Names as complex indices: On apparent Condition C violations in Thai

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Thai is known to mysteriously violate Condition C (Lasnik 1987):

(1) $Nít_1$ phûut wâa $Nít_1$ sàbàay.
       Nit say   COMP Nit comfortable
       'Nit said that she's comfortable.'

This paper argues that such apparent Condition C violations arise in Thai due to the exceptional semantics of Thai names: they are not constants but instead are complex indices, analogous to indexicals. This account highlights the success of Reinhart's Coreference Rule as a crosslinguistically robust account of Condition C. Furthermore, the Thai facts illustrate that proper names and kinship terms exhibit crosslinguistic variation in their semantics.

    Two generalizations refine our understanding of cases like (1), both due to Hoonchamlong 1991, who offers a novel binding condition to Thai to account for these facts.

    Generalization 1: Not all R-expressions can be bound in Thai; only *Pronominal R-Expressions* (PREs), which include names, kinship terms, and titles such as *aacaan* 'teacher.HON.' Thus, a complex demonstrative cannot be bound as it is a regular R-expression (cf. Larson 2006):

(2)   *$Nít_1$ phûut wâa [khon nań]$_{*1/2}$ sàbàay.
       Nit_1 say   COMP person that$_1$ comfortable
       'Nit said that that person's comfortable.'

PREs are neither epithets nor Imposters (Collins and Postal 2012): neither of which can be bound as in (1). Instead, PREs are predicates which consistently identify a single individual in context.

    Generalization 2: PREs can only be bound by an identical PRE, not a pronoun or R-expressions:

(3)   *[khon nán]$_1$/ khǎw$_1$ phûut wâa $Nít_{*1/2}$ sàbàay.
       person that$_1$/ 3P$_1$ say   COMP John comfy
       'That person$_1$/She$_1$ said that Nit$_{*1/2}$'s comfortable.'

Hoonchamlong dubs this constraint the Binder Identity Generalization (BIG).

    Existing accounts of Thai Condition C violations fail to account for both generalizations. First, Lee 2003 proposes that the bound PRE in (1) is a phonological copy in a bound variable structure. This accounts for the BIG, but it does not account for the exceptional behavior of PREs, as it predicts any element that can bind variables can be copied to the bindee. But quantifiers can't act as bound variables (4), nor can regular R-expressions (not shown):

(4) ???[Thúk khon]$_1$ phûut wâa   [thúk khon]$_1$ mây sàbàay.
       every CLF   say   COMP every CLF   NEG comfortable
       'Everyone$_1$ said that they$_{*1}$ aren't comfortable' (intended)

On the other hand, Larson (2006) focuses on the exceptionality of PREs, arguing that they are syntactic pronouns, or ϕPs. This accounts for PRE's exceptional behavior vs. regular R-expressions, but it cannot account for the BIG, because it predicts PREs should behave like pronouns. But unlike pronouns, PREs cannot be bound by quantifiers:

(5)   [phîi thúk khon]$_1$ phûut wâa   phǐi$_{*1/2}$sabaaj.
       old.sib every CLF   think COMP old.sib comfortable
       Only: '[Every older sibling]$_1$ thinks that I/you/she$_2$ is comfortable.'

(5) only allows a referential interpretation of the bound PRE, not a bound one, although *phîi* is a PRE and can bind itself when bare. Furthermore, if the bound PRE is replaced with a regular 3P pronoun like *khǎw* in (2), (3), and (5), bound variable interpretations are fine.

There are parallels between Thai PREs and indexicals (e.g. 'me' and 'you', Kaplan 1977) in that they are interpreted as contextually restricted variables. Thus, we analyze (1) as parallel to, e.g., *I think that I am comfortable* in English. We offer three arguments for this connection.

1. In Thai, PREs can refer to the speaker or addressee in argument position as the context allows. For example, (1) could be used by someone named Nit to talk about themselves, or by someone else addressing Nit, in contexts of casual familiarity. All PREs share this property. Otherwise only first and second person pronouns can be used in these contexts.

2. Neither indexicals (6) nor PREs (5) can receive bound variable interpretations (BVIs) when bound by quantifiers (Sudo 2012:140):

(6)　#Exactly one person$_1$ did my$_1$ homework(, namely me).

3. However, PREs and indexicals *can* get BVIs under focus (7) and ellipsis (not shown):

(7)　a.　Only I think that I am smart.　　　　　　　　　　　　　(Strict or sloppy)
　　　b.　Mii khɛ̂ɛ Nít thîi khít wâa Nít chàlàat.
　　　　　EXT just Nit REL think COMP Nit smart
　　　　　'Only Nit thinks that she's smart.'　　　　　　　　　　　(Strict or sloppy)

Bound 'I' in (7-a) and *Nít* in (7-b) can be bound or free when assessing focus values, either {x thinks that x is smart: $x \in D_e$} (sloppy) or {x thinks that I/Nit am smart: $x \in D_e$} (strict).

Analysis: To account for these parallels, I adopt the proposal of Sudo (2012, §10.1), that pronominal indices are ordered triples, members of $N \times TYPE \times \{①, ②, ③\}$, where N is a variable, TYPE is a semantic type, and $\{①, ②, ③\}$ are person features. So 'you$_i$' is $\langle i, e, ② \rangle$, written $i[②]$ for short. Assignment functions are subject to admissibility conditions which ensure $i[②]$=addressee(c). Call the role of person features the contextual restriction on the index. In Thai, predicates described by PREs, e.g. names and kinship terms, are contextual restrictions on indices:

(8)　a.　$[\![\text{Nít}_i]\!]^g = g(i[\text{Nit}]) = $ the individual called 'Nit' in c.
　　　b.　$[\![\text{phîi}_i]\!]^g = g(i[\text{old.sib}]) = $ the older sibling of the speaker in c.

Like 'speaker' and 'addressee', PREs are well-suited as contextual restrictions as they either identify individuals in particular contexts, or contain concealed indexicals, as in (8-b).

I further assume with Sudo that when an expression moves, enabling binding via predicate abstraction, the variable introduce in predicate extraction must include the entire complex index to bind its trace. As a result, moved indexicals (or PREs) can only bind indexicals (or PREs) with the same contextual restriction, as these expressions will have the same complex index:

(9)　Nít $\lambda_{1[Nit]}$ [$t_{1[Nit]}$ said that Nit$_{1[Nit]}$ is comfortable]

If quantifiers only abstract over simple indices, they cannot bind complex indices, explaining (5).

The BIG can now be attributed to the Coreference Rule (CR, Grodzinsky and Reinhart 1993), which attributes Condition C to a ban on coreference when an LF involving binding is semantically equivalent. Consider the following LF for (3), where the moved subject binds a simple variable:

(10)　that person λ_1 [t_1 said that Nit$_{1[Nit]}$ is comfortable]

Even though the index itself may be the same, the subject is unable to bind the complex index corresponding to *Nit*; only coreference is possible. Furthermore, if Nit was replaced with a pronoun, interpretable as a simple variable, binding is possible. As a result, Reinhart's CR bans coreference in (3), but not in (1)/(9). So if CR is our account of Condition C, Thai is no longer recalcitrant.

Sel. Refs: **Hoonchamlong, Y.** 1991 Some issues in Thai anaphora. U. Wisc., PhD. **Larson, M.**. 2006. The Thais that Bind. NELS 36. **Lee, F.** 2003. DOI: 10.1111/1467-9612.00057 **Sudo, Y.** 2012. dspace.mit.edu/handle/1721.1/77805.