The Participant-Pronoun Restriction: English and Vietnamese*

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Abstract—**In English and many other languages, speakers and addressees must be referred to by pronouns. However, this is not true of Vietnamese. We propose that this difference is due to a parameterization of Tanya Reinhart's Rule I. Our proposal requires that every root clause be analyzed as containing silent syntactic materials which encode information about the perspective of the sentence.**

Index Terms—**Rule I, perspectives, pronouns, Vietnamese**

I. PPR IS NOT UNIVERSAL

The meaing of (1a) cannot be expressed with (1b), and neither can the meaning of (2a) be expressed as (2b).

(1) a.   John said to Mary: "I will live here."
     b.   John said to Mary: "John will live here."

(2) a.   John said to Mary: "You will live here."
     b.   John said to Mary: "Mary will live here."

This is because John cannot use his own name to refer to himself, and neither can he use Mary's name to refer to Mary when he is speaking to her (cf. Reinhart 1983b). We state the generalization in (3).

(3) The Participant Pronoun Restriction (PPR)
     The speaker and the addressee must be refered to by pronouns.

It turns out that PPR is not universal. Specifically, it does not hold for Vietnamese. Thus, (4a) and (4b) can be synonymous, as can (5a) and (5b).[1]

(4) a.   Minh nói với Linh: "Tao sẽ   sống ở đây."
          Minh said to Linh   I   will live here
     b.   Minh nói với Linh: "Minh sẽ   sống ở đây."
          Minh said to Linh   Minh will live here

(5) a.   Minh nói với Linh: "Mày sẽ   sống ở đây."
          Minh said to Linh   you will live here
     b.   Minh nói với Linh: "Linh sẽ   sống ở đây."
          Minh said to Linh   Linh will live here

This shows that speakers and addressees can be referred to by names in Vietnamese.

[1]Note that by "synonymous" we mean 'truth conditionally equivalent,' abstracting from differences in social connotation. We come back to this issue in section VII.

We will propose an account for this difference between English and Vietnamese, and show that our account captures facts beyond those just presented.

II. PPR IS DERIVABLE FROM RULE I AND PH

Our starting point reaches back 35 years ago, when Tanya Reinhart published two papers about two closely related phenomena. The first is Reinhart (1983a) which argues that Condition C of the Binding Theory (cf. Chomsky 1981) should be derived from more basic principles. Consider (6), which is a Condition C violation.

(6) *Mary$_1$ said that Mary$_1$ would live here

Reinhart explains the unacceptability of (6) as arising from there being a "better" alternative made available by the grammar, namely (7).

(7) Mary$_1$ λ_1 said that she$_1$ would live here

In (6), the matrix and the embedded subject "co-refer," whereas in (7), the matrix subject "binds" the embedded subject.[2] Reinhart (1983a) proposes a preference principle, called "Rule I" in later works (cf. Grodzinsky & Reinhart 1993), which is given in slightly simplified form in (8).

(8) Rule I
     If coreference and binding are semantically indistinguishable, then use binding instead of coreference.

Since (6) and (7) are semantically indistinguishable, Rule I penalizes the former, causing it to be perceived as deviant.[3]

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[2]We take being bound by α to mean being co-indexed with and c-commanded by a λ-operator which is immediately dominated by the sister of α (cf. Heim & Kratzer 1998, Büring 2005). For present purposes, let us assume the following semantic rule for λ.

(i) $[\![\lambda_i \, \alpha]\!]^g = [\lambda x. \, [\![\alpha]\!]^{g^{[i \to x]}}(x)]$

[3] One virtue of Reinhart's account is its ability to predict contexts where Condition C can be felicitously violated. Consider (i).

(i)   Anne thinks Mary is great. Even Mary thinks Mary is great.

The word **even** triggers the presupposition that Mary having a certain property P is less likely than Anne having P. Here P is (iia), which results from coreference, and not (iib), which results from binding.

