Multiple fronting restrictions in Eastern Cham:
An [ID]-feature account

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1 Introduction

• How can we account for an extraction asymmetry in topic and focus fronting?¹
• Multiple topics/foci may be freely ordered in Romance languages (1-2)

– Formalizations include \([\text{TOP}]\) and \([\text{FOC}]\) features in Rizzi (1997), Miyagawa (2010); anaphora and contrast features in López (2009)

(1) \(A \ \text{mí dinero} \ \text{Juan nunca me deja.}\)
\(\text{DAT me money Juan never CL.dat lends}\)
‘Juan never lends me money.’ [López (2009): (2.20a)]

(2) \(\text{Dinero, a mí, Juan nunca me deja.}\)
\(\text{money DAT me Juan never CL.dat lends}\)
‘Juan never lends me money.’ [López (2009): (2.20b)]

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• *Wh*-phrases (perhaps, foci) may display Superiority effects (3-4; cf. Richards (2001), Bošković (2002))

(3) **Koj kogo običa?**
    *who whom loves*
    ‘Who loves whom?’ [Bošković (2002): (11a)]

(4) **Kogo koj običa?**
    *whom who loves*
    **INTENDED:** ‘Who loves whom?’ [Bošković (2002): (11b)]

• Eastern Cham topic and focus-fronting, however, display apparent Anti-Superiority effects (5-6; Sections 2-3)

(5) **krɨy ni, mohammad hu bāŋ**
    *orange DEM Mohammad eat*
    ‘This orange, it’s Mohammad who ate.’ [MST_20141203]

(6) ***mohammad, krɨy ni hu bāŋ***
    *Mohammad orange DEM eat*
    **INTENDED:** ‘Mohammad, it’s this orange who ate.’ [MST_20141203]

• A novel implementation of Adger and Ramchand (2005)’s feature framework (Section 4) will be used to explain these facts
  – Apparent topic and focus-fronting represent dependencies between two base-generated phrases, which are linked via an Agree operation (7)

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2I will primarily use the term ‘fronting’ here to describe apparent movement/extraction to be theoretically noncommittal.

3Orthography is in line with the Cham linguistic tradition (Moussay, Thurgood, Brunelle): open circles underneath consonants indicate falling, breathy tone on the preceding vowel; otherwise following the IPA. Topicalized and focussed phrases are bolded for emphasis. Data is from the author’s fieldwork in Vietnam and the United States with native speakers from 2014-2015. Examples are marked with speaker codes and dates.
This analysis straightforwardly explains otherwise unexpected data:

- Non-identity effects (Section 5.1)
- Interactions with resumptive pronouns (Section 5.2)
- Anti-superiority effects with wh-phrases (Section 5.3)
- A ban on multiple long-distance fronting (Section 5.4)

2 Eastern Cham topic and focus

- Eastern Cham (Austronesian: Vietnam; Ethnologue: cjm) has undergone intense contact with Mainland Southeast Asian languages (Thurgood 1999)
- Morphologically isolating, SVO, monosyllabic, tonal

2.1 Topic fronting

- Prosodically marked by a pause and a pitch drop (cf. Brunelle & Văn Hẳn (2015)); occasionally marked by pʰ
– Note: wh-phrases may be topics (see data in Baclawski (2015))

(8) \( ?iŋ \ ?əŋ, \ nu \ ŋa? \ p̥iŋ̥i \ lo \)
   ing-aong 3SG  cook  delicious  very
   ‘The ing-aong [frog sp.], he cooks very well.’ [HL_20151127]

(9) \( thay, \ ploh \ zut \ ŋa \)
   who  after  friend  invite
   ‘Who did you invite then?’ [TDK_20150625]

• Topics may also be in-situ or pro-dropped (radically, cf. Huang (1984))

(10) \( nu \ ŋa? \ (\ ?iŋ \ ?əŋ) \ p̥iŋ̥i \ lo \)
    3SG  cook  ing-aong  delicious  very
    ‘He cooks (the ing-aong [frog sp.]) very well.’ [HL_20151127]

2.2 Focus fronting

• Marked by \( hu \) ‘have, EX.COP’; identificational focus semantics (cf. Kiss (1998))

(11) \( kra \ ťhin \ hu \ ŋa? \ cōh \)
    monkey  FOC  snake  bite
    ‘It was the monkey the snake bit.’ [MST_20141029]
    SPEAKER: “It was exactly the monkey that the snake bit.”

(12) \( hi \ hu \ řaʔ \ p̥taw \ m̥tay \)
    2SG  FOC  shoot  king  die
    ‘It was you who shot the king dead.’ [MST_20140924]
    SPEAKER: “I know it was you who shot the king dead.”

