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**DOES SUNDANESE HAVE PROLEPSIS  
AND/OR RAISING TO OBJECT CONSTRUCTIONS?**

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*The Proceedings of AFLA 18*

PREFACE

The 18<sup>th</sup> annual meeting of the Austronesian Formal Linguistics Association (AFLA 18) was held March 4-6, 2011, at Harvard University. A total of 30 presentations representing the work of 43 researchers were given, including three plenary talks by Robert Blust, Marc Brunelle, and Manfred Krifka. In addition to work on the syntax of Austronesian languages, the original focus of AFLA, researchers presented analyses of phenomena from a variety of core linguistics subfields including phonetics, phonology, and semantics, as well as their interfaces. In order to personalize the meeting and highlight the strong historical component of Harvard's Department of Linguistics, we also encouraged the presentation of work dealing with diachronic analyses of language phenomena. The culmination of these efforts appears here in these Conference Proceedings, which include twelve papers presented during the conference.

Throughout this process we have received generous support from a variety of sources within the Harvard Community. Financial support came from the Office of the Dean of the Faculty of Arts and Sciences, the Office of the Provost, Linguistics Circle: A Workshop of Linguistic Interfaces, the GSAS Research Workshop in Indo-European and Historical Linguistics, the GSAS Research Workshop in Language Universals and Linguistic Fieldwork, and the Harvard GSAS Graduate Student Council. Student participants in the volunteer effort include Michael Erlewine, Ruthe Foushee, Laura Grestenberger, Christopher Hopper, Julie Li Jiang, Caitlin Keenan, Louis Liu, Andreea Nicolae, Hazel Pearson, and Cheng-Yu Edwin Tsai. We also gratefully acknowledge the encouragement, endorsement, and assistance of the Harvard Department of Linguistics.

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To the groups and individuals who made this conference possible, and to the many researchers who made the event as enriching and stimulating as it was, we offer our sincerest thanks.

Lauren Eby Clemens, Gregory Scontras and Maria Polinsky, Harvard University

## DOES SUNDANESE HAVE PROLEPSIS AND/OR RAISING TO OBJECT CONSTRUCTIONS?<sup>□</sup>

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### 1. Background

A sentence such as (1) has thus far sparked a great deal of theoretical controversies. In particular, the status of the intermediary DP such as *Ahmad* is subject to debate.<sup>2</sup>

- (1) Abah            ng-anggap    Ahmad    indit    ka kota.  
grandfather    AV-assume    A.        go        to town  
'The grandfather assumed Ahmad to have gone to town.'

In the absence of outward finite markers in the complement clauses in Indonesian-type languages, this particular structure has received particularly three contested analyses: the Raising to Object analysis (Indonesian by Chung 1976, Javanese by Davies 1990, Balinese by Wechsler & Arka 1998), the Exceptional Case Marking analysis (Indonesian by Kim, Sim and Tjung 2002) and the Prolepsis analysis (Madurese by Davies 2000, 2004, 2005). The controversy centers on whether *Ahmad* serves as the subject of the complement clause or the object of the matrix clause. Therefore, it is an empirical question whether or not Sundanese mirrors the facts reported for Indonesian or Madurese and which analysis would naturally account for the facts in question.

The goal of this paper is two-fold: (i) to investigate whether Raising to Object constructions (henceforth RtoO) and prolepsis are isomorphic in Sundanese; and (ii) to propose an analysis for the structural distinctions between raising and prolepsis if the two constructions should be kept distinct in Sundanese.

The paper is organized as follows. In section 2, I set the scene by laying out a brief overview of Sundanese morphosyntax. Then, in section 3, I review some theoretical properties regarding raising and prolepsis, which essentially encompass various traditional diagnostics to distinguish each construction. Afterwards, I employ the diagnostics to assess if the raising and prolepsis are isomorphic or distinct in Sundanese. I show that raising and prolepsis are two

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<sup>□</sup> Sundanese is one of the many indigenous languages predominantly spoken in the west part of Java, Indonesia. It has some 27 million speakers, making it the third most spoken language in Indonesia, after Indonesian and Javanese.

