Title	On Null Arguments in Japanese and Tagalog
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Citation	言語文化共同研究プロジェクト. 2022, 2021, p. 32-41
Version Type	VoR
URL	https://doi.org/10.18910/88332
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On Null Arguments in Japanese and Tagalog*

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1. Introduction

This paper provides additional evidence to support Otani (2021), who claimed that argument ellipsis is also available in Tagalog. It is well-known that CPs and PPs can be deleted using argument ellipsis in Japanese as these phrases are regarded as arguments (Saito 2007). Therefore, if argument ellipsis is possible in Tagalog, it is expected that these assumed argument phrases could also be elided. This study examined whether the deletion of these phrases was also possible in Tagalog, and found that CP-deletion is possible but PP-deletion is not. While no specific explanation for the differences between Japanese and Tagalog is available, a possible way to explain these differences is suggested in section 3.

First, to better understand the discussion in this paper, some background to the Tagalog language is given. Tagalog belongs to the Austronesian language groups and is mainly spoken in Manila, the Philippines. This language is a predicate-initial language in which the arguments are marked for case. Full determiner phrases (DPs) working as arguments have the case particles *ang* or *ng* (*si* and *ni* for [+proper, +animate] DPs). Verbs have a voice morphology that reflects the thematic role of the argument marked *ang*, as shown in (1).[1]

(1) a. **Nag**-luto   si Tom ng sisig.
         AV-PFV-cook   Ang Tom Gen sisig
         'Tom cooked sisig.'   (Agent Voice (AV))
     b. **Ni**-luto   ni Tom ang   sisig.
         PV.PFV-cook   Gen Tom Ang   sisig
         'Tom cooked sisig.'   (Patient Voice (PV))

In (1a), as the agent is *ang*-marked, the verb has an actor voice. In (1b), the *ang*-marking element functions as the patient in this sentence, and the verb is marked with the patient voice.

It is well-known that Tagalog permits both the subjects and objects to be dropped, as respectively shown in (2a) and (2b).

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[1] See Kroeger (1993), and Hsieh (2020) for relevant discussions.

(2) a. Nag-luto   ng   pagkain si   Maria, at saka nag-hugas   ng   mga pinggan *pro*.

          AV.PFV-cook Gen   food   Nom Maria and then AV.PFV-wash Gen PL   dish

          'Maria cooked food, and then (she) washed dishes.'

     b. Nang-huhuli si   Maria ng   daga at nag-bibili   *pro* si   Marco

          AV.PFV-catch Nom Maria Gen   rat   and AV.PFV-sell   Nom Marco.

          'Maria catches rats, and Marco sells (them).'   (Sabbagh 2008: 508)

The second conjunct in (2a) is accepted regardless of the phonologically null subject as the null subject is understood to be Maria. In (2b), the null object is interpreted as the rats which Maria catches. On the basis of these data, Kroeger (1993) claimed that Tagalog is a *pro*-drop language.

    The syntactic phenomena in Tagalog are similar to Japanese, with the main evidence of this similarity being the freedom to phonologically drop arguments. It is widely known that Japanese is also a *pro*-drop language (Kuroda 1965, Oku 1998, Sakamoto 2017).

(3) a. Taro-wa   asagohan-o   tukut-ta, sosite *pro* osara-o   arat-ta.

          Taro-Top   breakfast-Acc bake-Pst and   dish-Acc   wash-Pst

          'Taro cooked breakfast and (he) washed dishes.'

     b. Taro-wa   neko-o   tukamae-ta, Bill-wa *pro* ut-ta.

          Taro-Top   cat-Acc   catch-Pst   Bill-also   sell-Pst

          'Taro caught a cat and Bill also sold (it).'

Even if the subject in (3a) is phonologically null, the null subject can be understood as Taro. The second sentence in(3b) has a null object, which refers to the cat. According to previous research, when someone utters a sentence that includes a null argument, the interpretation of the null argument can become much richer than what is uttered. In the next section, previous studies on null arguments in Japanese and Tagalog are introduced and a major approach to null arguments is discussed.

2. Previous Studies on Argument Ellipsis

2.1. Japanese

    Japanese is well-known as a language in which objects can be dropped. (4a) is the antecedent sentence for (4b), which is acceptable even if the object is dropped. (4b) is ambiguous as the null object can be understood as Taro's car (strict reading) or Hanako's car (sloppy reading).

(4) a. Taro-wa zibun-no kuruma-o arat-ta.

          Taro-Top self-Gen car-Acc   wash-Pst

          'Taro washed self's car.'

     b. Ziro-wa [e] arawa-nakat-ta.

