

Two Types of Variable Elements in Hmong Anaphora*

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1 Introduction

- Hmong¹ is like Thai (Lasnik 1989; Narahara 1995), Vietnamese (Lasnik 1989; Narahara 1995), San Luis Quiavini Zapotec (SLQZ, Lee 2003), and Quiégolani Zapotec (QZ, Black 2000) in that it apparently allows pronouns and R-expressions to be bound as reflexives:

(1) a. Nwgi yeej qhuas nwgi.
3SG always praise 3SG
'He always praises himself.'

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¹The Hmong data in this paper are from Mong Leng (also called Green Hmong, Blue Hmong, Blue Meo, Hmong Njua, etc.), a dialect of Hmong spoken by around 1,000,000 speakers in Southern China, Vietnam, Laos, Thailand, and various western countries (due to the Hmong diaspora from Laos following the "Secret War" there). Hmong is a member of the Far Western Hmongic group of the Western Hmongic branch of the Hmongic subfamily, which is, in turn, a member of the Hmong-Mien family. The wider genetic affiliations of Hmong-Mien are undetermined.

Like other members of the Hmong-Mien family, Mong Leng is tonal, having 7 contrastive tones. In the RPA orthography used in this paper (and by most Hmong in the West), tones are represented by letters at the end of syllables (-b, -j, -v, -Ø, -g, -s, and -m). There are other aspects of this orthography that the naive linguist may not find completely transparent. For example, doubled vowels represent the presence of nasalization or a velar nasal coda. For a good introduction to the sounds and orthographic representation of the closely related Hmong Daw (White Hmong) dialect, see Ratliff (1992). Mong Leng has several sounds not present in Hmong Daw, and these are represented here in the conventional Mong Leng adaptation of the RPA orthography. The only important differences are as follows: <dl> [tɬ ~ kɬ], <dlh> [tʰɬ ~ kʰɬ], <ndl> [ntɬ ~ ɲkɬ], <ndlh> [ntʰɬ ~ ɲkʰɬ], and <aa> [aŋ ~ ā].

- b. Puabi tsuas yog xaav txug puabi.
3PL only is think about 3PL
'They only think about themselves.'
- c. Txivi yeej qhuas txivi.
Father always praise father
'Father always praises himself.'
- d. Pov_i yeej qhuas Pov_i.
Pao always praise Pao
'Pao always praises himself.'
- e. Puabi xaav has tas Maiv_j tua Maiv_j.
3PL think say that May kill May
'They think that May killed herself.'

1.1 Some Past Analyses

- These appear to be violations of the generalizations described in classical binding theory by Conditions B and C.
- Earlier investigations (couched in classical binding theory) have used similar data in Thai (Lasnik 1989) and Quiégolani Zapotec (Black 2000) to argue that Condition C (and perhaps Condition B) were parametric.
- More recently, Lee (2003) has argued that such bound "pronouns" and "R-expressions" are actually variable copies.

1.2 Current Proposal

- The current research modifies and extends Lee's account, arguing that these variable copies may be treated as instances of a single, phonologically empty lexical item and that its properties may be described in terms of Safir's (2002a; 2002b) Form to Interpretation Principle (FTIP), a competitive principle governing dependence relations.
- This anaphoric element is only "variable" in the following senses:
 - Its referent is determined by its antecedent (it cannot independently refer).
 - Its phonological form is determined by its antecedent.
- Such elements are to be distinguished, in Hmong, from a more prototypical class of variables. These are bound from A'-positions (typically topic phrases) in order to allow distributive interpretations.

- (2) a. *dlaabtsi los kuv muab pro.*
 what TOP 1SG give
 ‘I’ll give you anything.’
- b. *txhua tug tub hluas phemfwv nwg txiv.*
 every CLF boy youth admire 3SG father
 ‘Every boy admires his father.’

- The FTIP appears to be inadequate, by itself, to predict the relationships between Hmong A'-bound variables and their antecedents. However, competitive principle involving the same lexical property (dependence) can describe many of the observed data.

