

Fake Indexicals or Indexical Shifting?:

When a language does not agree

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1. Introduction

1.1. Odd interpretations of indexical person pronouns

The interpretation of English first person pronoun ‘I’ in (1) below seems to be straightforward in referring to the speaker of the context.

- (1) a. I read the book.
b. John thought I read the book.

The examples in (1) show that, whether embedded or not, the semantic value of the first person pronoun ‘I’ is invariably fixed to the speaker of the context in which the sentence (1) is uttered. So, it can be formerly represented as in (2), following Kratzer (1998, 2009).

- (2) $[[I]]^{g,c} = g(5)$ if $g(5)$ is the speaker in c , undefined otherwise.

What (2) says is that once a context is given, the reference of ‘I’ is fixed to the speaker. It precludes any possibility that the semantic value of ‘I’ can vary, along the line of the long standing ‘fixity thesis’ of Kaplan (1977), as Schlenker (2005) puts as below:

- (3) Kaplan’s (1977) Fixity Thesis:
The semantic value of an indexical (here ‘I’ in (1)) is fixed solely by the context of the actual speech act only, and cannot be affected by any logical operator.

Kaplan (1977) denies the existence of such logical operator that could change the semantic values of indexicals, a so-called ‘monster.’ The thesis which had been taken as the traditional way of treating indexicals, however, has been facing serious challenges because empirical evidence from various languages shows that the semantic value of ‘I’ can vary with no absolute tie to the speaker of the actual speech act.

More specifically, Heim (1991) pointed out that English first and second person pronouns can receive a bound variable interpretation, which cannot be accounted for by the traditional view based on Kaplan (1977/1989). The second occurrence of ‘I’ in a focus construction below can be interpreted as a bound variable with no reference to the speaker, unlike an indexical ‘I’

- (4) Only I got a question that I understood.
a. $[Only I] \lambda x x$ got a question that I understood.
b. $[Only I] \lambda x x$ got a question that x understood.

Two readings are available for the sentence in (4): a referential reading in (4a) and a bound variable reading in (4b). In (4a), ‘I’ in the embedded clause behaves just as an indexical, referring to the speaker of the actual speech. In contrast to this, in (4b), ‘I’ functions as a bound variable ‘ x ’ that would get its value from its binder. The readings become clearer when paraphrase sentences follow (4a) and (4b), as in (5) below.

- (5) a. (4a). Nobody else got a question that I understood.
b. (4b). Nobody else got a question that he or she understood.

When (4b) is paraphrased into a negative sentence as in (5b), a third person pronoun ‘he/she’ serving as a bound variable, appears instead of the first person pronoun ‘I.’ Though (4b) is a subtle interpretation to catch in the first place, (4b) convincingly shows that a first person pronoun ‘I’ can deviate from the standard usage of indexicals with no referential function. Thus, Kratzer (2009) calls such an ‘I’ in (4b) a ‘fake indexical.’¹

There have been found from other languages more interesting cases supporting the non-standard view of indexical person pronouns. Schlenker (2003a) demonstrated that in some language like Amharic the semantic values of indexical person pronouns can be set not by the actual speech act but by the context of attitude report, which means that ‘I’ can refer to someone other than the speaker of the actual speech act in Amharic.

(6) [Situation: John says: ‘I am a hero.’]

jon jəɡna nə-nn yil –all
John hero be.PF-1SO 3m.say-AUX.3M
“John says that he is a hero.”

Schlenker (2005)

In (6), the first person pronoun inside the reported speech is interpreted with respect to the reported speech rather than the actual speech so that it ends up referring to ‘John’ rather than the speaker. The fact clearly shows that indexicals can shift, thereby having its semantic value changed accordingly in some languages, providing strong evidence against Kaplan’s (1977) thesis.

Anand and Nevins (2004) confirmed it in Zazaki (one of Indo-Aryan languages). Zazaki allows indexicals to shift in reported speech embedded by certain verbs. Anand and Nevins (2004) proposed that Zazaki has a context shifting operator which rewrites the author coordinate of the context parameter with that of the index parameter. See a Zazaki example below.

(7) Həseni_j (mi_k-ra) va kə ɛz_{j/k} dəwletia
Hesen.OBL (I.OBL-to) said that I rich.be-PRESS
Hesen said that {I am, Hesen is} rich.’

Anand and Nevins (2004)

In the indirect speech verb ‘say’, the first person pronoun ‘ɛz_{j/k}’ (Eng. ‘I’) can be shifted by, thus referring to the speaker of the indirect speech, that is, ‘Həseni_j’ (Eng. Hesen).

In all the data given above, indexical person pronouns do not behave like normal indexicals that should have a direct reference to the speech act². Rather, they gave us odd interpretations such as a bound variable interpretation of a first person pronoun ‘I’ in various languages, calling for the need amending Kaplan’s (1977/1989) fixity thesis that has been taken for granted.

1.2. Korean cases: a language which does not agree

Now, let us add Korean cases to the data above. Korean examples are important in two aspects. First, the shifting analyses suggested by Schlenker (2000, 2003) and Anand & Nevins (2004) are mostly confined to indexical shifting inside attitude verbs. Korean exhibits the same phenomenon, but go beyond it.

