

ANTI-ECP EFFECTS IN THE REJANG LANGUAGE OF SUMATRA*

Richard McGinn
Ohio University

Abstract

At issue is the claim that: "Variation of language is essentially morphological in character, including the critical question of which parts of a computation are overtly realized." (Chomsky 1995:7-8). The paper explores some evidence against the ECP that appears at first to be fairly overwhelming. Upon deeper inspection, however, the evidence supports the ECP and a special universal computation involving the complementizer system. The version adopted here is called Complementizer Contraction in Pesetsky (1982). Complementizer Contraction is parameterized; some languages have an overt reflex (French, Norwegian); other languages do not (English, Tagalog). To make the argument, many intricate details are described about the structure of relative clauses, comparative clauses, embedded complement clauses, and WH- questions in Rejang, a Western Austronesian language of Sumatra.

1. Gi/Bawo Alternation in Subject Relative Clauses

The basic word order of Rejang is SVO. The "core" rule proposed in this paper is (1).

(1) $O_i \text{ bawo} \rightarrow g_i / [_{CP} \text{ ______ }]_{IP} t_i$

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Rejang displays three complementizers in relative clauses: gi, bawo and zero. Roughly, gi appears in subject relatives (‘the man that came’); zero in adjunct relatives (‘the tool Fred fixed the car with’); and bawo in complement clauses introduced by bridge-verbs like adea ‘say (that)’, and hence also in the embedded clause of a complex relative. For convenience, the zero variant is backgrounded in this paper, and the main analysis is presented in terms of alternation between bawo and gi. See section 5.1 for direct evidence of alternation.

Rule (1) is a special mechanism needed to account for the distribution of gi and bawo in (2).

(2) a. Alui m-adea' [bawo [Desi teko ceño']]
 Alui ACT-say that Desi come late

‘Alui said that Desi came late.’

- b. *tun [O_i bawo [t_i teko ceño']] o
 person that come late the
 `the person that came late'
- c. ?? tun [O_i gi [t_i teko ceño']] o
 person that come late the
 `the person that came late'
- d. tun [gi_i [t_i teko ceño']] o
 person that come late the'
 `the person that came late'
- e. Dio ba [alat [O_i e [Alui m-oroa' stom ku t_i]] o]
 this is tool which Alui ACT-fix car my the
 `This is the tool Alui fixed my car (with).'

The following special symbols are used in the Rejang examples: e is schwa; é is mid-front; a bar over a nasal (, , etc.) indicates the following vowel is oral (non-nasal); and digraphs /ng/, /ny/ are unit phonemes, as are their `barred' counterparts. The "pure" complementizer bawo is illustrated in (2a). (2b) is ungrammatical. Example (2c), in which gi is substituted for the "pure" complementizer

but without coindexing, involves a technical violation of the ECP. Example (2d) is derived from (2b) by the CZR-CTR rule (1) and is grammatical. Example (2e) illustrates the claim that gi regularly fails to arise in relative clauses when the subject position is non-empty. Thus, Complementizer Contraction is well motivated. Theoretically, it removes potential ECP violations; empirically, it accounts for distributional properties of gi in relative clauses.

2. Predicted Non-Occurrence of Gi

Rule (1) applies to subject traces. Section 5 discusses some empirical problems with this condition. This section evokes the condition to explain the absence of gi in adjunct relatives and object relatives.

2.1 Relativized Adjuncts in Complement Clauses

Consider the fact that bawo can occur in the lower COMP of example (3), but nothing can occur in the relative clause COMP.

(3)

alat [O_i (*gi) tun o m-adea' [t_i' (bawo)
 tool that man the ACT-say that

Alui m-oroa' stom ku t_i] o
 Alui ACT-fix car my the

`the tool the man said that Alui fixed my car (with)'

Lasnik and Saito's (1984) gamma-marking theory allows a complementizer in both COMPS. Why does Rejang only allow one in the lower COMP? Consider bawo in (3). This can occur between adjunct traces (t' and t), which are not gamma-marked until LF. However, at LF an unindexed complementizer like bawo can and must be deleted, in conformity with the Principle of Full Interpretation (Chomsky 1986a). (In effect: "Ignore pure complementizer at LF because it has no interpretation.") The gamma-marking version of the ECP guarantees that t' properly antecedent-governs t since bawo can (and must) be ignored at LF, as required.¹ However, gamma-marking does not explain why gi is excluded in the higher COMP of (3). To account for this morphological detail, the Complementizer

¹ The Gamma Marking theory applies to English as follows.