<sup>2</sup> The abbreviations used in the glosses are: AV: actor voice, PV: passive voice, SING: singular, PL: plural, COMP: Complementizer, REL: relativizer, PAR: particle, DEM: demonstrative, DEF: definite, PROG: progressive, FUT: future, PERF: perfect, RED: reduplication, APPL: applicative.

disparate entities in Sundanese. In section 4, I posit an analysis to account for the syntactic distinction between the two constructions. In section 5, I present conclusions.

## 2. Sundanese Morphosyntax

Before proceeding to the analysis, a few words need to be said about Sundanese in order to better understand its structure. First, Sundanese is a predominantly SVO language, like any other Indonesian-type languages such as Indonesian, Javanese and Madurese, where the subject is in pre-verbal position and the object, if any, is in post-verbal position.

- (2) Hasan nitah            Ahmad    meuli    hayam.  
       H.    AV.order    A.            AV-buy    chicken  
       ‘Hasan ordered Ahmad to buy a chicken.’

Second, there is neither case nor overt tense morphology in this language as shown in (2). The matrix clause *nitah* (‘order’) has the identical form as the embedded verb *meuli* (‘buy’). It is, therefore, difficult to determine whether the embedded predicate is finite or not.

Another property of Sundanese is that it exhibits voice marking. Actor voice (AV) morphology typically occurs when the agent of the transitive verb is in the subject position as in (3).<sup>3</sup> AV is marked by a homorganic nasal prefix. Meanwhile, object voice (OV) is essentially what is often referred to as passive voice. For convenience, I will use passive voice (PV) to denote object voice in Sundanese structures throughout the discussion. PV is morphologically marked by the prefix *di-*.

- (3) Ahmad    miceun            sapatu.  
       A.            AV.throw        shoes  
       ‘Ahmad threw the shoes away.’
- (4) Sapatu    di-piceun        (ku)    Ahmad.  
       shoes    PV-throw        by    A.  
       ‘The shoes were thrown away by Ahmad.’

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<sup>3</sup> Apparently, AV can also be readily observed in intransitives (a), ditransitives (b), and transitives with patient subjects (c).

- a. Ahmad    geus    nepi            ka Garut.  
       A.            PERF    AV.arrive    to Garut  
       ‘Ahmad has arrived in Garut.’
- b. Ahmad    neundeun    baju-na            dina    koper.  
       A.            AV.put            clothes-DEF    in        luggage  
       ‘Ahmad put his clothes in the luggage.’
- c. Ahmad    pada    néang-an.  
       A.            PART    AV.seek-AN  
       ‘(People) are seeking for Ahmad.’

It should be noted that the grammatical subject in (a, c) semantically bears a theme/patient role. Yet the verb is AV-marked. It seems to me that we need to disjoint the connection between the AV marking and the thematic realization of the grammatical subject in Sundanese.

Given these facts, in the absence of a complementizer, it is sometimes difficult to ascertain whether a DP such as *Ahmad* in (1) belongs to the matrix clause or embedded clause. Note that *yén* is optional in this type of structure. When *yén*<sup>4</sup> intercedes between the matrix verb and *Ahmad* (5), *Ahmad* clearly is the embedded subject. When *yén* is left out (6), however, *Ahmad* is structurally ambiguous. It could be matrix-dependent or the embedded subject.

(5) Hasan ng-anggap yén Ahmad meuli hayam.  
 H. AV-assume COMP A. AV.buy chicken  
 ‘Hasan thought that Ahmad had bought a chicken.’

(6) Hasan ng-anggap Ahmad meuli hayam.  
 H. AV-assume A. AV.buy chicken  
 ‘Hasan thought (that) Ahmad had bought a chicken’  
 or ‘Hasan thought Ahmad to have bought a chicken.’