2 Bound Pronouns and R-Expressions: The Variable Anaphor

2.1 Parametric Condition C accounts are inadequate

- Earlier approaches to bound pronouns and names have held that Condition C is parametric (Lasnik 1989; Black 2000).
- Condition C, in these accounts, is not set in languages that allow bound names.

2.1.1 Pronouns cannot bind names

- However, in languages that allow bound names, only names can bind names (pronouns *cannot* bind names).
 - This can be seen in Hmong:
- (3) a. *Nwg_i yeej qhuas Pov_{*i/j}.*
 3SG always praise Pao
 ‘He always praises Pao.’
 *‘Pao always praises himself.’
- b. *Nwg_i yeej qhuas Txiv_{*i/j}.*
 3SG always praise Father
 ‘He always praises Father.’
 *‘Father always praises himself.’

2.1.2 Hierarchies of referentiality

- To account for such phenomena, Lasnik (1989) proposed that anaphoric elements can vary in their referentiality, and that referential elements (names) cannot be bound as referential elements (e.g. pronouns).

- This notion of referentiality was extended into a kind of hierarchy by Narahara (1995).
- However, such a proposal does not make the right predictions for Hmong (or Thai, SLQZ, and Quiegolani Zapotec).
- This hypothesis seems to predict that if pronouns can bind pronouns in Domain D, names should also be able to bind pronouns in Domain D.

2.1.3 Names cannot bind pronouns locally

- This is false:
- (4) a. *Pov_i yeej qhuas nwg_{*i/j}.*
 Pao always praise 3SG
 ‘Pao always praises him.’
 *‘Pao always praises himself.’
- b. *Txiv_i tua nwg_{*i/j}.*
 Father kill 3SG
 ‘Father killed him.’
 *‘Father killed himself.’

2.1.4 Names cannot bind non-identical names

- Furthermore, such an account would seem to predict that R-expressions can freely bind R-expressions (since they do not differ in “referentiality.” This is also false²:
- (5) a. *Tug xibfwb_i qhuas tug xibfwb_{*i/j}.*
 CLF teacher praise CLF teacher.
 ?‘The teacher praised himself.’
 ‘The teacher praised the (other) teacher.’
- b. *Tug xibfwb_i qhuas Pov_{*i/j}.*
 CLF teacher praise Pao
 ‘The teacher praised Pao.’
 *‘Pao, the teacher, praised himself.’
- c. *Pov_i yeej qhuas tug xibfwb_{*i/j}.*
 Pao always praise CLF teacher
 ‘Pao_i always praised the teacher_j.’
 *‘Pao_i always praised himself, the teacher_j.’

²Actually, it will later be seen that classified nouns can neither bind nor be bound in this construction. However, this does not seem to be a prediction of the parameterized binding theory being discussed here, so these examples are still useful.

- There are even more damning data on this front.
 - In Hmong society, an adult male has two names, one given at birth (*npe hluas* ‘young-name’) and one given by his father-in-law after he has a few children (*npe laug* ‘old-name’).
 - This two names can refer to exactly the same person at exactly the same time.
 - However, they cannot be bound by one another:
- (6) a. Kub npe laug hu ua Tshuv-Ntxaij.
Kou name old call do Chu-Ndzai.
‘Kou’s old-name is Chu-Ndzai.’
- b. Kub_i yeej thuam Tshuv-Ntxaij^{*i/j}.
Kou always criticize Chu-Ndzai
‘Kou_i always criticizes Chu-Ndzai.’
*‘Kou_i always criticizes himself.’