- (i) *This is the guy who_i I said [t'_i **that** t_i loved Mary.
This is the guy who_i I said t_i loved Mary.
- (ii) This is the guy who_i I said [t'_i that Mary loved t_i .
This is the guy who_i I said Mary loved t_i .
- (iii) This is how $_i$ the guy said [t'_i **t/h/a/t** Mary fixed the car t_i .
This is how $_i$ the guy said Mary fixed the car t_i .
- (iv) Lasnik and Saito (1984)
 - a. gamma-marking: arguments at S-structure; adjuncts at LF
 - b. LF rule: that \rightarrow **t/h/a/t** (because meaningless)

Contraction rule (hereafter CZR-CTR) must be evoked. In particular, CZR-CTR cannot apply in the higher COMP because there is no adjacent subject-trace.²

The same argument applies in simple adjunct relatives like (4a), which is perfectly grammatical, and (4b), which is ungrammatical with gi.

- (4) a. Dio ba alat Alui m-oroa' setom ku o.
 this is tool Alui ACT-fix car my the
- b. *Dio ba alat gi Alui m-oroa' setom ku o.
 this is tool that Alui ACT-fix car my the
- c. Dio ba [alat [O_i e [Alui m-oroa' setom ku t_i]] o]
 this is tool Alui ACT-fix car my the
- `This is the tool Alui fixed my car (with).'

Example (4a), being grammatical, requires an empty adjunct operator (equivalent to English `with which') functioning as adjunct to the verb oroa' `fix' and coindexed with the head alat `tool'; the analysis of (4a) is shown in (4c). As (4b) illustrates, no relative pronoun occurs with adjunct relatives. This is not surprising from the point of view of the

²For the same reason gi does not replace bawo in the lower COMP. For discussion see Section 5.

morphology: gi is ruled out by the special CZR-CTR rule, not the ECP (see n. 1).³

2.2 Relativized Direct Objects and Passivization

A similar account can explain the nonoccurrence of a relative pronoun in Rejang object relatives (but see 5.3). Consider the following unacceptable data.

- (5) a. *tun [O_i bawo [pelisi o m-akep t_i kelem]] o
 person that police the ACT-catch last.night the
 `the person that the police arrested last night'
- b. *tun [O_i gi [pelisi o m-akep t_i kelem]] o
 person that police the ACT-catch last.night the
 `the person that the police arrested last night'
- c. *tun [O_i e [pelisi o m-akep t_i kelem]] o
 person police the ACT-catch last.night the
 `the person the police arrested last night'

The ECP is satisfied in all these examples because the object trace is properly governed by the verb. Notice, however, that (5b) is unlicensed by CZR-CTR; it is ungrammatical because *gi* is adjacent to

³ English also requires a special mechanism, the Doubly-Filled COMP Filter (or some equivalent), to explain the nonoccurrence of **that** in relative clauses such as *The tool with which (*that) Bill fixed the car.*

a lexical subject. It is unclear why (5a) and (5c) are equally bad⁴. The following passive relative clause was offered by my Rejang assistants as an acceptable substitute for (5a-c).

- (6) tun [gi_i [t_i t-en-akep t_i pelisi kelem]] o
 person that PASS-arrest police last.night the
 `the person that was arrested by the police last.night'

The passive marker is the infix -en-. Example (6) yields an empty subject position, and the relative pronoun gi_i is generated by the special CZR-CTR rule, as required (cf. example (2b)).

3. CZR-CTR Extensions

In this section it is demonstrated that the same rule is needed to satisfy the ECP in Rejang comparative clauses, pseudo-clefts, and wh-questions.

3.1 Comparative Clauses

As already noted, gi introduces clauses containing a subject-trace (but see section 5.2). Another example of gi in this function can be

⁴Perhaps neither is "visible" as a relative clause; see discussion of L-marking in section 5.1.

observed in comparative clauses like the following.

(7)

Hanis t-em-okoa lebéa' dew kan_i kun#ay [O_i [gi_i
 Hanis ACT-buy more many fish_i than those_i that_i

[t_i j-en-ua ne]]]
 t_i PASS-sell (by) her

‘Hanis bought more fish than she sold.’

In example (7) I assume gi_i replaces [O_i bawo] via CZR-CTR.⁵

3.2 Free Relative Clauses

Another occurrence of gi is in inverted sentences (pseudo-clefts) containing a free relative clause as subject. Consider the following data.

(8) a. Si adéba Alui. ‘He is Alui.’
 he be Alui

b. Si Alui. ‘He is Alui.’
 he Alui

(9) Alui gi teko. ‘It was Alui that came.’
 Alui that come.

(10)

⁵ The English analogue might be a relative clause; if so, CZR-CTR is needed to avoid an ECP violation, given a pre-contraction structure like the following.

Alice saw more people than those [O_i that [t_i saw her].

[IP [O_i bawo [t_i teko]] adéba Alui IP]
 CZR-CTR [IP [gi_i [t_i teko]] adéba Alui IP] (= (11))
 INVER. [IP [t_i] adéba Alui IP] [gi_i [t_i teko]]
 COP-DEL [IP t_i Alui IP] [gi_i [t_i teko]]

that come be Alui that come

Example (9) is derived by the three rules shown in (10). The Inversion rule involves (a) postposing the free-relative clause (functioning as subject NP) after the Predicate NP, adjoining it to IP, and (b) deleting the (stranded) copula. Notice that the structure generated by CZR-CTR (before Inversion) is also perfectly grammatical.

