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 [TOP] and [FOC] features in Rizzi (1997), Miyagawa (2010); anaphora and contrast features in López (2009)

(1) ***A   mí dinero*** *Juan nunca me   deja.*
    DAT me money Juan never CL.dat lends
    'Juan never lends me money.' [López (2009): (2.20a)]   CATALÁN

(2) ***Dinero, a   mí,*** *Juan nunca me   deja.*
    money   DAT me Juan never CL.dat lends
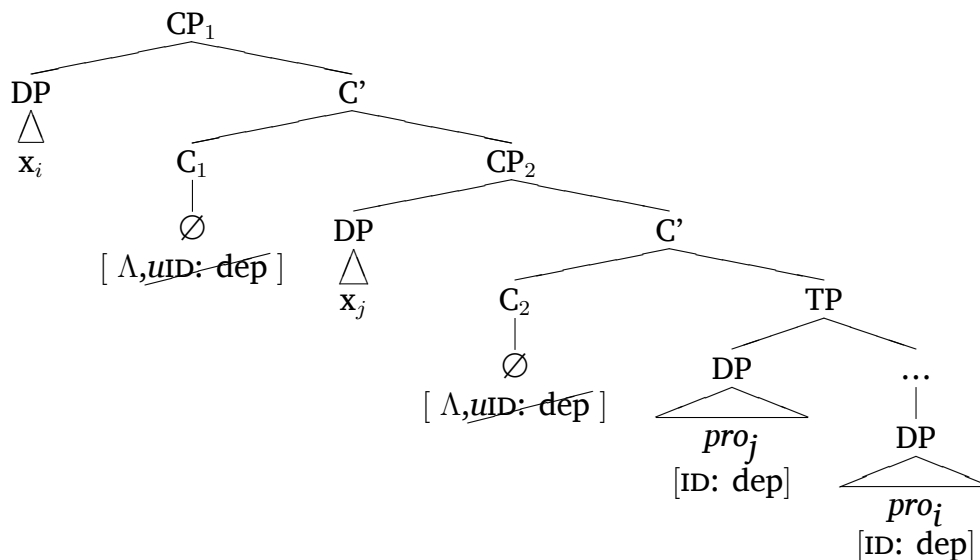   'Juan never lends me money.' [López (2009): (2.20b)]   CATALÁN

- *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)]   BULGARIAN

(4) ****Kogo koj** *običa?*
whom who loves

INTENDED: 'Who loves whom?' [Bošković (2002): (11b)]   BULGARIAN

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

(5) **krɨy ni, mohammad hu bǎŋ** O_{TOP} S_{FOC} V
orange DEM Mohammad FOC eat

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

(6) ****mohammad, krɨy ni hu bǎŋ** $*S_{TOP}$ O_{FOC} V
Mohammad orange DEM FOC eat

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

- A novel implementation of Adger and Ramchand (2005)'s [ID] 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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[2]I will primarily use the term 'fronting' here to describe apparent movement/extraction to be theoretically noncommittal.

[3]Orthography 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.

(7)

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                        CP₁
             ┌───────────┴──────────────┐
            DP                          C'
            △                ┌───────────┴──────────────┐
            xᵢ              C₁                          CP₂
                            │              ┌─────────────┴──────────────┐
                            ∅             DP                            C'
                       [ Λ,uID: dep ]     △              ┌──────────────┴──────────┐
                                          xⱼ            C₂                          TP
                                                        │              ┌────────────┴────────┐
                                                        ∅             DP                    ...
                                                   [ Λ,uID: dep ]      △                     │
                                                                      proⱼ                   DP
                                                                    [ID: dep]                △
                                                                                            proᵢ
                                                                                          [ID: dep]
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- 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 *p̥ɔ*

– Note: *wh*-phrases may be topics (see data in Baclawski (2015))

(8) *ʔiŋ ʔ̥ɔŋ,*   *ɲu*   *ŋaʔ*   *piŋi*   *lo*
     ing-aong   3SG   cook   delicious   very

‘The ing-aong [frog sp.], he cooks very well.’ [HL_20151127]

(9) *thay,*   *plɔh*   *zut*   *ʔ̥a*
     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) *ɲu*   *ŋaʔ*   *(ʔiŋ ʔ̥ɔŋ)*   *piŋi*   *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 t̥hɨn*   *hu*   *ăla*   *cŏh*
      monkey   FOC   snake   bite

‘It was the monkey the snake bit.’ [MST_20141029]

SPEAKER: “It was exactly the monkey that the snake bit.”