          Ziro-Top   wash-Neg-Pst

Lit. 'Ziro didn't wash [e].'   (strict / sloppy)

    c.   Hanako-wa   sore-o arawa-nakat-ta.

          Hanako-Top   it-Acc wash-Neg-Pst

          'Hanako didn't wash it.'   (strict / *sloppy)

(5)   a.   Ziro-Top *pro* wash-Neg-Pst.   (traditional-approach)

       b.   Ziro-Top [self-Gen car-Acc] wash-Neg-Pst.   (deletion-approach)

The traditional approach to null Japanese arguments claims that they are always empty pronouns (*pro*), as in (5a) (Kuroda 1965). However, many researchers (Otani and Whitman 1991, Oku 1998, Saito 2007, Takahashi 2008, Sakamoto 2017) have pointed out that (4b) would only have strict reading under a traditional approach because pronouns cannot yield a sloppy reading, as shown in (4c). Many researchers have therefore proposed an alternative analysis that sloppy readings must be derived from ellipsis, that is, they assume that a sloppy reading is permitted by the ellipsis of the noun phrase *zibun-no kuruma* 'self's car,' as illustrated in (5b).

Sloppy reading is also available in other environments. Shinohara (2006) and Saito (2007) claimed that a sloppy reading could be seen when the argument ellipsis is applied to a CP, and Saito (2007) and Oku (2016) showed that the null PP also allowed for a sloppy reading.

(6)   null CP

    a.   Taro-wa [zibun-no hahaoya-ga Saki-ni att-ta   to] omottei-ru

        Taro-Top self-Gen mother-Nom Saki-Dat meet-Pst C   think-Pres

        'Taro thinks that his mother met Saki.

    b.   Ziro-wa [e] omottei-na-i

        Ziro-Top   think-Neg-Pres

        Lit: Ziro does not think [e].'   (strict / sloppy)

(7)   null PP

    a.   Taro-wa [zibun-no manshon-ni]   sundei-ru

        Taro-Top self-Gen apartment-Dat   live-Pres

        'Taro lives in his apartment.'

    b.   Ziro-wa [e] sundei-na-i

        Ziro-Top   live-Neg-Pres

        Lit: 'Ziro does not live [e].'   (strict / sloppy)

The sentences in (6b) and (7b) are respectively acceptable even if the embedded CP and PP are missing. (6b) is ambiguous as the null CP can be interpreted as either "Taro's mother met Saki (strict reading)" or "Ziro's mother met Saki (sloppy reading)." This ambiguity can also be observed in the null PP in (7b), which can be understood as being in Taro's (strict reading) or Ziro's apartment (sloppy reading),

with the availability of the sloppy reading being attributed to the deletion of the embedded CP and PP.

The above data raises the question as to whether any phrases in Japanese could be deleted. Some studies have demonstrated that adjuncts in Japanese cannot be deleted (Oku 1998, Takahashi 2008).

(8) a. Taro-wa [zibun-no houhou-de] kat-ta.
          Taro-Top self-Gen way-in   win-Pst
          'Taro won in his way.'
      b. Ziro-wa [e] make-ta.
          Ziro-Top   lose-Pst
          Lit: 'Ziro lost [e].'   (*adjunct reading)

When adjuncts such as manner adverbs (e.g., in his way) are not pronounced, the adjunct reading that Ziro lost in Ziro's way is unavailable, as in (8b). If deletion is applied to the adjuncts, an adjunct reading would be possible. Oku (1998) first claimed that only arguments are eligible for deletion in Japanese and proposed *argument ellipsis* (Oku 1998, Saito 2007, Takahashi 2008, Sakamoto 2017).

2.2. Tagalog

It has been observed that a sloppy reading of a null argument is possible in Tagalog (Richards 2003, Otani 2021).

(9) S<in>untok-ϕ ni   Mike [ang anak niya], pero hindi s<in>untok-ϕ ni   Mary [e].
     <PFV>hit-PV Gen Mike Ang child his   but   not <PFV>hit-PV Gen Mary
     Lit. 'Mike hit his child, but Mary didn't [e].   (strict / sloppy)

The object *ang anak niya* 'his child' in the second conjunct in (9) is missing, yielding a sloppy reading. The availability of the sloppy reading suggests that the null object is derived from deletion. Some previous studies on the deletion phenomena in Tagalog have assumed that the sloppy reading must be derived from the V-stranding VP-Ellipsis (VVPE) (Richards 2003, a.o.). However, based on two syntactic tests, Otani (2021) showed that argument ellipsis is available in Tagalog. First, Goldberg (2005) showed that VVPE is possible in V-stranding languages only when the verb in an antecedent sentence is identical to the verb in the elliptical sentence. However, this type of ellipsis becomes impossible if different verbs are used in these sentences. Otani (2021) gave an example which showed that a sloppy reading of the null object is accessible even when different verbs are used between the antecedent and elliptical sentences.