(8) Minho-nun nay-ka ceil-i-rako saynkakha-nta.

¹ Rullmann (2004) made the similar point with ellipsis sentences.

(i) I got a question that I understood, but John didn’t.

The sentence with a VP ellipsis in (i) can have both strict and sloppy readings as below:

(ii) a. I got a question that I understood, but John [didn’t get a question that I understood].

b. I got a question that I understood, but John_x [didn’t get a question that he_x understood].

Note that the elided VP in (i), [get a question that I understood], includes a first person pronoun ‘I.’ In order for the sentence in (i) to get a sloppy reading as in (ii-b), the first person pronoun ‘I’ in the ellipsis should function as a bound variable. Going against Kratzer (2009), Maier & Schepper (2010) argues that the sloppy reading in question can be naturally accounted for by QR, without employing any other syntactic or semantic device.

² Both Schlenker (2003) and Anand & Nevins (2004) find such a ‘shifting’ pattern in other indexicals across the board. Yet, in this paper, we are going to focus on ‘first and second pronouns.’

Minho-TOP I-NOM best-be-COMP think-DCL.PRESS.

Reading#1: "Minho thinks that I am the best."

Reading #2: "Minho_i thinks that he_i is the best."

The first person pronoun 'nay' in the attitude verb 'saynkakh-ta' (Eng. 'think') can be shifted and have a con-reference with 'Minho,' the attitude holder, as in Reading #2. Note that, however, the odd interpretation of indexical person pronouns in question can be found outside attitude verbs in Korean.

(9) Chulswu-nun na-pakkey moru-nta.

Chulswu-TOP me-only don't know/care-PRS.DCL.

Reading #1: "Chulswu cares only for me"

Reading #2: "?Chulswu cares only for himself"

(10) Chulswu-nun [na-pakkey moru-nun] saram-i-ta

Chulswu-TOP me-only don't know-REL.PRS person-be-PRS.DCL.

Reading #1: "Chulswu is such a person who cares only for me."

Reading #2: "?Chulswu is such a person who cares only for himself."

In (9), Reading #2, that is, the non-indexical interpretation of the indexical 'na' (I) is available in a matrix clause. In (10), the same thing goes in the restrictive relative clause. Thus, Korean has a wider range of occurrences of non-canonical interpretation of indexical person pronouns, which makes it easy to take into the phenomenon consistently in one language.

Second, unlike other European languages such as English, German and Dutch, Korean has no systemic morpho-syntactic agreement. The discussion on 'fake indexicals' in Kratzer's term is mainly focused on such languages with grammatical agreement, which naturally invites theories that sanctions fake indexicals on the basis of agreement, as in Kratzer (1989, 2009). Now take a look at Korean examples in (9) above. The first person pronoun 'na' (I), invoking a bound variable interpretation, does not hold any morphological agreement relation with the co-referring noun phrase 'Chulswu.' The examples of Korean with no morpho-syntactic agreement as given in (9) and (10) can test whether Kratzer's (2009) hypothesis would hold for other language groups or we need for those languages a new analysis with no resort to agreement³.

In these respects, this paper has two aims to achieve. One is to add the empirical evidence from Korean for the non-standard theory of indexical person pronouns such that 1st or 2nd person pronouns can have a bound variable reading, just like 3rd person pronouns. The other is to review Kratzer's (1998, 2009) accounts based on a morpho-syntactic agreement relation in detail and propose that the context shifting account adopting Cable (2005) best fits for covering a wider range of Korean data.

2. Kratzer's analyses of 'odd' indexicals

2.1. Kratzer's (1998, 2005) Minimal pronoun approach

In order to account for the bound variable reading of the second occurrence of 'I' in (11), Kratzer (1998, 2005) proposes a new term of 'zero pronouns / minimal pronouns'

(11) a. Only I got a question that I understood. (Heim 1991)

³ The English example originally from Heim (1991) is repeated below:

(i) Only I got a question that I understood.

a. [Only I] λx x got a question that I understood.

b. [Only I] λx x got a question that x understood.

As we're going to see later in this paper, Kratzer (1989, 2009) argues that the second occurrence of 'I' starts with no semantic & morphological values, as a 'zero pronoun or a fake indexical' and get the values through the agreement relation to the first occurrence of 'I.' Thus, Kratzer (1989, 2009), no agreement would mean no feature transmission, leading to no device to make fake indexicals in Korean. But, the examples in (9) and (10) demonstrate that Korean first person pronouns can have a non-indexical interpretation just like English fake indexicals, regardless of person feature (mis)match.