(12) *hɨ*   *hu*   *cŭʔ*   *pǎtaw*   *mǎtay*
      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*   *t̥ɔʔ*   *băŋ*   *lɔ*   *nuʔ*   *(*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) **_krɨy   ni,   mohammad hu   băŋ_** O_{TOP} S_{FOC} V
     orange DEM Mohammad FOC eat
     'This orange, it's Mohammad who ate.' [MST_20141203]

(15) **_*mohammad, krɨy   ni   hu   băŋ_**   *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) **_pătɔ, hu   ʈom   raŋ   alamin khăn lay? mătay_**
     king   FOC how.many person Alamin tell   that die
     'The king, how many people did Alamin tell that (he) died?'
     [MST_20150301] $S2_{TOP}$ $O1_{FOC}$ $S1$ $V1$ $V2$

(17) **_*ʈom   raŋ,   pătɔ hu   alamin khăn lay? mătay_**
     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]   *$O1_{TOP}$ $S2_{FOC}$ $S1$ $V1$ $V2$

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

(18) **_biː   năn, thay pɔ   saman ʔa   may   ɲum_**
     beer DEM who ̥TOP Saman invite come drink
     'This beer, who did Saman invite to come drink?' [DPNS_20150623]

(19) **_*thay pɔ   biː   năn, saman ʔa   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)

(20) $[_{\text{TOP}}[\text{XP}_i \text{ TOP/FOC}[\text{XP}_j [\dots x_j \dots \text{V} \dots x_i]]]]$

(21) $*[_{\text{TOP}}[\text{XP}_j \text{ TOP/FOC}[\text{XP}_i [\dots x_j \dots \text{V} \dots x_i]]]]$

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: $C^0([\Lambda] \dots pro([\text{ID}: \phi])$

    - Syntactic dependency: a. $C^0([\Lambda, u\text{ID}:\text{dep}]) \dots pro([\text{ID}: \_\_])$

    - (via Agree): $\rightarrow$ b. $C^0([\Lambda, u\text{ID:dep}]) \dots pro([\text{ID}: \text{dep}])$

- Note, [ID:dep] probes locally (22-23)
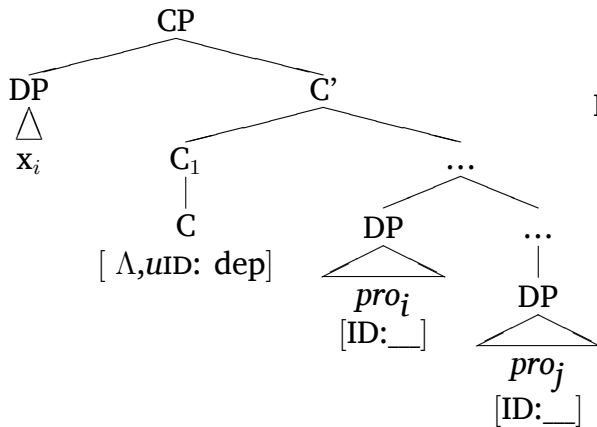
(22)   (23)
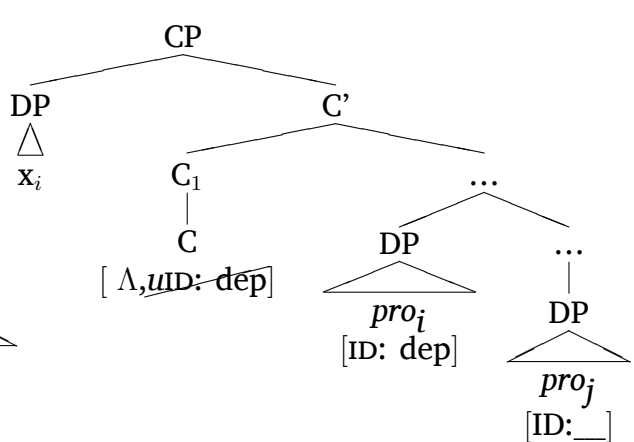
- Cross-linguistic variation arises in feature assignment to C^0 and *pro*
  - Cf. *aN* ([Λ]) and *a* ([Λ, *u*ID: dep]) in Scottish Gaelic
  - *pro*([ID:__]) may be null (Irish) or overt (Welsh: *-e* '3SG'; São Tomense Creole (e.g. *i* '1SG')