2.1.5 Pronouns cannot bind non-identical pronouns

- Furthermore, the exhaustive pronoun *suavdlawg* ‘everybody’ may bind *suavdlawg*, but not the plural pronoun *puab* ‘3PL’.
- (7) a. Suavdlawg_i yeej qhuas suavdlawg_i.
everyone always praise everyone.
‘Everyone (as a group) always praises themselves (as a group).’
- b. Suavdlawg_i yeej qhuas puab^{*i/j}
everyone always praise 3PL
‘Everyone (as a group) praises them (a different group).’
*‘Everyone praises themselves.’
- These are an instances of what Lee (2003) has called *the identical antecedent requirement*.
 - In languages that allow bound pronouns and R-expressions of this type (as is also shown by data from Thai, Vietnamese, and SLQZ and QZ), the bound name or R-expression must be identical to its antecedent.
 - This important generalization is missed by the parameterized account framed in classical binding theory.
 - It also seems redundant to maintain Conditions A, B, C and a hierarchy of referentiality, especially since, as Narahara (1995) argues, Condition C effects can basically be reduced to epiphenomenal effects of such a hierarchy.

2.2 Bound names/pronouns and Safir’s FTIP

2.2.1 Introducing the FTIP

- There have been many subsequent attempt to relate generalizations about “referentiality” to the binding properties of pronouns and other anaphoric elements.
- One recent attempt is the *Form to Interpretation Principle* (Safir 2002a,b):

(8) **Form to Interpretation Principle (FTIP)**
If x c-commands y and z is not the most deperdent for available in position y with respect to x, then y cannot be directly dependent on x (Safir 2002b:16)
- For Safir, dependence is a lexical property apparently separate from the semantics of the item under examination.
- The FTIP acts as a replacement for Conditions B and C of binding theory.
- Condition A is replaced by a requirement called Local Antecedent Licensing (LAL), which requires that anaphors (lexical items specified as anaphors) have a licencing antecedent in Domain D.

2.2.2 Dependent reference versus independent coreference

- Safir also draws a distinction between independent coreference and dependent reference (and it is dependent reference that is regulated by the FTIP).
 - Thus, Safir is able to justify the grammaticality of sentences like (9):
- (9) a. Even Alfred says that Alfred is crazy.
b. Even Alfred says that Alfred is crazy, and more surprising, even Irv does.
- The FTIP only regulates dependent reference.
 - In (9b), only a strict (no sloppy) reading is available. That is to say, the elided clause cannot be interpreted as meaning that Irv thinks that Irv is crazy, but only that he thinks that Alfred is crazy.
 - Safir uses this type of elision as a diagnostic for identifying dependent reference.
 - “Insofar as sloppy readings are dependent ones, the distribution of sloppy readings for reflexives in ellipsis contexts can be used as evidence that reflexivity is a dependency relation” (Safir 2002a).

2.2.3 Hmong bound pronouns and numerals do not independently refer

- We cannot treat Hmong pronoun and name reflexives as instances of independent coreference, not just because they have reflexive interpretations, but because they allow sloppy readings:
- (10) a. Koj_i yeej qhuas koj_i; nwg_j los kuj ua le hab.
2sg always praise 2sg; 3SG TOP also do as too
'You always praise yourself, and so does he.'
- b. Pov_i yeej qhuas Pov_i; Maiv_j los kuj ua le hab.
Pao always praise Pao May TOP also do as too
'Pao always praises himself, and so does May.'
- The same is also true of SLQZ and Thai, where (according to Lee) only sloppy readings are licensed (Lee 2003):
- (11) a. B-gwi'ih Gye'eihlly lohoh Gye'eihlly zë'cy cahgza' Li'eb.
PERF-look Mike at Mike likewise Felipe
'Mike looked at himself, and Felipe did too.'
*'Mike looked at himself, and Felipe looked at Mike' [SLQZ]
- b. John koonnat khong John lae Peter ko muankan.
John shave of John and Peter the same
'John shaved himself, and Peter did too.'
*'John shaved himself and Peter shaved John. [Thai]
- In contrast, when a name is not bound, only a strict reading is allowed, illustrating a clear contrast in the properties of bound and unbound names:
- (12) a. Pov nyam Maiv; Maiv los kuj ua le.
Pao like May May TOP also do as
'Pao likes May and May does too (likes May).'
- b. Pov hab Tub yeej ib-txwm ua yeebncuab. Pov ntsub Tub; Tub los kuj
Pao and Tou always always do enemy Pao hate Tou Tou TOP also
ua le hab.
do as too
'Pao and Tou have always been enemies. Pao hates Tou and so does Tou
(hate Tou).'
- This being the case, Safir's FTIP seems unable to explain the distribution of dependent readings in Hmong.
 - Only the most dependent form available in a particular syntactic context should be able to receive a dependent reading.