(ii)   a. $[\lambda x. \, x$ thinks Mary is great$]$
        b. $[\lambda x. \, x$ thinks x is great$]$

Since coreference and binding are semantically distinct in this case, Rule I does not kick in, hence (i) is acceptable.

Note that Reinhart's account presupposes that names cannot be bound, i.e. that (9) is not available in the grammar.[4]

(9) *Mary$_1$ λ_1 said that Mary$_1$ would live here

The second paper, Reinhart (1983b), argues for the following principle (our wording).

(10) Designation Coreference Convention (DCC)
      If a sentence is from the perspective of x, then x can only be referred to in that sentence with a pronoun.

An illustration of DCC is provided by the following German paradigm.

(11) a. Maria sagte, dass sie gleich zurückkomme. Sie /
          Maria said   that she soon   return.KONJ-1 She
          Maria kaufte   einen Stift.
          Maria bought.IND a   pen
          'Maria said that she would return soon. She bought a pen.'
      b. Maria sagte, dass sie gleich zurückkomme. Sie /
          Maria said   that she soon   return.KONJ-1 She
          *Maria kaufe   einen Stift.
           Maria buy.KONJ-1 a   pen
          'Maria said that she would return soon. She said she would buy a pen.'

Imagine (11a) and (11b) are spoken by Hans to Susanne. Changing the conjugation of the main verb in the second sentence from indicative to Konjunktiv I shifts its perspective from being a sentence from Hans to Susanne to one from Maria to whoever she was speaking to. Since the sentence is from the perspective of Maria, the DCC requires that Maria is referred to with a pronoun, rather than with a name.

We now discuss the relation betwee the two claims published by Tanya Reinhart in the same year. Let us call the sender and the receiver of a sentence ϕ the "perspective holders" of ϕ. Now, suppose that perspective holders are explicitly represented in the syntax. Specifically, assume (12),

(12) Performative Hypothesis (PH)
      Every declarative sentence ϕ is parsed as [α [MAKE [β [KNOW ϕ]]]].

where α and β are nouns refering to the perspective holders of ϕ. We assume, broadly leaning on the references in footnote 5, that the causative structure "α MAKE β KNOW ϕ" is the decomposition of information transferring ditransitive verbs such as **tell**. We will call α MAKE β KNOW the "perspective"

of the sentence which follows.[5]

Given PH, the following semantically indistinguishable LFs can be generated.[6]

(13) a. *~~Maria$_1$ MAKE Addressee KNOW~~ Maria$_1$ kaufe einen Stift
      b. ~~Maria$_1$ λ_1 MAKE Addressee KNOW~~ sie$_1$ kaufe einen Stift

Rule I penalizes (13a) against (13b), causing the relative deviance of the former. Thus, PH enables us to derive the facts in (11) from Rule I, making DCC redundant for their explanation.

Should we, on the basis of this result, dispense with DCC as a primitive of grammar? In the context of this question, it will be interesting to discuss a data point to which Reinhart (1983b) appeals in order to motivate DCC. In the last section of Reinhart (1983b), Reinhart remarks that if Rosalind should utter (14),

(14) $\begin{Bmatrix} \text{Rosalind} \\ \text{Rosalind's sister} \end{Bmatrix}$ is going to the opera tonight

then the hearer "has a full right to assume that by 'Rosalind' the speaker does not refer to herself." This fact, of course, exemplifies PPR which, as we now see, can be derived from Rule I, given PH. Specifically, Rule I penalizes (15a) against (15b), causing the relative deviance of the former.[7]

(15) a. *~~Rosalind$_1$ MAKE Addressee KNOW~~ Rosalind$_1$ is going to the opera tonight
      b. ~~Rosalind$_1$ λ_1 MAKE Addressee KNOW~~ I$_1$ am going to the opera tonight

Thus, PH makes it possible to derive both PPR and DCC from Rule I, a welcome result.