As is apparent from the English translations, the complement clause of (6) could be a regular complement clause or a raising complement clause.

One way of disambiguating the construction is by passivizing the matrix clause or using the passive voice form of the matrix predicate. If *Ahmad* can raise to the subject position in the matrix clause, *Ahmad* is then undoubtedly a matrix dependent. Sentence (7) shows this strategy works neatly for the Sundanese structure.

(7) Ahmad di-sangka (ku) Hasan meuli hayam.  
 A. PV-assume by H. AV-buy chicken  
 ‘Ahmad was thought by Hasan to have bought a chicken.’

*Ahmad* moves from the embedded subject position to the matrix subject position, as signaled by the passive voice verb in the matrix clause. Thus, it is now safe to assume that *Ahmad* in (7) is unarguably in the matrix clause. However, in the lack of an overt complementizer and passive matrix verb, the status of intermediary DPs in Sundanese structures remains difficult to pin down.

### 3. Prolepsis versus Raising

In this section, I will employ Davies’s diagnostics to ascertain if Sundanese exemplifies the so-called proleptic construction. If so, I will then evaluate whether Sundanese prolepsis is necessarily different RtoO by weighing the commonalities and differences between the two.

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<sup>4</sup>The letter *é* in the Sundanese orthography represents the tensed mid front unrounded vowel, which is vastly different from the regular *e* that is an orthographic symbol for a schwa. And the vowel sequence *eu* as in *meuli* (‘buy’) represents a lax central unrounded vowel, which is articulatorily produced higher than the schwa.

3.1. What is Prolepsis?

Prolepsis can be defined as a construction in which a base-generated non-thematic object in the matrix clause binds a thematic argument in the embedded clause (Gonda 1958, Higgins 1981, Flegg and Paul 2002). Observe the following example from English.

(8) I believe about Kim that he just left the country.

The nonthematic object *Kim* is base-generated in the matrix clause and it anticipates the referent of that object, i.e. the pronominal *he*, which is the embedded subject.

Davies and Dubinsky (2004) point out that prolepsis analyses have been proposed for a wide range of languages, which include Greek (Ingria 1981, Kotzoglou 2002), Korean (Song 1994), Japanese (Saito 1985, Oka 1988, Hoji 1991, Takano 2003), Malagasy (Flegg & Paul 2002), and others. Davies himself (2000, 2004, 2005) has proposed a prolepsis analysis for Madurese constructions such as (9), which he believes share a large number of properties as the corresponding English sentence (8).

(9) Hasan ngera            Siti    ja'            aba'eng    melle    motor.  
H.    AV.think        S.    COMP    she        AV.buy    car  
'Hasan thinks Siti bought a car.'  
Lit: 'Hasan thinks about Siti that she bought a car.'

Davies calls into question the RtoO (or Exceptional Case Marking) analysis that has been hitherto proposed for Indonesian-type languages (Indonesian by Chung 1976, Javanese by Davies 1990, Balinese by Wechsler & Arka 1998, and others). He reveals that the raising analysis faces severe challenges and concludes that it is less convincing than the proleptic one. He then suggests that the purported RtoO constructions in Madurese should best be analyzed as proleptic NP constructions.

Davies lays out various distinctive characteristics of Madurese proleptic constructions as the following.

- (10) a. Lack of thematic identity of the sentences with the DP in the matrix clause and those with the DP in the embedded clause.
- b. The DP in the matrix clause needs not be the subject of the complement clause.
- c. Embedded idioms lose their idiomatic interpretation with the DP in the matrix clause.
- d. In certain instances, adverbial clauses may participate.
- e. The construction includes all predicates that take 'finite' complements, not a circumscribed set of predicates.
- f. The construction is immune to island conditions.

Davies acknowledges that the above-mentioned characteristics, except (a), do not necessarily provide counterarguments for a raising analysis for the Madurese structure, since many of these properties have been reported in a variety of languages for which a raising analysis has been proposed. It is, nonetheless, unusual that one language exhibits all of these properties. Hence, it

seems more justifiable to assume that the properties as a group may be the defining characteristics of proleptic DP constructions.