(11) Gi teko adéba Alui.
 that come be Alui

'The one that came was Alui.'

3.3 Wh- Questions

Other contexts that license gi are Wh- Questions, one variant of which utilizes an inverted structure similar to the one just illustrated. In fact, a favorite strategy in Rejang is to utilize a pleonastic subject

pronoun si modified by a relative clause. The derivation of the WH-Question (12a) below, shown as (13), involves CZR-CTR and two applications of WH- Movement.

- (12) a. Api si gi teko? `Who was it that came?'
 who it that come
- b. Api gi teko `Who was it that came?'
 who that come

(13)

D-STR [_{IP} si [_{CP} e bawo [O teko]_{CP}] adéba api _{IP}]
 MOVE WH [_{IP} si [_{CP} O_i bawo [t_i teko]_{CP}] adéba api _{IP}]
 CZR-CTR [_{IP} si [_{CP} gi_i [t_i teko]_{CP}] adéba api _{IP}]
 MOVE WH [_{CP} api_j e [_{IP} si [_{CP} gi_i [t_i teko]_{CP}] adéba t_j _{IP}]_{CP}]
 COP-DEL [_{CP} api_j e [_{IP} si [_{CP} gi_i [t_i teko]_{CP}] t_j _{IP}]_{CP}]
 who it that come be who

 `Who was it that came?'

For economy's sake inversion (pseudo-clefting) does not occur in derivations like (13) containing pleonastic si and an overt WH-question operator; instead the question operator moves directly to COMP, and the copula is obligatorily deleted. Example (12b) is derived from (13) by optional deletion of pleonastic si. I shall label questions like (12) "equational questions" to distinguish them from

non-equational questions shown in (15) below. By definition, equational questions contain gi and a [+WH] Predicate NP in COMP position.

For unknown reasons, in order to extract (move) an underlying subject or direct object to COMP at S-structure, the equational question strategy is preferred to the (virtual) exclusion of other strategies.⁶ Consider (14).

(14) a) Api si gi teko?

Api_j [_{IP} [_{NP} si [gi_i [t_i teko]]_{NP}] t_j _{IP}] ?
 who it that come

`Who was it that came?' (= Who wás it that came?)

b) *Api_j [_{IP} [_{NP} si [gi_i [John k-em-léa' t_i]]_{NP}] t_j _{IP}] ?
 who it that John ACT-see

`Who was it that John saw?'

⁶Some English analogues are no less puzzling. Why are clefts favored over free relative clauses beginning with `who'?

- i. What you saw was my brother.
- ii. a. ?Who you saw was Bill.
- b. It was Bill that you saw.

And what underlies the choice between `straight' and `equational' WH questions in English?

- iii. a. Who did you see coming in late?
- b. Who was it you saw coming in late?

c) $Api_j [_{IP} [_{NP} si [gi_i [t_i k-en-léa' t_i John]]_{NP}] t_j]_{IP} ?$
 who it that PASS-see John?

‘Who was it that was seen by John?’

Again, (14b) is ruled out because gi is unlicensed by the CZR-CTR rule even though the ECP is satisfied.

Another set of generalizations clearly bears on the ECP issues explored here, although the argument is indirect. In addition to the "equational" questions described above, Rejang speakers can use WH-in situ to question subjects, objects, and adjuncts. Consider the following data.

Rejang (not echo questions)

- | | |
|---|----------------------|
| (15) a) Api teko?
who come | ‘Who came?’ |
| b) Alui k-em-léa' api?
Alui ACT-see who | ‘Who did Alui see?’ |
| c) Alui alew na' ipe?
Alui go to where | ‘Where did Alui go?’ |
| d) Alui ke-dew sugéa'?
Alui WH-many rich | ‘How rich is Alui?’ |

Finally, to question an AP or PP in Rejang, both in situ and direct movement strategies are available. Compare (15c,d) with (16).

- (16) a) Na' ipe Alui alew? `Where did Alui go?'
 to where Alui go
- b) Ke-dew sugéa' Alui? `How rich is Alui?'
 how rich Alui

An important generalization about the morphology of Rejang WH-questions is this: gi is obligatory in equational questions (e.g. (12), (14a), (14c)) and excluded elsewhere. This distribution is precisely predicted by the CZR-CTR rule (1).

4. CZR-CTR in Other Languages

Rejang's CZR-CTR rule differs in minor ways from CZR-CTR in several other languages. For example, as described by Pesetsky (1982), the English variant is maximally simple: it does not apply to the subject position; and lacks an overt reflex.

- (17) English CZR-CTR
- O_i that --> that_i

Variants in other languages share the Rejang property of applying to subject traces. For example, in Norwegian the D-structure

complementizer at surfaces as at_i except when adjacent to a subject-trace, where it is replaced by som_i.