- This would require that the name *Pov* is the most dependent form available when *Pov* is a c-commanding antecedent, but that *nwg* is the most dependent form available when *nwg* is a c-commanding antecedent.

2.3 Proposed solution: variable anaphors as instances of a lexical item

- There is a way to accommodate the Hmong data while still retaining the considerable advantages of a competitive algorithm like Safir's.
- We may do this by borrowing a card from Felicia Lee, and proposing that what appear to be bound names and pronouns in languages like Hmong, Thai, Vietnamese, QZ, and SLQZ are not names and pronouns at all, but variable elements of some type.

2.3.1 Properties of α

- I propose that these elements are not syntactic variables of some kind, but base-generated instances of a universally available anaphoric lexical item (on par with *PRO* and *pro*, as treated by Safir 2002a).
 - This item, which I will call α , is not specified for phonological form. Rather than surfacing as null (like *PRO* and *pro*) its form is spelled out as that of its antecedent (thus accounting for the *identical antecedent requirement* identified by Lee).
 - We can then see the source for two different readings in sentences like (13):
- (13) a. Pov_i yeej qhuas Pov_i.
Pao always praise α
'Pao always praises himself.'
- b. Pov_i yeej qhuas Pov_j.
Pao always praise Pao
'Pao always praises Pao.' (there are two Paos)
- In (13a), the second *Pov* is actually α . Since it is the most dependent form available here, it receives a dependent reading.
 - In (13b), the second *Pov* is base-generated *Pov*. Since it is not the most dependent form available here, it does not receive a dependent reading.

2.4 Some properties of α

2.4.1 Subject to Local Antecedent Licensing

- Lee (2003) suggests that “bound variable copies” in SLQZ can act as long-distance anaphors.
 - However, in Hmong, equivalents to her example sentences, while grammatical, seem best explained as examples of independent coreference.
- (14) a. Pov has tas Maiv nyam Pov.
Pao say that May like Pao
‘Pao said that May likes him.’
- b. Pov has tas Maiv nyam Pov; Tub los kuj ua le hab.
Pao say that May like Pao Tou TOP also do as too
‘Pao said that May likes him, and so did Tou (say that May likes Pao)’
*‘Pao said that May likes him, and so did Tou (say that May likes Tou)’.
- The unavailability of the sloppy reading in (14b) suggests that the relationship between the two instances of *Pao* in (14a) is one of independent coreference rather than dependence. That is, the second *Pao* is actually *Pao* rather than α .
 - This suggests that α requires a local, c-commanding antecedent. In Safir’s terminology, it is subject to Local Antecedent Licensing.

2.4.2 No lexical noun antecedents

- α cannot depend directly on lexical nouns *unless they are interpreted as names*.
- (15) dlev tum dlev.
dog bite dog.
‘Dogs_i bite dogs_j.
??‘Dog_i bit himself_j.’
*‘Dogs_i bite themselves_i.’
- Unclassified (bare) nouns in Hmong are interpreted as properties (as suggested by the first reading) rather than entities Bisang (1993).
 - As properties, nouns may not act as direct antecedents to α .
 - If nouns are interpreted as names, as in the second interpretation, then the dependent reading is possible, but somewhat strained.
 - If markers are added that specifically identify the noun as an epithet or name, the reflexive reading is improved:

- (16) a. quas-dlev_i tum quas-dlev_{i,j}.
IND-dog bite IND-dog
‘(The/a) dog bites itself.’
‘(The/a) dog bites a dog.’
- b. [nam dlev]_i tum [nam dlev]_{i,j}.
great dog bite great dog
‘The OI’ Dog bites itself.’
‘The OI’ Dog bites the (other) OI’ Dog.’