(10) P<in>agalitan-ϕ ni   Mike ang   estudyante niya, pero p<in>uri-ϕ ni   Tom [e].
      <PFV>scold-PV Gen Mike Ang   student   his, but <PFV>praise-PV Gen Tom
      Lit. 'Mike scolded his student, but Tom praised [e].   (strict / sloppy)

If VVPE were the only approach to null arguments in Tagalog, the sloppy reading of (10) would be impossible. The availability of a sloppy reading even when different verbs are used as in (10) could indicate that argument ellipsis is available in Tagalog. Second, examining whether an adjunct ellipsis is possible can be useful in judging the accessibility of argument ellipsis. While it is assumed that adjuncts can be deleted under VVPE when another VP-internal element is also deleted (Funakoshi 2016), argument ellipsis expects that no adjuncts can be included in ellipsis sites because the elliptic candidate can only be an argument. Otani (2021) claimed that adjunct ellipsis is impossible in Tagalog, as illustrated in (11).[2]

(11)   h<in>ugasan-ϕ ni   Mike [ang kotse niya nang   madali], pero hindi h<in>ugasan-ϕ
         <PFV>wash-PV Gen Mike Ang car   his   NANG quickly   but   not   <PFV>wash-PV
         ni   Tom [e].
         Gen Tom
         Lit. 'Mike washed his car quickly, but Tom didn't wash [e].'

(12)   a.   Tom didn't wash his car at all.
         b.   *Tom didn't wash his car quickly.   (adjunct reading)

In (11), the object and adjunct in the second conjunct are deleted. If the null object and adjunct were derived from VVPE, the reading that Tom didn't wash his car quickly would be available in (11). The unavailability of an adjunct reading of a null element supports the presence of argument ellipsis in Tagalog. Therefore, it could be said that argument ellipsis is accessible in Japanese and Tagalog. Given that argument ellipsis can apply to both the CP and PP in Japanese, it would be expected that these phrases could also be deleted in Tagalog. In the next section, it is shown that CPs are eligible for argument ellipsis, but the deletion of PPs is not possible. It is surmised that the impossibility of PP-deletion is because they are adjunct-like arguments.

3. More Data on Argument Ellipsis in Tagalog

In this section, data for the deletion of a CP and PP is shown to investigate whether the above prediction is borne out. First, the data for CP-deletion is considered. In Tagalog, *na* can be a marker for a CP as in (13).

(13)   S<in>abi-ϕ ni   Tom₁ [CP na k<um>ain   ng   pansit sa kusina   ang kanyang₁ ina].
         <PFV>say-PV Gen Tom   LK <AV.PFV>eat Gen noodle in kitchen Ang his   mother
         'Tom₁ said that his₁ mother ate some noodles in the kitchen.'

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[2]In this study, I examined (11) with three native speakers of Tagalog; one found the adjunct reading of the null element possible but marginal, and the other two said it was impossible. I noted that all accepted the reading that Tom did not wash his car at all.

Na has been considered the Tagalog counterpart to the English complementizer *that* because it appears in the CP complements of bridge verbs such as *sabi* 'say' (Richards 1999). Using (13), the data for CP-deletion is shown.

(14) S<in>abi-ϕ ni Tom$_1$ [$_{CP}$ na k<um>ain   ng   pansit sa kusina ang kanyang$_1$ ina],
      <PFV>say-PV Gen Tom   LK <AV.PFV>eat Gen noodle in kitchen Ang his   mother
      pero hindi S<in>abi-ϕ ni   Bill$_2$ [e].
      but   not   <PFV>say-PV   Gen Bill
      Lit: 'Tom said that his mother ate some noodles in the kitchen, but Bill$_2$ didn't say [e].'
                                                                                (strict / sloppy)

The null CP in the second conjunct in (14) is dropped, permitting a sloppy reading that Bill's mother ate some noodles in the kitchen. The possibility of a sloppy reading implies that the null CP is created via deletion. If it is assumed that the complement CP is an argument of the bridge verb, this clearly explains the availability of a sloppy reading for null CPs under an argument ellipsis.

Next, the possibility of PP-deletion is investigated using two PPs; benefactive PPs (e.g., *para*) (Rackowski 2002, Sabbagh 2008) and goal PPs (e.g., Sa/Kay-NP) (Hsieh 2020).[3] The benefactive PP and the goal PP used in this paper are respectively illustrated in (15) and (16).