(18) a. *en Mann at t var fra India

 `a man that t was from India'

 b. en Mann som_i t_i var fra India

 `a man who was from India'

In French, the D-structure complementizer que is replaced by qui when adjacent to a subject-trace; moreover, French CZR-CTR applies to intermediate argument traces in the COMP of complement clauses.

(19) Complementizer Contraction in French (following Pesetsky 1982)

$$\left\{ \begin{array}{c} o_i \\ t_i \end{array} \right\} \text{ que } \rightarrow \text{ qui}_i / [_{\text{CP}} \text{ ______ } [_{\text{IP}} t_i$$

(20) a. *l'homme [O_i que [t_i viendra nous rendre visite]]

 b. l'homme [qui_i [t_i viendra nous rendre visite]]

 `the man that will pay us a visit'

Pesetsky's rule (19) accounts for (20), (21), and (22a).

- (21) a. l'homme que tu crois que j'aime t
 b. *l'homme que tu crois qui j'aime t
 `the man that you believe that I love'
- (22) a. *l'homme que tu crois que t viendra
 nous rendre visite
 b. l'homme que tu crois qui 'l viendra
 nous rendre visite
 `the man that you believe will come pay us a visit'

However, rule (19) fails to account for qui in (22b) since there is no subject-trace; instead, there is an obligatory resumptive pronoun subject il (l) adjacent to qui in some dialects.

Another version of CZR-CTR is found in Tagalog, a Philippine language related to Rejang. The Tagalog parameter applies to a subject trace, but has no overt reflex.

- (23) Tagalog CZR-CTR: $O_i \text{ na} \rightarrow \text{na}_i / \text{ } _ \text{[}_{\text{IP}} \dots t_i \dots \text{]} \text{ [+nom]}$

Tagalog is a VOS language. The D-structure complementizer na

is illustrated in sentence (24).

- (24) S-in-abi ni Tes [na [na-matay ang anak]]
 PASS-say by Tes that PAST-die the child

`It was said by Tes that the child died.'

However, in relative clauses the complementizer must be indexed to escape violating the ECP; thus CZR-CTR must apply in (25a) to derive (25b).

- (25) a. ang anak [O_i na [na-matay t_i]]
 the child that PAST-die

`the child that died'

- b. ang anak [na $_i$ [na-matay t_i]]
 the child that PAST-die

`the child that died'

Object relatives do not occur in Tagalog (Keenan and Comrie 1977).

Tagalog's CZR-CTR rule (21) might help explain this fact; for one thing, the rule only allows a relative pronoun to be licensed in a subject relative clause.

To summarize the implications of the analysis so far:

1. CZR-CTR is a (parameterized) universal rule; some languages

have an overt reflex (French que/qui; Norwegian at/som; Rejang bawo/gi); others do not (English that/that; Tagalog na/na).

2. Study of Rejang's CZR-CTR rule might possibly contribute toward understanding the morpho-syntactic typology of Austronesian languages, where relative pronouns tend to be associated with relativized subjects. Put differently, although Rejang's CTR-CTR rule has unique features, in an important sense it is expected to have unique features to the extent that it belongs to the morphology of the language. At one and the same time, however, it instantiates one of a highly restricted set of possibilities provided by UG. This explains why many (all?) languages have something very much like a CZR-CTR rule, and why therefore the Rejang CZR-CTR rule is comparable to similar computations in totally unrelated languages like English, French and Norwegian, as well as related languages like Tagalog.

5. Residual Problems

This section introduces some empirical inadequacies of the CZR-CTR rule as formulated in (1). In fact, rule (1) is too restrictive to account for every possible instance of gi within Rejang relative clause

structures. There are three problems. The first problem, examined in the next section, actually forces the analysis to be improved (generalized); and has the added benefit of demonstrating that bawo and gi clearly alternate in the grammar. The second problem, which is discussed in section 5.2, concerns relativized possessive phrases. The third problem, discussed in 5.3, evinces a solution to a puzzle introduced in McGinn (1989).

5.1 Apparent ECP Violations in Complement Clauses

Another apparent ECP violation in Rejang occurs in complement clauses like example (28)-(29) below. But this problem may be illusory. For one thing, as a null-subject language Rejang is expected to (and does) allow empty resumptive pronouns⁷ in complement clauses (vide. Chomsky 1981:240). Consider sentence (26) which exhibits a full-subject complement clause embedded within a relative clause.

⁷Object resumptive pronouns are independently motivated in Rejang "tough" and "object topicalization" constructions.

i. Bukew io mudea' m-baco ne. `This book is easy to read.'
 book this easy ACT-read it

ii. Filem o ati ku t-em-oton ne. `That movie I have not seen.'