Ultimately, Davies raises one implicational concern; that is, when prolepsis is attested in a language, it does not necessarily preclude RtoO constructions. The fact that a grammar of a language recognizes prolepsis does not in and of itself prove there is no RtoO. English, for instance, is language in which its grammar recognizes both prolepsis and RtoO.

Moreover, there are obvious differences between the two constructions in questions, as exhibited in the table below.

(11)	Properties	Prolepsis	RtoO
	Thematic identity when DP is in complement and in matrix	No	Yes
	Matrix DP must be complement subject	No	Yes
	Idioms retain idiomatic meaning	No	Yes
	Embedded argument may be in adverbial clause	Yes	No
	All predicates taking finite complements allow structure	Yes	No
	Immunity to island conditions	Yes	No

It is immediately clear from the table that prolepsis and RtoO constructions in English grammar should be disparate. This is the line of reasoning that I will pursue in investigating the corresponding constructions in Sundanese. I will utilize most of the properties in (11) to determine whether Sundanese instantiates proleptic constructions and if it does, I will examine if RtoO constructions and proleptic constructions are isomorphic or not.

### 3.2. Prolepsis in Sundanese

There are some pertinent facts which demonstrate that prolepsis is also observed in Sundanese, in addition to raising. First, a pronoun coreferential with the “raised” DP can occur in the embedded clause. This is what is usually referred to as “Copy Raising”. In Copy Raising, a single thematic role apparently corresponds to two different DPs, a non-thematic one in the matrix clause and the thematic pronominal copy in the embedded clause (Potsdam & Runner 2001). In what follows, the raised element is coindexed with the pronominal *manéhna* in the embedded clause.

- (12) Siti ng-omong-keun Hasan<sub>i</sub> yén anak-na bupati bogoh kamanéhna<sub>i</sub>.  
 S. AV-talk-APPL H. COMP child-DEF major love to him  
 ‘Siti talked about Hasan that the major’s daughter loves him.’
- (13) Ahmad nyarita-keun Hasan<sub>i</sub> yén paraji rék mariksa  
 A. AV.talk-APPL H. COMP midwife FUT AV.examine  
 pamajikan manéhna<sub>i</sub>  
 wife he  
 ‘Ahmad talked about Hasan<sub>i</sub> that the midwife will examine his<sub>i</sub> wife.’

In (12) the “raised” DP is coreferential with the embedded object pronoun, and in (13) the DP is coreferential with the embedded possessive pronoun. Copy Raising does not seem to be a viable



analysis in this regard, since it has been argued to involve coindexation with only the embedded subjects (Postdam & Runner 2001). Proleptic analysis, on the other hand, imposes no restriction in regards to coindexation.

Furthermore, the fact that there is no restriction on what type of constituent of the lower clause is coindexed with the nonthematic matrix DP troubles the raising analysis. In fact, I argue that there is no evidence of raising in the data at hand. The purportedly “raised” DP is apparently base-generated in the matrix clause and it obligatorily corefers with and binds some element in the embedded clause, which is at the heart of prolepsis.

Second, the “raised” DP can corefer with an element inside an island. For instance, the “raised DP” refers to an element inside a conjoined structure, as (14) illustrates. In that case, the “raised” DP, *Hasan*, is coindexed with the possessor of the second DP of the conjoined structure. The sentence can be rendered ungrammatical when the trace of the raised DP is occupied by another DP, i.e. *Siti*. This provides converging evidence for the obligatory coreference between the matrix DP and the position in the coordinate structure.

- (14) Ahmad nyarita-keun Hasan<sub>i</sub> yén kamari tukang pos ngirim  
 A. AV.tell-APPL H. COMP yesterday laborer post AV.send  
 pakét ka masjid jeung ka imah-na<sub>i</sub> (\*Siti).  
 package to mosque and to house-DEF  
 ‘Ahmad told about Hasan<sub>i</sub> that yesterday a mail officer sent a package to the mosque and his<sub>i</sub> house.’