2.4.3 No classified or quantified antecedents

- The presence of a noun classifier causes a noun to be interpreted as an entity rather than a property.
 - In almost all cases, nouns must take classifiers in order to be quantified.
 - As in SLQZ, quantified nouns in Hmong may not participate in the bound R-expression reflexive construction. However, classified nouns may not participate either:
- (17) a. tug dlev tum tug dlev.
CLF dog bite CLF dog
?’The dog bit the dog.’
*‘The dog bit himself.’
- b. tug tuabneeg thuum tug tuabneeg.
CLF person criticize CLF person
?’The person criticized the person.’
*‘The person criticized himself.’
- For Hmong, it seems that these prohibitions against certain R-expressions acting as antecedents for α can be reduced to a single, simple, descriptive generalization:
- (18) **Generalization of the Distribution of Variable Anaphors**
The variable anaphor α may be licensed by pronouns and names, but not by R-expressions that are not names.

2.4.4 Distributed Reflexives in Hmong

- Of course, it is possible to have reflexive meanings distributed over properties or quantified groups of entities.
- Lee (2003) mentions two strategies for doing this, one which she associates with Thai, and another which she associates with SLQZ.

- In the Thai-like strategy, another reflexive anaphor is used in place of α (in Hmong, an anaphor constructed of a pronoun + *tug kheej* ‘CLF self’).
- (19) a. [Txhua tug tub hluas]_i yeej qhuas [nwg [tug kheej]]_i.
 every CLF boy young always praise 3SG CLF self
 ‘Every boy always praises himself.’
- b. [Peb tug kwv-tij]_i yeej qhuas [puab [tug kheej]]_i.
 three CLF brothers always praise 3PL CLF self
 ‘The three brothers always praised themselves.’
- c. dlev tum [puab [tug kheej]]
 dog bite 3PL CLF self
 ‘Dogs bite themselves.’
- In the second (SLQZ-like) strategy, the quantifier phrase or bare noun is topicalized, and binds the distributive pronoun *nyas*, which in turn binds α . That is to say, α depends upon *nyas*, which depends in turn upon the topic:
- (20) a. [Txhua tug dlev]_i mas nyas_i rov qaab pum nyas_i.
 every CLF dog TOP DIST return back see α
 ‘Every dog saw itself.’
- b. [Peb tug kwv-tij]_i mas nyas_i yeej qhuas nyas_i has tas [nwg [tug kheej]]_i zoo xwb.
 three CLF brother TOP DIST always praise *ana* say that 3SG CLF self good only.
 ‘Each of the three brothers praised himself saying that he alone was good.’
- c. tuabneeg mas nyas rov qaab qhuas nyas.
 people TOP DIST return back praise DIST
 ‘People praise themselves.’
- In these sentences, *nyas* is acting as a variable in a sense that α cannot: it is receiving a distributive reading.
 - The pronoun *nyas* is special in that it always receives a distributive interpretation (distributes the topic over some proposition). The other pronouns may also act as variables in this sense.
 - α is unique in that it is not this kind of variable. That is, it never receives a distributive reading directly.
 - It is to this other type of variable that we will turn next.

2.5 Summary

- We can analyze bound pronouns and R-expressions, in Hmong, as instances of the lexical item we have called α .
- In Safir’s terminology, α is the “most dependent form” available in the types of constructions we have discussed here.
- These variable anaphors cannot be bound from A’-positions (e.g., topics and quantified expressions). They also cannot be bound by R-expressions that are not names.
- In contexts where A’-binders are involved, other types of variable elements are involved. It is possible for such variables, which are dependent upon A’ elements, to bind α , thus allowing distributed reflexives.