(26)

tun_i tuey [gi n-adea' Alui [bawo si_i teko ceño']] o
 person old that PASS-say Alui that he come late the

`the old person_i of-whom it was said by Alui that he_i
 came late'

As expected, gi cannot replace bawo in the complement clause of (26) because the adjacent subject position is non-empty. Thus (27) is ungrammatical.

(27) *tun tuey gi [e n-adea' Alui [gi [si teko ceño']]] o
 person old of- it PASS-say Alui that he come late the
 -whom

`the man of -whom it was said by Alui that he came late'

Interestingly, however, when si is deleted in (27) the result is perfectly grammatical, as shown by (28).

(28) tun tuey gi [e n-adea' Alui [gi [e teko ceño']]] o
 person old of- it PASS-say Alui that come late the
 -whom

`the old man of whom it was said by Alui that (he) came late'

Examples (26)-(28) are important for two reasons: they prove that gi

and bawo do indeed alternate systematically in the grammar; and that gi can and does occur in a complement clause inside a relative clause.

A new issue now arises whether (28) really involves an empty resumptive pronoun. If so, this would not be predicted by our CZR-CTR rule (1), which should only apply to subject-traces; therefore, we have grounds to seek an alternative to the resumptive-pronoun analysis of (28). Another issue concerns the indexing of both complementizers. Other problems with the resumptive pronoun analysis will be addressed below. Before tackling them an additional assumption should be laid bare.

I assume throughout that the complement clauses in (26)-(28) represent the underlying subject of a passive bridge verb. Then (29) is one possible analysis of (28) given the (somewhat questionable) assumption that the embedded subject is simply a deleted resumptive pronoun.

(29) tun_i $tuey$ [+ WH_i $bawo$ [O_i $bawo$ [e_i $teko$ $ceño'$]]
 man old of- that he come late
 -whom

n-adea' t_i Alui]] o
 PASS-say (by) Alui the

`the old man [of whom [[that he came late] was said by Alui]]'

(= `the old man of whom it_i was said by Alui [that he came late]_i]')

As hinted at above, however, this analysis of (28) faces empirical and theoretical problems. For one thing, there is no good reason for gi to replace bawo if the embedded subject pronoun is simply deleted. Second, an explanation is needed for the fact that the complementizers "agree" in (28) but not in (26). In other languages, such as Irish (McClosky 1990), resumptive pronouns compete alongside the WH movement strategy, and the complementizers co-vary systematically depending on the strategy selected: the complementizers "agree" only when two or more clauses share the same operator via "long" WH movement. McClosky (1990) considers complement-agreement to provide evidence for successive-cyclic (COMP-to-COMP) WH movement.

This leads us to consider an alternative analysis of (28), namely, COMP-to-COMP movement. As before, the COMP-to-COMP analysis

requires a passive higher verb of which the lower clause is its extraposed subject (pseudo-complement). Consider the structure in (30).

(30)

tun_i tuey [gi_i [t_j n-adea' Alui [t'_i gi_i
 person old that PASS-say Alui that

[t_i teko ceño']]]] o
 come late the

'the old man that was said (by) Alui that came late'

Given the analysis presented in (30), the higher subject is the trace of the original (postposed) subject clause, and the lower subject is the trace of the moved WH- phrase; this explains why the bridge verb n-adea' is passive. There are several specific arguments favoring COMP-to-COMP to account for the embedded empty subject position. First, if the lower subject is a trace then the fact that gi replaces bawo is predictable. Second, the fact that both complementizers agree can be taken as evidence for COMP-to-COMP movement. Third, by contrast, the complementizers do not agree when the lower subject is clearly a resumptive pronoun, as in (26); the contrast clearly favors (30) over

(29) as the correct analysis of (28). Fourth, consider some deletion facts. It is curious that the two gi's in (30)=(28) behave differently with respect to deletion: whereas the higher gi is obligatory, the lower gi is optional. Thus (31a) is grammatical and (31b) is ungrammatical.

(31) a. tun tuey [gi [e n-adea' Alui [e [e teko ceño']]] o
 person old of- it PASS-say Alui that come late the
 -whom

`the old man of-whom (it) was said (by) Alui (that he)
 came late'

b. *tun tuey [e [e n-adea' Alui [e [e teko ceño']]] o
 person old it PASS-say Alui that he come late the

`the old man was said by Alui came late'

As suggested by the gloss in (31a), the contrast might be explained in terms of the dual strategy for identifying a lower subject variable. In (31a) the complementizer positions fail to agree. This actually follows when the example is interpreted as the reduced form of the resumptive pronoun strategy, so that (31a) is related to (26) by deletion of bawo and the lower subject pronoun si. By contrast (31b), which lacks a complementizer in both clauses, fails altogether; the

complementizer positions do not "agree" morphologically, and the structure crashes. The failure of (31b) might be explained in terms of the distinction between argument and adjunct, which reduces to L-marking in Chomsky (1986b). The passive verb n-adea' `say' L-marks (selects) an underlying complex subject (= pseudo-complement clause). Hence, as (31a) shows, the lower COMP (bawo) can be deleted along with the resumptive-pronoun subject, given that these items are recoverable from the meaning of the verb. By contrast, nouns (like tun `person'), which do not L-mark a modifying relative clause (= adjunct), require an overt complementizer in the higher (relative clause) COMP (gi) in order to identify the structure.