Additionally, the “raised” DP, i.e. *Hasan*, can be coreferential with the pronoun inside a complex DP, i.e. *lalaki nu neunggeul manéhna* (‘the man who bit him’) (15).

- (15) Ahmad nyebut-keun Hasan<sub>i</sub> yén kamari pulisi geus néwak  
 A. AV.mention-APPL H. COMP yesterday police PERF AV-capture  
 lalaki nu nenggeul manéhna<sub>i</sub>.  
 man REL AV-beat him  
 ‘Ahmad mentioned about Hasan<sub>i</sub> that yesterday the police had captured a man who bit him<sub>i</sub>.’

The presence of another DP, i.e. *bupati* (‘major’), within the complex DP renders the sentence ill-formed (16).

- (16) \*Ahmad nyebut-keun Hasan yén kamari pulisi geus néwak  
 A. AV.mention-APPL H. COMP yesterday police PERF AV-capture  
 lalaki nu nenggeul bupati.  
 man REL AV-beat major  
 ‘Ahmad mentioned about Hasan<sub>i</sub> that yesterday the police had captured a man who bit the major.’

Thus, the fact that Sundanese data exhibit immunity to coordinate structure constraint and the complex DP constraint (Ross 1967) offers an additional compelling piece of evidence for the existence of proleptic constructions.

The other defining property for the prolepsis analysis is the fact that the embedded DP occurring in the matrix clause can also occur as a prepositional matrix object. The proleptic sentence (17) and the one with the prepositional matrix object (18) are thematically analogous.

- (17) Hasan nyarita-keun Siti<sub>i</sub> yén manéhna<sub>i</sub> embungeun di-pariksa (ku)  
 H. AV.talk-APPL S. COMP she refuse PV-examine by  
 paraji  
 midwife  
 ‘Hasan told about Siti<sub>i</sub> that she<sub>i</sub> refused to be examined by the midwife.’

- (18) Hasan nyarita ngeunaan Siti<sub>i</sub> yén manéhna<sub>i</sub> embungeun di-pariksa  
 H. AV.talk about S. COMP she refuse PV-examine  
 (ku) paraji  
 by midwife  
 ‘Hasan told about Siti<sub>i</sub> that she<sub>i</sub> refused to be examined by the midwife.’

Observe that the Sundanese proleptic construction above (17) bears a striking resemblance to the English (proleptic) translation in which the prepositional object in the matrix is obligatorily coindexed with the pronoun in the embedded clause. In both instances, the complementizer and the resumptive pronoun in the embedded clause are obligatory; thus the ungrammaticality of the following sentences is expected.

- (19) a. \*Hasan nyarita-keun Siti<sub>i</sub> manéhna<sub>i</sub> embungeun di-pariksa (ku)  
 H. AV.talk-APPL S. she refuse PV-examine by  
 paraji  
 midwife  
 ‘\*Hasan told about Siti<sub>i</sub> she<sub>i</sub> refused to be examined by the midwife.’  
 b. \*Hasan nyarita-keun Siti yén embungeun di-pariksa (ku) paraji  
 H. AV.talk-APPL S. COMP refuse PV-examine by midwife  
 ‘\*Hasan told about Siti<sub>i</sub> that refused to be examined by the midwife.’

However, when the complementizer and the pronominal both disappear, the sentence is perfectly well-formed.

- (20) Siti di-carita-keun (ku) Hasan embungeun di-pariksa (ku) paraji  
 S. PV-talk-APPL by H. refuse PV-examine by midwife  
 ‘Hasan told (that) Siti refused to be examined by the midwife.’

I will argue in the next sub-section that the structure in (20) basically instantiates RtoO, which is in a number of ways different from prolepsis.