3 Topic-bound variables

- Hmong pronouns, with the exception of α , can depend upon topics for reference.
- Take the following example (dependent forms are in boldface):

- (21) a. [Tug twg]_i los **nwg**_i nyam nwg_i.
 CLF which TOP 3SG like α
 ‘Anybody would like themselves.’
- b. [Tug twg]_i los **nwg**_i nyam *nwg*_{*i/j}.
 CLF which TOP 3SG like 3SG
 ‘Anybody would like him.’
- c. [Tug twg]_i los *nwg*_{*i/j} nyam **nwg**_i.
 CLF which TOP 3SG like 3SG
 ‘He would like anybody.’

- Example (21) gives three different possible readings of the same (surface) sentence. The interpretations given for (21b) and (21c) are possible, but require specific pragmatic contexts.
- It is thus possible for the anaphoric element in either the subject or object position to depend on the topic for reference.

3.1 This really is dependent reference

- That actual dependence is involved can be shown by ellipsis examples:

- (22) a. Tug twg los nwg nyam nwg; Maiv los kuj ua le hab.
 CLF which TOP 3SG like α May TOP also do as too
 ‘Anybody likes themselves; May does too (likes herself).’

3.2 *Pro* as a variable.

- The null pronominal can replace *nwg* in either subject or object positions:³

(23) a. [*Tug twg*]_i *los pro_i* *nyam nwg^{*i}_j*.
 CLF which TOP like 3SG
 ‘Anybody would like him.’

b. [*Tug twg*]_i *los nwg^{*i}_j* *nyam pro_i*.
 CLF which TOP 3SG like
 ‘He would like anybody.’

- In sentences of this type where *nwg* ‘3SG’ and *pro* are present, *pro* will always depend on the topic and *nwg* will always have disjoint reference.
- If both arguments of the main-clause verb are instances of *pro*, there are three possible readings:

(24) a. ? [*Tug twg*]_i *los pro_i* *nyam pro_i*.
 CLF which TOP like α
 ‘Anybody would like themselves.’

b. [*Tug twg*]_i *los pro_i* *nyam pro^{*i}_j*.
 CLF which TOP like
 ‘Anybody would like him.’

c. [*Tug twg*]_i *los pro^{*i}_j* *nyam pro_i*.
 CLF which TOP like
 ‘He would like anybody.’

- The first interpretation is marginal. The second interpretation is the default, but the third is perfectly acceptable as long as an appropriate context is provided.

3.3 The ability to act as a variable is a scalar lexical property

- If both arguments of the main-clause verb are identical in their properties, either of them (but not both of them) can depend directly upon the topic).
- If the arguments differ in their properties, one of them will depend upon the topic for reference and the other will be unable to do so.

³The astute reader will, at this point, ask why I have chosen to treat these empty elements as *pro*, rather than as traces left by the movement of the topic out of the argument positions (perhaps explaining—depending on one’s theory of dependent reference—the coreference between this element and the topic). One reason for the *pro* example should be clear: in (21) above, there are pronouns where are putative traces should be. It seems contrived to posit that the topic is base generated in topic position in (21), but moves to topic position in (23). For arguments regarding a similar analysis of Thai topics, see Hoonchamlong (1991) and Aroonmanakun (1999).

- In fact, this pattern is even more striking add a couple more types of elements to the mix: *yawg* ‘grandfather; man; Mister’ and *Pov* ‘Pao’.
- A summary of the resulting paradigm can be see in Table 1.

OBJECT	SUBJECT			
	<i>pro</i>	<i>nwg</i> ‘3SG’	<i>yawg</i> ‘Mister’	<i>Pov</i> ‘Pao’
<i>pro</i>	S/O/R?	S	S	S
<i>nwg</i> ‘3SG’	O	S/O/R	S	S
<i>yawg</i> ‘Mister’	O	O	S?/O?/R?	S
<i>Pov</i> ‘Pao’	O	O	O	—

Readings for [*Tug twg*] *los* SUBJECT *nyam* OBJECT.
 S = SUBJECT var. reading, O = OBJECT var. reading, R = refl. reading

Table 1: Distribution of dependent readings of *tug twg los* SUBJECT *nyam* OBJECT.