• Focussed phrases may also be in-situ, but not marked by \( hu \)

(13) \( kaw \ řaʔ \ bāŋ \ lo \ ŋu? \ (\ ?hu) \)
    1SG  PROG  eat  meat  chicken  FOC
    CONTEXT: ‘What are you eating?’
    ‘I’m eating chicken.’ [NNA_20150615]
3 Basic fronting restriction

• An object may be fronted ahead of a fronted matrix subject (14)
• A matrix subject may not be fronted ahead of a fronted object (15)

(14) $kriy \ ni, \ mohammad \ hu \ ḅaŋ \ O_{TOP} \ S_{FOC} \ V$

orange \ DEM \ Mohammad \ FOC \ eat

‘This orange, it’s Mohammad who ate.’ [MST_20141203]

(15) $^*mohammad, \ kriy \ ni \ hu \ ḅaŋ \ ^*S_{TOP} \ O_{FOC} \ V$

Mohammad \ orange \ DEM \ FOC \ eat

INTENDED: ‘Mohammad, it’s this orange who ate.’ [MST_20141203]

• This restriction is not specific to subjects, cf. embedding contexts (16-17)

(16) $p̥ɔtɔ, \ hu \ ʔ̥om \ raŋ \ alamin \ ḳhān \ lay? \ mātay$

king \ FOC \ how.many \ person \ Alamin \ tell \ that \ die

‘The king, how many people did Alamin tell that (he) died?’ [MST_20150301]

(17) $^*ʔ̥om \ raŋ, \ p̥ɔtɔ \ hu \ alamin \ ḳhān \ lay? \ mātay$

how.many \ person \ king \ FOC \ Alamin \ tell \ that \ die

INTENDED: ‘How many people, it was the king that Alamin told that (he) died?’ [MST_20150301]

• The same restriction obtains for two fronted topics (18-19)

(18) $ḅi: \ năn, \ thay \ po \ saman \ ?a \ may \ ɲum$

beer \ DEM \ who \ TOP \ Saman \ invite \ come \ drink

‘This beer, who did Saman invite to come drink?’ [DPNS_20150623]

(19) $^*thay \ po \ ḅi: \ năn, \ saman \ ?a \ may \ ɲum?$

who \ TOP \ beer \ DEM \ Saman \ invite \ come \ drink

INTENDED: ‘Who, this beer, did Saman invite to come drink?’ [DPNS_20150623]

• Summary: dependencies may not result in crossed paths (Pesetsky (1982); cf. also work by Aoun & Li (2003) on wh-phrases in Lebanese Arabic)
4 Analysis

- Adger and Ramchand (2005)’s [id] feature framework provides a unified account of topic and focus fronting
- This framework distinguishes syntactic and semantic dependencies with features on C^0 and pro
  - All C^0’s contain [Λ] (cf. predicate abstraction); all pro contain [id] (cf. variable)
  - Semantic dependency: C^0([Λ] ... pro([id: ϕ]))
  - Syntactic dependency: a. C^0([Λ, u:id:dep]) ... pro([id: ___])
    → b. C^0([Λ, u:id:dep]) ... pro([id: dep])
- Note, [id:dep] probes locally (22-23)
• Cross-linguistic variation arises in feature assignment to $C^0$ and pro
  – Cf. $aN$ ([Λ]) and $a$ ([Λ, uID: dep]) in Scottish Gaelic
  – pro([ID:__]) may be null (Irish) or overt (Welsh: -e ‘3sg’; São Tomense Creole (e.g. i ‘1sg’)

4.1 The [ID] feature in Eastern Cham

• There are two null $C^0$: $C([Λ])$ and $C([Λ, uID: dep])$
• Pronouns with [ID: __] feature are null
• Pronouns with [ID: ϕ] are overt, except in pro-drop contexts
• Topic and focus-fronting:
  – Base-generation of topic/focus in Spec-CP
  – If $C^0$ has [ID:dep], it probes for a pronoun with [ID: __]
  – Semantic or syntactic binding of the topic/focus phrase to a pronoun with [ID]

(24)
5 Predictions

• The [ID] feature framework predicts non-identity effects (Section 5.1) and interactions with resumptive pronouns (Section 5.2)

• Two further phenomena are readily explained: Anti-Superiority effects (Section 5.3) and long-distance dependency restrictions (Section 5.4)

5.1 Non-identity effects

• Identity effects: are the head and foot of a dependency identical elements?
  – Adger and Ramchand (2005) predict non-identity effects for an [ID] feature dependency