(15) Ni-luto-ϕ ni Tom$_1$ ang adobo [$_{PP}$ para sa kanyang$_1$ nobya]
      PFV-cook-PV Gen Tom Ang adobo   for Obl his   girlfriend
      'Tom cooked adobo for his girlfriend.'   (Benefactive PPs)

(16) Nag-bigay   ng   bulaklak si   Tom$_1$ [$_{PP}$ sa kanyang$_1$ ina]
      AV.PFV-give Gen flower   Ang Tom   Obl his   mother
      'Tom gave a flower to his mother.'   (Goal PPs)

Para in (15) is the Tagalog counterpart for the English preposition *for*, *Sa* can be used to represent various meanings, such as a goal, a location, and a possessor, and *Sa* in (16) can be a signal for a goal PP. The deletion data for a benefactive PP and a goal PP are respectively shown in (17) and (18).

(17) Ni-luto-ϕ ni Tom$_1$ ang adobo [$_{PP}$ para sa kanyang$_1$ nobya]   at   h<in>ugasan-ϕ
      PFV-cook-PV Gen Tom Ang adobo   for Obl his   girlfriend and <PFV>wash-PV
      ni   Bill ang   mga pinggan [e] .
      Gen Bill Ang PL   dish
      Lit: 'Tom cooked adobo for his girlfriend and Bill washed the dished [e].'   (*sloppy)

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[3]I only examined whether benefactive PPs and goal PPs could be deleted in this paper. Other PPs such as locative PPs and temporal PPs need to be investigated in future research.

(18)   Nag-bigay   ng   bulaklak si   Tom$_1$ [$_{PP}$ sa kanyang$_1$ ina]   at   nag-padala   ng   regalo
AV.PFV-give Gen flower   Ang Tom   Obl his   mother and AV.PFV-send Gen present
si   Bill$_2$ [e].
Ang Bill
Lit: 'Tom gave a flower to his mother and Bill sent a present [e].'   (*sloppy)

These examples show that the null PPs in both (17) and (18) do not allow for a sloppy reading. If argument ellipsis are applied to these two PPs, then the sloppy reading would be available in (17) and (18). The unacceptability of the sloppy reading indicates that deletion is impossible in the two PPs. Therefore, the prediction that PP-deletion is possible in Tagalog is not borne out.

While there is not yet a concrete explanation as to why argument ellipsis does not apply to PPs in Tagalog, the following offers a suggestion. Based on the following data in which the PPs in Tagalog behave in the same way as adjuncts such as manner adverbs in Japanese, it could be suggested that PPs in Tagalog could be adjunct-like elements. This suggestion is supported by the distribution of *pro* because *pro* in Tagalog cannot be used for PPs.

(19)   a.   Ni-luto-ϕ ni   Pedro ang pagkain [$_{PP}$ para kay Maria] at   h<in>ugasan-ϕ niya
PFV-cook-PV Gen Pedro Ang food   for   Obl Maria and <PFV>wash-PV   he
ang   mga pinggan [e].
Ang PL dish
'Pedro bought food for Maria and washed the dishes (* for Maria).'
b.   Nag-bigay   ng regalo si   Maria [$_{PP}$ kay Juan] at nag-padala   ng liham
AV.PFV-give Gen present Ang Maria   Obl Juan and AV.PFV-send Gen letter
ang   mga bata [e].
Ang   PL child
'Maria gave a present to Juan, and the children sent a letter (* to Juan).'
                                                     (Sabbagh 2008: 508)

The benefactive PP (*para kay Maria* 'for Maria') and the goal PP (*kay Juan* 'to Juan') are respectively missing in the second conjuncts in (19a) and (19b). In both examples, the interpretation of the second conjuncts does not include the meaning for the PPs. Based on the above data, Sabbagh (2008) concluded that the appearance of *pro* in Tagalog is impossible in PPs.

Keeping this in mind, since Kuno (1973), it has been acknowledged that the relative clause in Japanese lacks subjacency effects. Murasugi (1991) explained that the absence of subjacency effects was because of the appearance of *pro* in a gap in the relative clause. Murasugi (1991) then showed that *pro* can occur in both argument DPs, as in (20), and in PPs, as in (21).