A reasonable conclusion to draw from these arguments is that (30) underlies (28) and (29) underlies (26) and (31a). At one and the same time, however, the CZR-CTR rule (1) must undergo a minor revision in order to accommodate (28)=(30). The revised CZR-CTR rule is shown in (32).

(32) Rejang complementizer contraction (revised)

$$\left\{ \begin{array}{c} o \\ i \end{array} \right\} \text{bawo} \rightarrow \text{gi}_i / [_{\text{CP}} \text{_____} [_{\text{IP}} \text{t} \dots$$

The revised CZR-CTR rule now applies not only to subject traces and empty operators in COMP as before, but also to intermediate traces in COMP (cf. French rule (19)). Another change is that gi and the trace are not coindexed (unlike French rule (19)), allowing the higher gi in (28)=(30) to be associated with the subjacent subject trace (in contrast to French rule (19)).⁸ The revised CZR-CTR rule accounts for all previous data including the COMP-to-COMP case just discussed, and for the explicit alternation between bawo in (26) and gi in (28).

5.2 gi and Relativized Possessive Phrases

Another empirical problem for the CZR-CTR theory concerns relativized possessive phrases. Relativized possessives utilize a resumptive pronoun strategy in Rejang, as the only available option. Most interestingly, relativized possessives are limited to subject phrases (they are rejected in object and adjunct phrases). Finally, and somewhat puzzlingly, the (obligatory) complementizer for relativized possessives is gi. Consider the following data.

⁸Independent support for this move will be presented in section 5.2 below.

- (33) a. tun [gi nyung ne panj#ang] o
 person that nose his long the
 `the person that his nose is long'
- b. *tun [(gi) Alui k-em-léa' ngenyan ne] o
 person that Alui ACT-see wife his the
 `the person that Alui saw his wife'
- c. *alat [Alui m-oroa' setom ku ngen ne] o
 tool Alui ACT-fix car my with it the
 `the tool (that) Alui fixed my car with it'
- d. *tun [(gi) si m-oroa' setom ku] o
 person that he ACT-fix car my the
 `the person that he fixed the car'
- e. *tun [(gi) nyung panj#ang] o
 person that nose long the
 `the person that nose is long'

Examples like (33a) pose a problem for our CZR-CTR theory. The lexical subject is expected to block CZR-CTR (as the remaining examples show). But gi is obligatory in (33a). How is this fact to be explained?

Two possibilities come to mind, both compatible with the CZR-

CTR rule presented in this paper. First, perhaps the entire possessed phrase moves to COMP at LF, somewhat like WH-Questions (e.g. (16)). If so, then such movement leaves a trace in subject position at LF, and the empty operator in COMP will be replaced. Suppose (somewhat fancifully, perhaps) that each component of the CZR-CTR rule could be factored independently in a quasi-temporal derivation from S-structure to LF. Then conceivably CZR-CTR might apply during WH movement (in mid-flight, so to speak!). A second, more promising, approach can be developed based on the DP hypothesis, which states that bare noun phrases are DPs headed by null D (Longobardi 1994 and references cited there). Suppose that Rejang (and English) possessed NPs are bare noun phrases. If so, then nyung ne in (33a) is a bare NP: [DP[D' e [NP nyung] ne]]. This is a highly reasonable assumption, although admittedly more field work (not possible at this time) is needed to establish the point beyond all doubt for Rejang. Nonetheless, on the (reasonable) assumption that the possessor ne is a resumptive pronoun occupying the Specifier of DP position, it follows from Spec-Head agreement theory that an empty

head D would be coindexed with ne, and also with the head of the relative clause tun 'person'. The following are the main ingredients of this analysis.

(34) a. tun_i [O_i bawo [[$_{DP}$ [$_{D'}$ e_i [$_{NP}$ nyung] ne_i] $_{DP}$] panj#ang]] o

b. tun_i [gi_i [[$_{DP}$ [$_{D'}$ e_i [$_{NP}$ nyung] ne_i] $_{DP}$] panj#ang]] o
 person that nose his long

'the person that his nose (is) long'