• Some tests are inconclusive, e.g. any test involving overt morphology

• Movement tests imply that fronted topics/foci are base-generated:
  – Islands may be violated (here, adjuncts and complex NP)
  – Adger and Ramchand (2005) predict semantic dependencies; note the resumptive pronoun in (25)

(25) ŭraŋ hə̆lay, hi plēh naw kāyua hi bōh (ŋu)
  person which 2SG leave go because 2SG see 3SG
  ‘Which person did you leave because you saw?’ [MST_20141008]

(26) tom raŋ āniʔ seh ŋu klāʔ pātɔ kā ŋu pātɔ
  how many person CLF student 3SG quit teach because 3SG teach
  ‘He quit because he taught how many students?’ [MST_20141022]

(27) hu tom raŋ, hi khan ɡrūʔ naw wah kan
  FOC how many person 2SG tell story go catch fish
  ‘How many people did you tell a story about going fishing?’ [MST_20150301]

4 Also, the head of a topic or focus dependency can be “put back in place”, albeit without pɔ or hu (cf. (Adger and Ramchand 2005:168))

5 Note that plēh ‘leave’ and klāʔ ‘quit’ are plainly intransitive in Eastern Cham; hence (25-26) are not parasitic gap constructions.
– Condition C binding violations do not obtain (28)

(28) \{mohammad\}, saw \textit{nu tākri}i kē? \{*\}
Mohammad dog 3SG like bite
‘Mohammad, the dog that he likes bit.’ [MST_20150426]

– Perhaps not surprising for topicalization, idioms are not reconstructible

(29) \#k̥lay, \textit{nu naw ɕua}? 
forest 3SG go step
INTENDED: ‘He went to the bathroom.’ [MST_20141210]

5.2 Resumptive pronouns

• Resumptive pronouns are apparently possible in any fronting context (30; further non-identity evidence)

(30) \textit{thay, hi tākri (nu,)} 
who 2SG like 3SG
‘Who [sg.] do you like?’ [MST_20141022]

• The fronting restriction is alleviated if either the subject or object are resumed (32-33)

(31) *\textit{thay hāk̥ɛt, n̥i̥m}\hphantom{SFOC OTOP V} 
who what borrow
INTENDED: ‘Who borrowed what?’ [MST_20141022]

(32) \textit{thay, hāk̥ɛt, nu, n̥i̥m}\hphantom{SFOC OTOP RP V} 
who what 3SG borrow
‘Who borrowed what?’ [MST_20141022]

(33) \textit{thay hāk̥ɛt, n̥i̥m nān}, \hphantom{SFOC OTOP V RP} 
who what borrow 3SG
‘Who borrowed what?’ [MST_20141022]

• Overt pronouns enter a semantic, but not syntactic dependency. Hence, locality is still respected in (35; note that semantic dependencies are marked with dashed lines)
• However, the sentence is severely degraded if there are two resumptive pronouns, perhaps due to an ambiguity in the semantic dependencies.

5.3 Anti-Superiority effects

• In Eastern Cham, wh-fronting patterns as usual topic and focus-fronting

• This results in apparent Anti-Superiority effects (38-39; cf. the introduction)

• Wh-phrases are in-situ and do not move to Spec-CP at LF (cf. Reinhart 1998)

• Anti-Superiority effects result directly from the locality of the \([\text{ID:dep}]\) feature on \(C^0\)
5.4 Long-distance fronting restriction

- Adger and Ramchand (2005) demonstrate that only $C([\Lambda, \text{id}: \text{dep}])$ may mediate long-distance dependencies, given that checked features are visible across phase edges (Pesetsky and Torrego (2001)).
- In Scottish Gaelic, $a ([\Lambda, \text{id}: \text{dep}], \text{gum} ([\Lambda])$

$$\text{(40)} \quad \text{An duine a thuirt e gum bhuaile e}$$

The man C-REL said he that strike he
‘The man that he said he will hit?’ [A & R 2005: (46)]

$$\text{Gaelic}$$

$$\text{(41)} \quad \text{An duine a thuirt e a bhuaileas e}$$

The man C-REL said he THATC-REL strike-REL he
‘The man that he said he will hit?’ [A & R 2005: (48)]

- $[\text{id}: \text{dep}]$ cannot maintain locality and be mediated by an intermediate $C^0$
- Multiple long-distance dependencies are predicted to be ungrammatical

$$\text{(42)}$$

$$\text{[ C([ID]) [ C([ID]) [ ... [ C([ID]) [ C([ID]) [ pro([ID]) ... V ... pro([ID])]]]]]]]}$$

$$\text{(43)}$$

$$\text{[ C([ID]) [ C([ID]) [ ... [ C([ID]) [ C([ID]) [ pro([ID]) ... V ... pro([ID])]]]]]]]}$$