4.1   The [ID] feature in Eastern Cham

- There are two null C^0: C([Λ]) and C([Λ, *u*ID: 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)
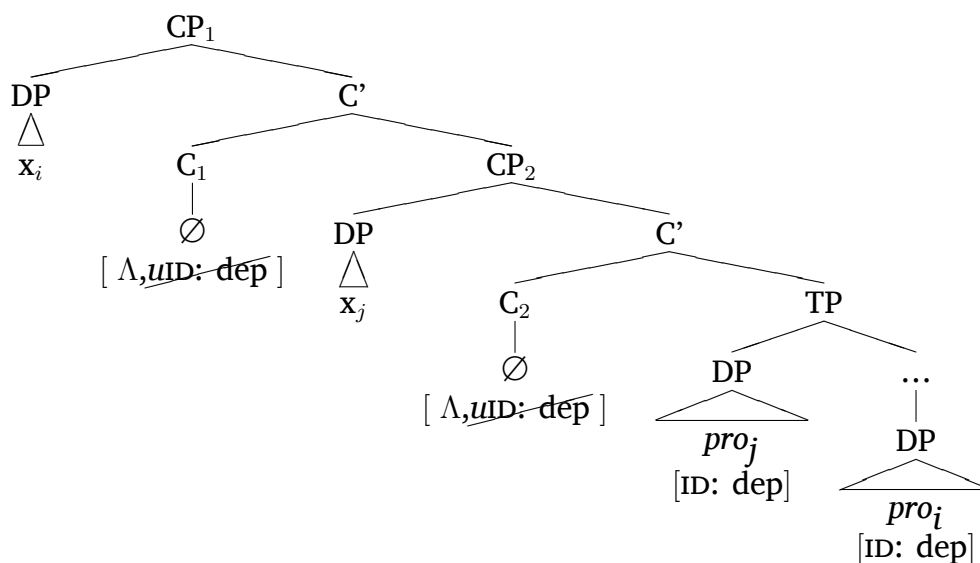
5 Predictions

- 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[4]
- Movement tests imply that fronted topics/foci are base-generated:
  - Islands may be violated (here, adjuncts and complex NP)[5]
  - Adger and Ramchand (2005) predict semantic dependencies; note the resumptive pronoun in (25)

(25) ***ŭraŋ hǎlay,*** *hɨ plɛ̆h naw kǎyua hɨ bŏh (ɲu)*
person which 2SG leave go because 2SG see 3SG
'Which person did you leave because you saw?' [MST_20141008]

(26) ***ṭom raŋ ǎnɨ̆ʔ sɛh*** *ɲu klǎʔ pǎtɔ kǎ ɲu pǎtɔ*
how.many person CLF student 3SG quit teach because 3SG teach
'He quit because he taught how many students?' [MST_20141022]

(27) ***hu ṭom raŋ,*** *hɨ khan prŭʔ 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]

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[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 *plɛ̆h* 'leave' and *klǎʔ* '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$_i$}, saw   ɲu   tăkri$_i$ kĕʔ   {*}*
      Mohammad   dog 3SG like   bite

      'Mohammad$_i$, the dog that he$_i$ likes bit.' [MST_20150426]

- Perhaps not surprising for topicalization, idioms are not reconstructible

(29) *#ḵlay,   ɲu   naw   çuaʔ*
      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) ***thay$_i$,   hɨ   tăkrɨ   (ɲu$_i$)***
      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) ****thay   hḁ̆ḵĕt,   ɲɨ̆m*** $*S_{FOC}$ O_{TOP} V
      who   what   borrow

      INTENDED: 'Who borrowed what?' [MST_20141022]

(32) ***thay$_i$ hḁ̆ḵĕt,   ɲu$_i$ ɲɨ̆m*** S_{FOC} O_{TOP} RP V
      who   what   3SG borrow

      'Who borrowed what?' [MST_20141022]

(33) ***thay   hḁ̆ḵĕt$_i$,   ɲɨ̆m   nă̆n$_i$*** S_{FOC} O_{TOP} 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)

(34) [XP [C([Λ]) [XP$_j$ [C([Λ,*u*ID:dep]) [pro$_i$([ID:ϕ]) …V .. pro$_j$([ID:dep])]]]]]