III. RULE I IS OPTIONAL IN VIETNAMESE

Let us now come back to Vietnamese, specifically to the fact, presented in section 1, that this language does not obey PPR. We now have a possible way to capture this fact, namely to say that Rule I is optional in Vietnamese: speakers of this language may choose to "turn it off," so to speak. Suppose Rule I is turned off for Minh and Linh, then nothing prevents Minh from uttering (16a), whose LF is (16b), to Linh. In particular, it is not blocked by being semantically indistinguishable to the LF in (16c).

(16) a. Minh nghĩ Linh nên   sống ở đây
          Minh think Linh should live here

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[4] It should be mentioned, for completeness, that a pronoun, in contrast to a name, can be bound or free. The pronoun in (i), for example, is free.

(i)   Mary$_1$ came into the room. She$_1$ sat down on a chair.

This means that there is another form synonymous with (6) and (7) which is penalized by Rule I, namely (ii).

(ii)   Mary$_1$ said that she$_1$ would live here

But (ii) is homophonous with (7) so the fact that it violates Rule I cannot be detected directly.

[5] For this paper, we remain vague and informal about the semantics of perspectives, which should be worked out within the theory of speech acts (cf. e.g. Krifka 2001, 2014, 2015 and references therein). The term "Performative Hypothesis" is used in reminiscence of similar ideas developed in the 70's (cf. Ross 1970, Lakoff 1970, Sadock 1974, Gazdar 1979), which have been revived in recent years (cf. Gärtner 2002, Gunlogson 2003, Speas & Tenny 2003, Hacquard 2006, Truckenbrodt 2006, Trinh & Crnič 2011, Krifka 2015, Sauerland & Yatsushiro 2017, Sode and Truckenbrodt in press).

[6] We ignore the alternative in which the pronoun is free (see note 4).

[7] Our account here has strong parallels with the suggestion of Tsoulas & Koural (1999) that **I** and **you** are standardly pronouns that are bound to silent perspective holders.

b. ~~Minh₃ MAKE Linh₄ KNOW~~ Minh₃ think Linh₄ should live here

c. ~~Minh₃ λ₃ MAKE Linh₄ λ₄ KNOW~~ I₃ think you₄ should live here

This matches our observation on Vietnamese. Thus, we tentatively advance the hypothesis in (17).[8]

(17) **Parameterization of Rule I Hypothesis (PRIH)**
Rule I is optional in some languages.

Is there evidence supporting PRIH which is independent from what was presented in section 1? The answer is yes. Recall that Condition C is derived from Rule I. This means that we predict, given PRIH, that Condition C may be circumvented in Vietnamese. This prediction is correct: (18), as a sentence spoken by someone other than Linh, with the name **Linh** assumed to refer uniquely, is well formed in Vietnamese.

(18) Linh rất yêu mẹ của Linh
Linh very love mother of Linh
'Linh loved her mother very much'

Note, importantly, that (18) can be well-formed as a sentence uttered "out of the blue," i.e. that its felicity does not require a context where replacing the second instance of the name would lead to semantic distinction.[9] This shows that Vietnamese may violate Condition C, which is evidence that PRIH is correct.

IV. NAMES CANNOT BE USED AS PRONOUNS

In this section, we argue against a conceivable alternative account. Note that there is a simple way to keep Rule I as a universal principle and account for the facts presented so far, namely to assume (19).

(19) **Names as Pronouns Hypothesis (NPH)**
Names in Vietnamese can be used as pronouns, i.e. can be bound

It follows from NPH that such forms as (20) are grammatical.

(20) Linh₃ λ₃ yêu mẹ của Linh₃
Linh love mother of Linh

However, NPH encounters empirical problems. Consider (21).

(21) Mỗi Linh yêu mẹ của Linh
Only Linh love mother of Linh

This sentence can only have the strict reading: it can only mean 'no one but Linh loves Linh's mother.' The fact that it cannot have the sloppy reading, 'no one but Linh loves their own mother,' is evidence that names cannot be bound in Vietnamese.