- The ability to act as a variable, in this construction, seems to be primarily a lexical property (not a result of structural configuration).
- The elements seem to fit into a competitive hierarchy, which could be compared in some ways to Safir’s hierarchies of dependence.
- In general, the most “dependent” elements are the ones with the least idiosyncratic information and the least featural content.
- This raises an important question: why does α never occur as an *A'*-bound variable? If the relevant lexical characteristic targeted by this phenomenon is the same as Safir’s dependence, and if α is the most dependent form, then why, in examples like (21a), is it *nwg* rather than α that depends directly upon the topic?
- Possible answer: α has a licensing requirement that precludes it from depending upon topics (and perhaps all other things in *A'* positions).
- Of course, there are additional complications. One of the most interesting is presented by a type of donkey sentences that occur in this construction:

3.4 Some Complications: Donkey Sentences

- However, this simple hierarchy does not elegantly describe every anaphoric pattern than can emerge in this construction.
- One of the most interesting of these patterns is the “donkey-sentence” pattern shown in (25):

(25) a. [*Tug twg*]_i *pum pro_j* *los [tug twg]_i* *yeej nyam pro_j*.
 CLF which see TOP CLF which always like
 ‘Whoever sees him will surely like him.’

b. [Tug twg]_i pum *pro*_j los **nwg**_{i/*j} yeej nyam *pro*_{j/*i}
 CLF which see LOS 3SG always like

‘Whoever sees him surely like him.’

c. [Tug twg]_i pum *pro*_j los **pro**_i yeej nyam *pro*_j.
 CLF which see TOP always like

‘Whoever sees him will surely like him.’

- In these sentences, the dependency relationships seem to be based upon a direct mapping of the argument positions of the topic clause and the main clause.
- These are similar in some respects to donkey sentences in Mandarin Chinese:

(26) Shei_i xian lai **shei**_i (jiu) xian chi.
 who first come who then first eat

‘Whoever comes first eats first.’ (Cheng and Huang 1996)

- Interestingly, it is not possible to translate sentence (25a) directly into Chinese:

(27) a. *Shei kan jian *pro*, **shei** (jiu) xihuan *pro*.
 who look see who then like

Intended: ‘Whoever sees (him), likes (him).’

b. Shei kan jian ta_j, **shei**_i/**pro**_i (jiu) xihuan ta_j.
 who look see 3SG who/*pro* then like 3SG

‘Whoever sees him, likes him.’ (Patrick Chew p.c.)

- However, it is likely that a similar principle governs the interpretation of these sentences in Hmong.
- These sentences are unlike the previous pattern in that dependent reference cannot be described in terms of lexical properties. A description of the phenomenon must refer to structural position or argument structure.

4 Conclusions and Directions for Further Research

- Bound names and pronouns in Hmong may be profitably analyzed as instances of a lexical item α , an anaphor underspecified for phonological form which therefore copies its form from that of its antecedent.
- (28) **Question:** What would this phenomenon look like if reanalyzed in terms of Hornstein’s (2001) representational view of anaphora, in which all coreference results from the existences of multiple copies of the same element?
- The “variable” α should be distinguished from variables bound from topics and other A' -bar positions, which often receive distributive dependent readings.

- α can only receive a distributive reading when this reading is mediated by a variable of the distributive (A' -bound) type.
- Dependence upon topics and other A' -elements seems to involve competition among potential variables within the numeration. The outcome of this competition may be determined by a property like or identical to Safir’s notion of dependence.
- This generalization, however, does not explain some Hmong donkey sentences, for which a different principle would have to be invoked.

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