(35) [XP$_i$ [C([Λ,*u*ID:dep]) [XP$_j$ [C([Λ]) [pro$_i$([ID:dep]) …V .. pro$_j$([ID:ϕ])]]]]]

- However, the sentence is severely degraded if there are two resumptive pronouns, perhaps due to an ambiguity in the semantic dependencies

(36) ?**thay$_i$ hǎ ̣kět$_j$, ɲu$_i$** ɲĭm   **nǎn$_j$**   ?S_{FOC} O_{TOP} RP V RP
     who   what   3SG borrow DEM
     INTENDED: 'Who borrowed what?' [MST_20141022]

(37) *? [XP$_i$ [C([Λ]) [XP$_j$ [C([Λ]) [pro$_i$([ID:ϕ]) …V …pro$_j$([ID:ϕ])]]]]]

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)

(38) **ḳět, thay hu** play O_{TOP} S_{FOC} V
     what   who   FOC buy
     'Who is it that bought what?' [BT_20141107]

(39) *****thay, ḳět hu** play   *S_{TOP} O_{FOC} V
     who   what   FOC buy
     INTENDED: 'What is it that who bought?' [BT_20141107]

- *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 [ID:dep] feature on C^0

5.4   Long-distance fronting restriction

- Adger and Ramchand (2005) demonstrate that only C([Λ, ID: dep]) may mediate long-distance dependencies, given that checked features are visible across phase edges (Pesetsky and Torrego (2001))

- In Scottish Gaelic, *a* ([Λ,*u*ID: dep]), *gum* ([Λ])

(40) **An   duine   **a**   thuirt   e   **gum**   bhuail   e*
    the   man   C-REL   said   he   that   strike   he
    'The man that he said he will hit?' [A & R 2005: (46)]   GAELIC

(41) *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)]   GAELIC

- [ID: dep] cannot maintain locality and be mediated by an intermediate C^0

- Multiple long-distance dependencies are predicted to be ungrammatical

(42)

[C([ID]) [C([ID]) […[C([ID]) [C([ID]) [pro([ID]) …V .. pro([ID])]]]]]]
                                    x

(43)

[C([ID]) [C([ID]) […[C([ID]) [C([ID]) [pro([ID]) …V .. pro([ID])]]]]]]
                                    x

- 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)

(44) *saman   ʔḁ   {*}   kɛn ni   may   ɲum   {**bi   năn**}*
    Saman   invite   Kenny   come   drink   beer   DEM
    'Saman invited Kenny to come drink this beer.' [DPNS_20150623]

(45) *kiệt ŋi {*} kɛn ni băŋ {lɔ   ni}*
Kiệt ask   Kenny eat meat DEM

'Kiệt asked Kenny to eat this meat.' [TDK_20150625]

(46) *kiệt cɔŋ {*} kɛn ni băŋ {lɔ   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   năn, thay** *saman ʔa   may   ɲum*
beer DEM who Saman invite come drink

'This beer, who did you invite to come drink?' [DPNS_20150623]

(48) **lɔ   năn, thay** *kiệt ŋi   băŋ*
meat DEM who Kiệt ask eat

'This meat, who did Kiệt ask to eat?' [TDK_20150625]

(49) **lɔ   năn, thay** *kiệt cɔŋ   băŋ*
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)

[C([*u*ID:dep]) [C([*u*ID:dep]) $_{TP}$[DP$_{subj}$ V … $_{TP}$[pro([ID:dep]) …V .. pro([ID:dep])]]]]

- 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) *t̪ăhl̪ăʔ dom {} kɛn ni băŋ {lɔ   mɔ   ni}*
1SG   say   Kenny eat meat cow DEM

'I said that Kenny ate this beef.' [PHTN_20150624]

(52) *kiệt niŋ {} kɛn ni băŋ {lɔ ni}*
Kiệt think Kenny eat meat DEM
'Kiệt thought that Kenny ate this beef.' [TDK_20150625]

(53) *ʈăhḷăʔ 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 C^0's are invariably ungrammatical

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

(55) **lɔ ni, thay kiệt niŋ băŋ*
meat DEM who Kiệt think eat
'This meat, who did Kiệt think ate?' [TDK_20150625]

(56) **lɔ ni, thay kiệt 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.

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