* *kessinsita-to*] *omotteiru*  
help-Recip-Prs-C]-Acc decided-C] think  
“Hiroshi thinks that the brothers decided to help each other.”

According to Fujii (2006), control in finite clauses seems to be limited to finite clauses of “abstract” nature (*koto* is an “abstractifying” complementizer). He details an interesting account of control and PRO’s distribution, leveraging this fact. Details of his work are beyond the scope of this paper.

## 4 The null nominal inventory of Japanese

There is a very small benefit in terms of complexity if the concept of nominal-elision is removed from the analysis of Japanese null arguments. Consider the following table:

(27) Necessary empty categories for three analyses.

	Takahashi (2006)	Abe (2011)	Revised Abe (2011)
pro	yes	yes	yes
A-trace	yes	yes	yes
$\bar{A}$ -trace	yes	yes	yes
PRO	?	?	?
elided NP	yes	yes	<b>no</b>
OP	yes	yes	yes

Because the Takahashi analysis is forced to admit the presence of OP, and the Abe analysis is forced to admit the presence of elided NPs, here is no real difference between the two with regard to the necessary empty categories. If, however, Abe’s analysis rejects NP-elision in favor of an alternative analysis, it gains the advantage. Because the existence of elided NPs are not well-supported for other purposes, this is much easier than attempting to do without OP. The existence of OP in Japanese is motivated independently for phenomena other than parasitic gaps, and so Takahashi’s omission of parasitic gaps from Japanese doesn’t save any inventory space, so to speak..

## 5 Conclusion

Many questions remain, not the least of which is how to fully account for all the properties of parasitic gaps across languages. This paper has lent some small amount of support to the idea that parasitic gaps exist in Japanese, in so far as that leveraging the common explanation of their structure seems to allow for the null nominal inventory of Japanese to be smaller and not so different from the one predicted by UG.

## References

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