### 3.3. Raising to Object

Unlike Davies's (2000, 2004, 2005) proposal for Madurese in which the purported RtoO constructions receive proleptic analysis, I will show that RtoO constructions in Sundanese exhibit some properties atypical of proleptic constructions, supporting a raising analysis of some structures.

The first property pertains to the fact that the raised DP is restricted to the embedded subject, which is the most typical characteristic of raising in the world's languages. When embedded non-subjects get moved, the sentence is ill-formed.

- (21) Acéng<sub>i</sub> di-anggap (ku) Enéng *pro*<sub>i</sub> kakara balik ti Iowa.  
 A. PV-assume by E. recently return from Iowa  
 'Aceng was assumed by Eneng to have recently returned from Iowa.'
- (22) \*Acéng<sub>i</sub> di-anggap (ku) Enéng treuk nabrak pamajikan<sub>i</sub>.  
 A. PV-assume by E. truck AV.run over wife  
 'Eneng assumed about Aceng<sub>i</sub> that the truck ran over his<sub>i</sub> wife.'
- (23) \*Acéng<sub>i</sub> di-anggap (ku) Enéng Ahmad nyéwa-keun mobil ka pamajikan<sub>i</sub>.  
 A. PV-assume by E. A. AV.rent-APPL car to wife  
 'Eneng assumed about Aceng<sub>i</sub> that Ahmad rent the car out to his<sub>i</sub> wife.'

The sentence is grammatical insofar as the matrix subject DP is raised from the embedded subject position (21). As a result, when the raised DP derives from the embedded object position, the sentence is rendered ungrammatical, as exhibited in (22-23).

The aforementioned data (21-23) are sufficient to suggest that RtoO does exist in Sundanese and its behavior unsurprisingly patterns in the same fashion as that of most languages such that the raised DP need not be a subject in the embedded clause.

Another property that would argue for the existence of RtoO is island phenomena. As noted earlier, prolepsis is immune to island effects; that is, the matrix DP can refer to some element in an island. RtoO constructions, conversely, evince island effects. It is illicit for the matrix DP to originate from the island, as illustrated in the following.

- (24) \*Hasan<sub>i</sub> di-carita-keun (ku) Ahmad kamari tukang pos ngirim  
 H. PV-tell-APPL by A. yesterday laborer post AV.send  
 pakét jang. Siti jeung pamajikan<sub>i</sub>  
 package for S. and wife  
 'Hasan<sub>i</sub> was told by Ahmad yesterday the mail officer sent a package for Siti and his<sub>i</sub> wife.'

- (25) \*Hasan<sub>i</sub> di-sebut-keun (ku) Ahmad kamari pulisi néwak  
 H. PV-mention-APPL by A. yesterday police AV.capture  
 lalaki nu neunggeul pamajikan<sub>i</sub>.  
 man REL AV.hit wife  
 ‘Hasan<sub>i</sub> was mentioned by Ahmad yesterday the police officer capture the man that hit his<sub>i</sub> wife.’

In (24-25) the matrix subject DP has raised from the coordinate structure and the complex NP structure to the matrix subject position, respectively. Both sentences exemplify island phenomena from which any movement is barred. Clearly, RtoO constructions as evident above are subject to island effects.

### 3.4. Other Distinguishing Properties of Raising and Prolepsis

There are some properties peculiar to Sundanese that could give rise to structural differences between raising and prolepsis constructions. All these properties pertain to what kind of element can appear in complement clauses such as complementizers and adverbs.

#### 3.4.1. ‘Complementizers’<sup>5</sup>

Raising and prolepsis constructions can be distinguished from each other by the use of an element or elements that appear to introduce the complement clauses. In raising, some of the predicates optionally take complement clauses prefaced by *jang*, which one might analyze as a complementizer by way of making a comparison to its analogue in Indonesian, i.e. *untuk*. This kind of comparison is actually unfounded, though, since the distribution of *jang* and *untuk* is comparatively not the same<sup>6</sup>.