(20) [[*pro*₁ kite-iru] yoohuku]-ga yogorete-iru] sinsii₁

       wearing-Pres suit -Nom dirty-Pres gentleman

      'the gentleman who the suit that he is wearing is dirty' (Kuno 1973: 239)

(21) [Bob-ga [[*pro*₁ sunde-iru] hito-o] sitte-iru] tosi₁

      Bob-Nom live-Pres person-Acc know-Pres city

      'The city that Bob knows a person who lives in it'

Murasugi (1991) demonstrated that *pro* cannot be used for adjuncts such as reason adjuncts, as in (22).

(22) *[Bob-ga [[*pro*₁ kubininat-ta] hito-o] sitte-iru] riyuu₁

      Bob-Nom be.fired-Pst person-Acc know-Pres reason

      'The reason that Bob knows a person who was fired for it.'

The example is unable to describe the reason why the person was fired, which indicates that *pro* cannot appear in a reason adjunct. Therefore, Murasugi (1991) concluded that *pro* can only appear in an argument position.

Murasugi's (1991) conclusion suggests that PPs in Tagalog are adjunct-like elements because *pro* in Tagalog cannot appear in benefactive PPs or goal PPs. If this is correct, the argument ellipsis approach clearly explains why the deletion of PPs is impossible as argument ellipsis only targets arguments.

Further evidence to support this assumption is given in the construction of wh-questions in Tagalog. Some researchers have shown that there is a clear contrast between argument wh-questions and adjunct wh-questions in Tagalog (Hsieh 2020, a.o.) and have argued that argument wh-questions and adjunct wh-questions have different structures.

(23) Sino [RC ang ni-luto-ϕ ng sisig]?

      Who Ang PFV-cook-PV Gen sisig

      'What cooked sisig?' (argument-question)

(24) Ano [RC ang Nag-luto ni Tom]?

      What Ang AV.PFV-cook Gen Tom

      'What did Tom cook?' (argument-question)

(25) Bakit₁ (* ang) ni-luto-ϕ ni Tom ang adobo t₁?

      why Ang PFV-cook-PV Gen Tom Ang adobo

      'Why did Tom cook sisig?' (adjunct-question)

The argument wh-questions are derived via pseudoclefts, where an argument wh-phrase is in the predicate position and the rest of the clause is a headless relative clause. In contrast, adjunct questions are created via wh-movement, where an adjunct wh-phrase overtly moves to a sentence-initial position.

One of the clearest distinctions between the two wh-questions is the presence or absence of the particle *ang*.[4] In argument wh-questions, the particle *ang* must appear between a sentence-initial wh-phrase and the remainder of the clause, as in (23) and (24), and in adjunct wh-questions, the particle must not intervene between them, as in (25). With this in mind, consider the data for wh-questions for benefactive and goal PPs.

(26) [Para kanino]$_1$ (* ang) ni-luto-ϕ ni Tom ang   adobo t$_1$?
        For whom   Ang   PFV-cook-PV Gen Tom Ang   adobo
        'Who did Tom cook sisig for?'   (Benefactive PPs)

(27) Kanino$_1$ (* ang)   nag-bigay   ng bulaklak si Tom t$_1$?
        To.whom   Ang   AV.PFV-give Gen flower   Ang Tom
        'Who did Tom give a flower to?'   (Goal PPs)

In both examples, it is clear that *ang* cannot occur between the wh-phrase and the rest of the clause. This impossible presence of *ang* reveals that the wh-question form for the two PPs is adjunct wh-questions. The parallelism between the adjuncts and the PPs for these wh-questions supports my suggestion that benefactive PPs and goal PPs in Tagalog are adjunct-like elements.

4. Concluding Remarks

This paper provided additional evidence to support Otani (2021) by showing that CP-deletion is possible in Tagalog but PP-deletion is not. If the PPs in Tagalog are "genuine" arguments, such as direct objects, the impossibility of PP-deletion is not expected under the argument ellipsis theory. To explain this conundrum, it was suggested that the PPs are adjunct-like elements, which is supported by the impossibility of the appearance of *pro* in the PPs and by the parallelism between the adjuncts and PPs in the wh-questions. Therefore, if the PPs are adjunct-like elements, the unavailability of PP-deletion should no longer be problematic in the theory of argument ellipsis.

If this suggestion is plausible, it is clear that the properties of Japanese and Tagalog PPs are different. As shown, Japanese PPs are arguments because argument ellipsis is applicable to these PPs and *pro* can appear in the positions in these phrases. However, a concrete analysis of why Tagalog PPs appear to be adjuncts needs further research.

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[4]I will not delve further into the differences between argument wh-questions and adjunct wh-questions here, since this is beyond the scope of this paper. In this paper, the discussion of the presence or absence of *ang* in the two kinds of wh-questions is examined. See Hsieh (2020) for the relevant discussion.

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