- As for Eastern Cham, consider a set of control verbs like ‘invite’, ‘ask’, and ‘wish’
- As a surface diagnostic, these verbs do not permit fronting of an object to an intermediate position (44-46)

$$\text{(44)} \quad \text{saman ?a {*} ken ni may num {bi năn}}$$

Saman invite Kenny come drink beer DEM
‘Saman invited Kenny to come drink this beer.’ [DPNS_20150623]
(45) kiệt ŋi {⁎} kẹn ni bāŋ {lo ni} 
Kiệt ask Kenny eat meat DEM 
‘Kiệt asked Kenny to eat this meat.’ [TDK_20150625]

(46) kiệt cʊŋ {⁎} kẹn ni bāŋ {lo ni} 
Kiệt wish Kenny eat meat DEM 
‘Kiệt wished Kenny would eat this meat.’ [TDK_20150625]

• These matrix verbs allow multiple topics/foci (47-49)

(47) bi nān, thay saman ?a may jum 
beer DEM who Saman invite come drink 
‘This beer, who did you invite to come drink?’ [DPNS_20150623]

(48) lo nān, thay kiệt ŋi bāŋ 
meat DEM who Kiệt ask eat 
‘This meat, who did Kiệt ask to eat?’ [TDK_20150625]

(49) lo nān, thay kiệt cʊŋ bāŋ 
meat DEM who Kiệt wish eat 
‘This meat, who did Kiệt wish to eat?’ [TDK_20150625]

• Presumably not long-distance dependencies, but embedded TP’s

• Locality of apparent multiple long-distance dependencies can be respected

(50)

\[
\begin{array}{c}
\text{C([uid:dep])} [ \text{C([uid:dep])} T_P [ \text{DP}_{\text{subj}} V \ldots T_P [ \text{pro([id:dep])} \ldots V \ldots \text{pro([id:dep])}])] \\
\end{array}
\]

• By contrast, there is a set of embedding verbs, like ‘say’, ‘think’, and ‘be afraid of’

• These verbs do allow for intermediate fronting of objects (51-53)

(51) t̥ăhl̥ăʔ dom {} kẹn ni bāŋ {lo mɔ ni} 
1SG say Kenny eat meat cow DEM 
‘I said that Kenny ate this beef.’ [PHTN_20150624]
(52) kiệ́t nɨŋ  {kɛn ni băŋ {lɔ ni}
Kiệt think Kenny eat meat DEM
‘Kiệt thought that Kenny ate this beef.’ [TDK_20150625]

(53) tāhľāʔ  hoɛyʔ  {kɛn ni băŋ {lɔ ni}
1SG be.afraid.of Kenny eat meat DEM
‘I am afraid of Kenny eating this meat.’ [TDK_20150625]

• It is precisely these verbs that do not allow multiple phrases to front (54-56)

• The analysis parallels (42-43) above: multiple intermediate C₀’s are invariably ungrammatical

(54) *lɔ mɔ ni, thay hi dom băŋ
meat cow DEM who 2SG say eat
‘This beef, who did you say ate?’ [PHTN_20150624]

(55) *lɔ ni, thay kiệ́t nɨŋ băŋ
meat DEM who Kiệt think eat
‘This meat, who did Kiệt think ate?’ [TDK_20150625]

(56) *lɔ ni, thay kiệ́t hoɛyʔ  băŋ
meat DEM who Kiệt be.afraid.of eat
‘This meat, who is Kiệt is afraid of eating?’ [TDK_20150625]

6 Conclusion

• Eastern Cham exhibits an apparent extraction asymmetry with topic and focus-fronting

• This data is best formalized by Adger and Ramchand (2005)’s [ID] feature framework

• This framework naturally accounts for the following data:
  – Non-identity effects
  – Interactions with resumptive pronouns
  – Anti-Superiority effects
  – Long-distance dependency restrictions
• I propose that this Eastern Cham data adds to the empirical coverage of the [ID] feature framework, both cross-linguistically and in terms of construction (i.e. topic and focus)

• Further research should address if relative clauses behave in the same way, as expected from Irish and Scottish Gaelic. Additionally, more research on similar phenomena in other languages, especially wh-in-situ languages is needed to determine how to situate the Eastern Cham data cross-linguistically.
References


Thurgood, Graham. 1999. *From ancient cham to modern dialects: Two thousand years of language contact and change*. University of Hawai‘i Press.