Notice that DP specifiers follow the head and any complements; and that heads are phrase-initial (McGinn 1982:9-11). Now, the goal is to interpret CZR-CTR so that it applies to (34a) yielding (34b)=(33a), while at the same time excluding (33d) and (33e). Let us begin with (33d). Here an appeal must be made to a (probably) universal principle, the highest subject restriction (HSR), which governs the distribution of relativized resumptive pronouns in Irish and many other languages (McClosky 1990:210). In Irish, resumptive pronouns occur in every possible position except the highest subject position of a relative clause. Adopting this principle explains (33d). Next, (33e) yields a straightforward Subjacency violation (an empty possessive WH

operator originating in Spec of DP cannot move to COMP across two barriers (DP and IP)). Finally, to account for (33a)=(34), it is important to bear in mind that the head of the relative clause tun is coindexed with the relativized possessor ne, which in turn is coindexed with the empty head D via Spec-Head agreement. Now, the CZR-CTR rule need not (and must not) mention coindexing between gi and $[_D e]$, since the indexing relationship between these two elements can vary; see n. 8 and accompanying text. What is needed is for CZR-CTR to apply to $[O \text{ bawo } [[[_D e \dots$ in (34a).⁹ I therefore propose to revise (32) as (35).

(35) Rejang complementizer contraction (final revision)

$$e_i \text{ bawo} \rightarrow gi_i / [_{CP} \text{ ______ } [_{IP} e \dots$$

This rule captures the full distribution of gi as far as is known, including the three problematic cases examined here: the two "WH agreement" cases shown as (28)=(30); and the relativized possessive case just described. The generalization is strengthened by the

⁹An anonymous reviewer commented as follows: "In French too, it would seem, any empty category following a complementizer can license use of the subject extraction complementizer." Thus in the French equivalent of 'I saw John eating ice cream' qui (not que) follows John.

assumption that all WH variables originate as the head (D) of DP.

5.3 (Restricted) Movement of Relativized Objects

The last problem to be introduced seems to threaten our whole line of defense in support of the ECP. During field trips to Rejang country after publishing McGinn (1982) I began to discover some relative clauses that I now believe must involve WH movement of direct objects. At the same time, I believe these data represent a highly marked option. The problematic examples were observed under elicitation conditions (never in recorded conversations and texts), and showed *gi* associated with (what appeared to be) a non-null subject. Only a restricted set of high-animacy subjects was permitted, however; see McGinn (1989) for discussion. Such data are totally unexpected from the point of view of the analysis of this paper. The following is an example.

- (36) *pilem [gi_i mulaé ku t-em-oton t_i kelem] o*
 movie that begin I ACT-watch last.night the
 `the movie that I began to watch last night'

Example (36), being an object relative displaying gi, seems clearly to contradict our analysis. What is even worse for our analysis, the example is virtually predicted to be grammatical on universal grounds, since the object trace is properly governed by the transitive verb. A related puzzle involves marginally acceptable "long" movement from the embedded subject or object position, crossing an active bridge-verb. Although never encountered in recorded narratives or free conversations, the following examples were judged acceptable by some younger speakers under elicitation conditions.

- (37) a. [filem [gi_i ko m-adea'
movie that you ACT-say

[gi_i mulaé ko t-em-oton t_i kelem]]] o]
that begin you ACT-watch last.night the

`the movie that you said that you began to watch last night'

- b. [tun [gi_i ku m-adea'
person that I ACT-say

[gi_i [t_i t-em-an#ang Pak Lu'ea' kelem]]] o]
that ACT-visit Mr. Headman last.night the

`the person that I said visited the headman last night'

Notice in particular that the complementizers "agree", and this feature is diagnostic of COMP-to-COMP movement, following McClosky (1990). Notice also that (37b) requires CZR-CTR in the lower clause to escape an ECP violation. What remains to discover is how the remaining gi's relate to our CZR-CTR rule as formulated.¹⁰ Several possibilities come to mind, but vanishingly few are compatible with our analysis. One conceivable option is to weaken the CZR-CTR rule to apply to high-animacy subjects.¹¹ Another might appeal to the distinction between "core" grammar vs. periphery, and declare that the examples lie outside the core of the formal grammar, to be accounted for elsewhere in a complete compendium of the language¹². But there is a third possibility that may provide independent support for the revised CZR-CTR rule (35). Suppose gi is actually followed by an empty subject in (36)-(37). A crucial bit of evidence can be adduced from the position of the subject pronoun in (36). Compare

¹⁰Unaccounted for are the higher gi in (36b) and both gi's in (36a).

¹¹For example, a disjunction might replace the empty subject variable e in rule (35), namely: e or 'high-animacy' NP (= 1st or 2nd Person Pronoun). A similar split along personhood lines is needed to account for case-marking in many 'split ergative' languages.

¹²Compare English objective-case subjects under coordination ("Me and Ellen want to VP").

(36) and (38).

- (38) Uku mulaé t-em-oton pilem o.
 I begin ACT-watch movie the
 `I began to watch the movie.'