- (26) Ujang di-percaya (ku) bapa (jang) ng-anteur-keun duit ka kota.  
 U. PV-believe by father to AV-send-APPL money to town  
 ‘Ujang was believed by the father to send the money to town.’
- (27) Ujang di-harep-keun (ku) bapa (jang) nga-wakilan kulawarga.  
 U. PV-expect-APPL by father to AV-represent family  
 ‘Ujang was expected by the father to represent the family.’

<sup>5</sup> This term is put in quotation marks since the elements that seemingly behave like complementizers, in that they precede complement clauses, are in fact not complementizers as they appear in the complement of raising and control predicates.

<sup>6</sup> Indonesian has this ‘complementizer’ *untuk* that typically heads both control and raising complements, as illustrated below.

- (i) Saya di-paksa untuk mengundurkan diri.  
 I PV-force to AV.back self  
 ‘I was forced to step down.’
- (ii) Saya di-percaya untuk memimpin organisasi ini.  
 I PV-believe to AV.lead organization DEM  
 ‘I was believed to lead this organization.’

On closer scrutiny, however, we will see that *jang* cannot co-occur with the ‘tensed’ auxiliaries, indicating that it competes for the same landing site with the auxiliaries.

- (28) Ujang di-percaya (ku) bapa jang (\*rék) ng-anteur-keun duit ka kota.  
 U. PV-believe by father to will AV-send-APPL money to town  
 ‘Ujang was believed by the father that he would send the money to town.’

Proleptic constructions, on the other hand, necessitate that the complementizer *yén* (‘that’) obligatorily occurs in the complement clause, making them readily distinguishable from raising constructions.

One of the arguments of analyzing *yén* as a complementizer is that its distribution behaves in the same way as the complementizer in the regular complement clauses.

- (29) Masarakat nyangka yén pulisi sigan néwak Ujang.  
 people AV.suspect COMP police possibly AV.capture U.  
 ‘The people suspected that the police officer had possibly captured Ujang.’

In particular, *yén* in the complement of proleptic constructions and the regular finite complement clauses evince no restriction on the placement of epistemic adverbs, which will be discussed further in the following sub-section.

### 3.4.2. Adverbs

Another distinguishing property of control, raising and prolepsis pertains to various types of adverbs that can appear in the complement clauses. This is particularly relevant in making a salient distinction between prolepsis, which obligatorily takes *yén*-clauses as its complement, and raising, which I will argue to have an embedded structure smaller than the proleptic complement.

The kind of adverbs that can successfully distinguish prolepsis from raising and control is an epistemic adverb such as *sigana* (‘possibly’) and *tangtuna* (‘certainly’).

- (30) Acéng di-omong-keun (ku) Siti yén manéhna sigana rék mungгах  
 A. PV-talk-APPL by S. COMP he possibly will go  
 haji.  
 pilgrimage  
 ‘Siti talked about Aceng that he would possibly go on pilgrimage.’

- (31) Acéng di-percaya (ku) Siti (\*sigana) rék mungгах haji.  
 A. PV-believe by S. possibly will go pilgrimage  
 ‘Aceng was believed to have possibly gone on pilgrimage.’

The only possible place where an epistemic adverb *sigana* can easily merge is in the proleptic complement (30). When the adverb occurs in the raising complement, the sentence is bad (31).

The behavior of proleptic complements with respect to its admissibility of epistemic adverbs mirrors that of regular complement clauses. Compare (30) and (32).

- (32) Acéng ng-omong yén Siti sigana rék munggah haji.  
 A. PV-talk COMP S. possibly will go pilgrimage  
 ‘Aceng said that Siti would possibly go on pilgrimage.’

In both cases, the complement clauses pattern together in that they permit the occurrence of epistemic adverbs. This offers yet more compelling evidence that *yén* in proleptic constructions is a true complementizer inasmuch as it shares the same properties with its analogue in the regular complement clauses.