But suppose we say that a bound name α comes with the presupposition that it only ranges over people who are called "α." Thus,

(22) $[\![\lambda_3 \text{ love mother of Linh}_3]\!]^g$
$= [\lambda x : x \text{ is called "Linh"}. x \text{ loves } x\text{'s mother}]$

Can we then rescue NPH? The answer is no. Consider (23).[10]

(23) Tất cả những người tên là Linh đều yêu mẹ
every person named Linh DEU love mother
của Linh
of Linh

The only reading (23) has is that everyone named Linh loves the mother of a certain Linh. It cannot mean everyone named Linh loves their own mother.

Let us make a last attempt. Suppose a bound name α presupposes that it ranges over people who are identical to the person who is named "α." Thus,

(24) $[\![\lambda_3 \text{ love mother of Linh}_3]\!]^g$
$= [\lambda x : x = \text{Linh}. x \text{ loves } x\text{'s mother}]$

But this attempt fails also. Consider (25).

(25) Linh yêu mẹ của Linh. Minh cũng thế.
Linh loves mother of Linh Minh does too

Rule I, which we assume, for the sake of the argument, to be universal, would force the first sentence in (25) to be parsed with binding. Parallelism would force the elided predicate of the second sentence to be identical to the first (cf. Fox 2000). This means that (25) will be parsed as (26).

(26) Linh [λ₃ love mother of Linh₃]. Minh ~~[λ₃ love mother of Linh₃]~~.

Since the domain of (24) does not include Minh, as Minh ≠ Linh, we predict (26) to be a presupposition failure, on a par with (27), where **his** is understood to be bound by **every girl** (cf. Heim 2008).

(27) #Every girl loves his mother

However, this prediction is wrong: (26) is perfectly acceptable and means that both Linh and Minh loves Linh's mother.

We conclude that names cannot be bound, i.e. cannot be used as pronouns, in Vietnamese.

V. VOCATIVES

For languages with and without obligatory Rule I, we predict that a non-pronominal NP could refer to a perspective holder, provided no bound competitor exists. We believe that vocatives exemplify this situation (cf. Hill 2014). Consider (28).

(28) a. John / you, get over here.
b. Hans / Du, dein Mittagsessen ist fertig.
Hans / you, your lunch ist ready
c. Minh / mày, bữa trưa của mày đây.
Minh / you, lunch of you here

In all three sentences in (28), the vocative NP can be a name or a pronoun.[11] We propose that this is because vocatives do not come with "α MAKE β KNOW" on top. In addition, they are independent speech acts and hence are not part of the

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[8]It is interesting to note, in this connection, that Reinhart herself, when she introduces DCC in Reinhart (1983b), says that it was a "performance convention" which holds "in certain cultures," and even in those cultures where it does hold, exceptions exist "in the speech of kids and presidents."

[9]See note 3.

[10]The morpheme **đều** is a functional item that co-occurs with the universal quantifier.

[11]In Vietnamese, pronouns are slightly more "marked" than nouns as vocatives. In English, vocative pronouns are marked in most contexts (Lisa Matthewson p.c.). However, this is not the case for German, in which pronominal vocatives are quite neutral. We have no explanation for this difference.

subsequent sentence. Thus, (28b) will be parsed as (29), where S stands for the speaker's name and NP$_{voc}$ for the vocative NP.

(29) NP$_{voc}$, [~~S MAKE Hans λ_6 KNOW~~ [your$_6$ lunch is ready]]

There is no potential binder for NP$_{voc}$ in (29), which means whether Rule I is operative or not makes no difference. As expected, names and pronouns are interchangeable in this position.

VI. PERSPECTIVES CAN BE STACKED

Note that PH, repeated below in (30), does not rule out (31) as a grammatical option.

(30) Performative Hypothesis
       Every declarative sentence ϕ is parsed as ~~[α [MAKE [β [KNOW ϕ]]]]~~.

(31) ~~[α MAKE β KNOW [δ MAKE γ KNOW ϕ]]~~

In fact, there is evidence that such structures as (31) exist. Consider the following discourse in German. Suppose that the speaker is Peter and the addressee is Susanne.