Notice that uku in (38) occupies the initial position of its clause, whereas the corresponding pronoun ku in (36) follows the co-verb mulaé. Second, ku in (36) is short-form in contrast to uku in (38) which is long-form. Third, if gi is head of CP in (36), there is little motivation for mulaé to occupy the same position via head-movement¹³; thus if mulaé remains in canonical S-structure position in (36), the subject pronoun ku must occupy a non-canonical position. These arguments and observations are consistent with the suggestion that the subject positions subjacent to gi in (36) and (37) are empty. There are at least two ways to derive this situation: the subject pronoun is an enclitic of the (active) verb; or the subject pronoun remains in Spec of VP position, failing (for some reason) to raise to Spec of IP. This last possibility arises under the Internal Subject

¹³Contrast this case with "object topicalization" (in n. 7 example (ii)) where ati presumably moves to C.

Hypothesis, which states that subjects originate within the VP and move to Spec of IP. (See Guilfoyle, Hung and Travis (1992) for an interesting application of this hypothesis to the morpho-syntax of Austronesian languages.) Either of these two possibilities would provide a basis for claiming that our CZR-CTR rule (35) can and does apply in (36)-(37), because the external subject position (Spec of IP) is empty, as required. Preliminary evidence can be adduced from ungrammatical examples involving third-person pronoun si. After countless attempts in many different contexts I was unable to elicit the combination gi si as an acceptable string in Rejang. The explanation is that the CZR-CTR theory automatically assigns `*' to sentences containing either gi si or gi DPLEX. Now, however, in order to maintain the theory in the face of data like (36)-(37), something new must be added. Let us adopt the Internal Subject Hypothesis, and assume, as a marked option for Rejang, that the "pure shifters" ku and ko (but not si) do not need Case (or they can receive Case without raising to Spec of IP), and thus the External Subject position remains empty. This idea is consistent with the robust use of in-situ internal

subjects in the theory presented in Guilfoyle, Hung, and Travis (1992). Adopting this possibility as a marked option for Rejang actually predicts gi in these otherwise bewildering cases. The following is the proposed analysis of (36).

(39)

- a. pilem [O_i bawo [IP e mulaé [VP ku t-em-oton t_i kelem] o
 movie that begin I ACT-watch last.night the
- b. pilem [gi_i [IP e mulaé [VP ku t-em-oton t_i kelem] o
 movie that begin I ACT-watch last.night the
- `the movie that I began to watch last night'

If accepted, this analysis provides independent evidence in support of the decision to revise the CZR-CTR rule in the previous sub-section (5.2). There, the existence of relativized possessives forced the CZR-CTR rule to be generalized to apply to (not just traces but) any empty category in subject position. This sub-section has presented independent evidence in support of that decision.

6.0 Conclusion

This paper has attempted to show that a great number of apparent ECP violations in Rejang can be explained within an enriched theory

of the ECP that assumes the existence of a special, parameterized morphological computation within the complementizer system. To be accepted, the special computation must pass the fiercest of empirical tests, since both UG theory and Rejang morphology would be simpler without it. To be justified, similar computations should be verifiable in other languages, and capture important generalizations in individual languages. The parameterized CZR-CTR approach satisfies both criteria, I believe. Thus, this paper supports the research strategy of testing the ECP¹⁴ by analyzing and (hopefully) explaining *prima facie* ECP violations in individual languages. When the strategy is successful, as I believe it has been here, the violations prove illusory, and the ECP is validated in that test language. The Rejang version of CZR-CTR has certain unique features, to be sure. But other languages have a similar computation, as described by Pesetsky (1982), which are likewise insightfully compatible with Lasnik and Saito's (1984) gamma-marking theory of the ECP. (Alternative formulations, not attempted here, are always possible. For example, following Rizzi

¹⁴For our purposes in this paper it is unimportant whether the ECP is a primitive of UG or derived from an Economy principle.

(1990) our theory of gi/bawo alternation might be replaced by a theory in which gi alternates with zero, gi arising from $[O_i e [t_i$ and becoming $[O_i \underline{g}_i [e \dots$ under conditions of Spec-Head Agreement, the agreement marked by an overt morpheme gi provided with features allowing it to license the empty subject (cf. Chomsky 1995:86).) Put differently, if the ECP exists as a valid principle of UG, then so does CZR-CTR, or some equivalent computation in the complementizer system. Its function, apparently, is to drive computations in conformity with the ECP and thereby license presumably useful structures at LF (such as subject relative clauses). At one and the same time, it is plain that all such special computations represent a backward step away from fulfilling Minimalist assumptions about linguistic structure (Chomsky 1995, Chapter Four). The ECP would be simpler, and UG theory correspondingly more "perfect", without the added computation. But the same is true of every mechanism required by UG theory, including Move Alpha, the ECP, the Case Filter--not to mention the special mechanisms needed for English.¹⁵

¹⁵See also n. 6.

Why natural language data should force these mechanisms upon linguistic theory is an interesting question which cannot be answered within the scope of this investigation. It is equivalent to asking why morphological properties exist, or why language diversity exists. What is important to emphasize here is the character of generative grammar as an empirical science, whose theories apply to the exquisite subtleties of natural languages as well as to idealizations such as the Minimalist concept of "perfect" language.

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