#### 4. Analysis

As is true of English for which raising complements are argued to include a tense projection (henceforth TP), raising complements in Sundanese constitute a TP. Motivation comes from the occurrence of “tensed” auxiliaries in the raising complements. This proposal is further motivated by the fact that *jang* cannot co-occur with the “tensed” auxiliaries, as illustrated in (28), repeated below.

- (33) Ujang di-percaya (ku) bapa jang (\*rék) ng-anteur-keun duit ka kota.  
 U. PV-believe by father to will AV-send-APPL money to town  
 ‘Ujang was believed by the father that he would send the money to town.’

Given its incompatibility with the “tensed” auxiliaries, *jang* can be analyzed as an “untensed” auxiliary that is competing for the same slot with the “tensed” counterparts.

The impossibility of admitting epistemic adverbs into raising complements provides further empirical support for this proposal. This appeared in (31), repeated in (34).

- (34) \*Acéng di-percaya (ku) Siti sigana rék munggah haji.  
 A. PV-believe by S. possibly will go pilgrimage  
 ‘Siti believed Aceng to possibly go on pilgrimage.’

The ill-formedness of (34) could be due to the unavailability of any node higher than TP.

Proleptic complements have a larger structure due to the possibility of admitting epistemic adverbs in their complement clauses. This very fact has been previously mentioned in (30), repeated below.

- (35) Acéng di-omong-keun (ku) Siti yén manéhna sigana rék  
 A. PV-talk-APPL by S. COMP he possibly will  
 munggah haji.  
 go pilgrimage  
 ‘Siti talked about Aceng that he would possibly go on pilgrimage.’

Note that the “tensed” auxiliary *bakal* (‘will’) must immediately follow the epistemic adverb. When the adverb otherwise follows the auxiliary, the sentence is illicit (36).

(36) \*Acéng di-omong-keun (ku) Siti yén manéhna **réksigana** mungгах haji.

Sentence (36) obviously suggests the linear ordering of landing sites for the two elements; that is, epistemic adverbs must be higher than the “tensed” auxiliaries.

Another confirmation for this proposal emerges from the strict linear ordering of the epistemic adverbs with respect to the adverbs of frequency.

- (37) a. Acéng di-omong-keun (ku) Siti yén manéhna **sigana osok** mungгах haji.  
 A. PV-talk-APPL by S. COMP he possibly often go  
 Pilgrimage  
 ‘Siti talked about Aceng that he possibly often goes on pilgrimage.’  
 b. \*Acéng di-omong-keun (ku) Siti yén manéhna **osok sigana** mungгах haji.

The ungrammaticality of (37b) owes to the fact that the adverb of frequency *osok* (‘often’) precedes the epistemic adverb *sigana*, convincingly suggesting that the landing site for the epistemic adverbs must be higher than that of the adverbs of frequency. This is in line with Cinque’s (1999) claims that adverbs of the epistemic class must precede adverbs of the frequency class. This is evident in the following examples.

- (39) a. John probably frequently comes to my office.  
 b. \*John frequently probably comes to my office.

Hence, I argue that proleptic complements constitute a complementizer projection. This is especially motivated by the obligatoriness of a complementizer.

## 5. Conclusions

To resume, there are substantial differences between RtoO and prolepsis in Sundanese. These differences are due to structural properties: RtoO involves movement, while prolepsis involves base generation. Some properties that differentiate raising from prolepsis are outlined in the table below.

(40)

Properties	RtoO	Prolepsis
Resumptive pronoun in complement clause	No	Yes, Obligatory
Matrix DP must be complement subject	Yes	No
Immunity to island conditions	No	Yes
‘Complementizer’	optional, <i>jang</i>	Obligatory
Epistemic adverbs in complement clause	No	Yes

As is apparent from the above table, RtoO and prolepsis are structurally distinct, which strongly suggests that, unlike Madurese, Sundanese instantiates both structures just as English does. In other words, Davies's (2000, 2004, 2005) analysis of Madurese RtoO as prolepsis cannot be maintained for Sundanese.

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