(32) Maria hat mich angerufen. Sie / *Maria werde
       Maria has me called   she   Maria will.KONJ-1
       Dir / *Susanne mein / *Peters Buch geben.
       you Susanne my   Peter's book give
       'Maria called me. She said she would give you my book.'

The second sentence, whose mood is Konjunktiv I, would be ungrammatical if Maria, Susanne or Peter is referred to by names. The following analysis of this sentence will account for this fact.

(33) ~~[Peter$_1$ λ_1 MAKE Susanne$_2$ λ_2 KNOW [Maria$_3$ λ_3 MAKE me$_1$ λ_1 KNOW~~ [Sie$_3$ werde Dir$_2$ mein$_1$ Buch geben]]

Binding by **Peter**, which refers to the speaker, forces all subsequent NPs refering to Peter to be first person pronouns (including, we assume, the silent NP after the second MAKE). Similarly, NPs bound by **Susanne** must be second person pronouns, because Susanne is the addressee. Binding by **Maria** forces NPs refering to Maria to be third person pronouns, because Maria is not a participant in the conversation. If it is correct to reduce DCC and PPR to PH and Rule I, then we are led to say that all silent levels of interpretation are part of the silent performative representation.

VII. A PUZZLE

What we have said does not rule out reference to the speaker by both name and pronoun in Vietnamese, as in (34).

(34) a. #Minh$_1$ nghĩ rằng tao$_1$ sẽ sống ở đây
           Minh think that I   will live here
       b. #Tao$_1$ nghĩ rằng Minh$_1$ sẽ sống ở đây
           I   think that Minh will live here

However, (34a) and (34b) are deviant: reference to the speaker in Vietnamese has to be either by name or by pronoun but not both. The same holds for reference to the addressee.

(35) a. #Minh$_1$ nên   giúp mẹ   của mày$_1$
           Minh should help mother of you
       b. #Mày$_1$ nên   giúp mẹ   của Minh$_1$
           You should help mother of Minh

The choice of a name vs. pronoun for speaker or addressee depends on the register in Vietnamese (Pham 2002), and it is tempting to say that this is a register phenomenon, i.e. that switching between different ways of reference to perspective holders in Vietnamese causes deviance in the same way as switching between, say, the formal **Sie** and the informal **du** in German, as evidenced by (36).

(36) #Du$_1$ solltest Ihrer$_1$ Mutter helfen
       You.informal should your.formal mother help
       ('You should help your mother')

But as we saw in section V, the addressee can be referred to in Vietnamese by name in the vocative and by pronoun in the subsequent sentence.

(37) Minh$_1$, bữa trưa của mày$_1$ đây
       Minh   lunch   of you   here

The utterance in (37) can be used without implying any kind of midway register change. Can we say that vocatives are "unregistered," having no social connotation of any kind? The answer is no, as evidenced by the oddness of the following German sentence.

(38) #Du$_1$, helfen Sie$_1$ mir
       you.informal help you.formal me
       ('You, help me')

What if we say that languages can differ with respect to whether vocatives are unregistered or not, specifically that vocatives are unregistered in Vietnamese but registered in German? It turns out that even this hypothesis will not do the job. Consider (39).

(39) #Mày$_1$, bữa trưa của Minh$_1$ đây
       you   lunch   of Minh   here

What (39) conveys is the same kind of dissonance exhibited by (34) and (35). The fact is that in Vietnamese, a name vocative can be followed by pronominal reference to the addressee, but a pronominal vocative cannot be followed by a name reference to the addressee.

It seems that reference to perspective holders in Vietnamese has to be linguistically consistent in a certain way. We think that it is important to understand these consistency effects also for being sure about the correct account of the difference between English, German, and Vietnamese. Is it the case, as in our current tentative account, that Vietnamese developed register distinctions in the space made available by a turned-off Rule I? Or, instead, do register distinctions interfere with Rule I? We plan to pursue this issue in the near future.

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