- b. I'm the only one around here who can take care of my children. (Kratzer 1998)

Kratzer (1998, 2005) called the second 'I' in (11a) and 'my' in (11b) 'zero/minimal pronouns' because they do not have any feature sets, except for indices, and function as bound variables. The idea is that they are born as mere indices and get their referential look as indexicals from its local binder. Thus, zero/minimal pronouns are disguised bound variables and the person features that they have are non-interpretable because they get them at the PF level. For example, in (11a) the embedded 'I' gets its 1st person feature from its binder through feature transmission. Yet, according to Kratzer (1998, 2005), the true binder of the second 'I' is not the upfront 'I' in (11a). In order to understand the feature transmission mechanism Kratzer (1998, 2005) employs, let us take a look at German examples below:

- (12) a. 1st person singular
 Ich bin der einzige, der t meinen Sohn Versor-t
 1SG only.one who.MASC.SG 1SG.POSS.ACC son take.care.of-3SG
 'I am the only one who is taking care of my son.'
- b. 2nd person singular
 Du bist der einzige, der t deinen Sohn Versor-t
 2SG only.one who.MASC.SG 2SG.POSS.ACC son take.care.of-3SG
 'You are the only one who is taking care of your son.'
- c. 1st person plural
 Wir sind die einzigen, die t unseren Sohn Versor-en
 1PL only.one who.MASC.SG 1PL.POSS.ACC son take.care.of-1/3PL
 'We are the only one who is taking care of our son.'
- d. 2nd person plural
 Ihr seid die einzigen, die t euren Sohn Versor-en
 2PL only.one who.PL 2PL.POSS.ACC son take.care.of-1/3SG
 'You are the only one who is taking care of your son.'

Among the sentences given in (12), a bound variable reading for the embedded person pronouns is available only for (12c) where the ϕ -feature of the person pronoun 'unseren' can match with that of the embedded verb. With the same pattern applied, Kratzer (1998, 2005) assumes that the verbal functional head of **vP** carrying first / second person features, but not a DP, is the true binder of the local fake indexical 'I.' The feature transmission through agreement and predication can be formally represented as below:

- (13) a. We are the only people who brush our teeth.
-
- b. [CP C_{λ[n]} [TP T [VP Ø_[n] v_{λ[n]} brush Ø_[n]'s teeth]]]
- Transmission
- Agree
- Predication

2.2. Kratzer's (2009) Fake indexical analysis

In a broad sense, 'fake indexicals' in Kratzer (2009) are pronouns that look like indexicals, but do not function like them, being open to a bound variable interpretation. Furthermore, Kratzer (2009) makes a distinction between local fake indexicals and long distance ones, as follow:

- (14) Two kinds of fake indexicals
- A. Local fake indexicals: Minimal pronouns born with no ϕ -features.
- B. Long distance fake indexicals: Indexicals with ϕ -feature sets that undergo context shifting.

While local fake indexicals are bound variable with a PF make up feature transmission, long distance fake indexicals are true indexicals born with all the features but come to receive a shifted interpretation in question by undergoing context shifting. The following German example provides an instance of long distance fake indexicals.

- (15) Du bist der einzige, der
 You.SG be.2SG the.MASC.SG only.one who.MASC.SG
 jemand kennt, der deinen Aufsatz versteht.
 somebody knows who 2SG.POSS.ACC paper understands.
 ‘You are the only one who knows somebody who understands your paper.’

The deeply embedded person pronoun ‘deinen’ in (15) is analyzed as a long distance fake indexical that undergoes a context shifting mechanism.

3. Fake indexicals in Korean

3.1. Syntactic Characteristics

Fake indexicals in Korean exhibit several characteristics. First, there is no person feature agreement.

- (16) a. Na-nun [na-pakkey moru-nun] saram-i-ta
 I-TOP me-only don’t know-REL.PRS person-be-PRS.DCL.
 Reading #1: ‘I am such a person who cares only for me.’
 Reading #2: ‘?I am such a person who cares only for myself.’
 b. Ne-nun [na-pakkey moru-nun] saram-i-ta
 YOU-TOP me-only don’t know-REL.PRS person-be-PRS.DCL.
 Reading #1: ‘You are such a person who cares only for me.’
 Reading #2: ‘?You are such a person who cares only for yourself.’
 c. Ku-nun [na-pakkey moru-nun] saram-i-ta
 He-TOP me-only don’t know-REL.PRS person-be-PRS.DCL.
 Reading #1: ‘He is such a person who cares only for me.’
 Reading #2: ‘?He is such a person who cares only for himself.’

Since there is no agreement relation, no feature transmission between fake indexicals and their binder in (16) takes place.

Secondly, they can appear in a wide range of grammatical position, as seen below:

- (17) a. Direct Object
 Ku-nun [na-pakkey moru-nun] saram-i-ta
 He-TOP me-only don’t know-REL.PRS person-be-PRS.DCL.
 Reading #1: ‘He is such a person who cares about only me.’
 Reading #2: ‘?He is such a person who cares about only himself.’
 b. Possessive
 Ku-nun [nay kacok-man chayngki-nun] saram-i-ta
 He-TOP my family-only take care of-REL.PRS person-be-PRS.DCL.
 Reading #1: ‘He is such a person who takes care of my family only.’
 Reading #2: ‘?He is such a person who takes care of his family only.’
 c. Subject
 [Nam-i na-rul hakkoci ha-ki ceney,
 Others-NOM I-OCC harm do-NOMINALIZER before
 nay-ka na-rul motsal-key ku-nun]-saramdul-to iss-ta
 I-NOM I-OCC harras-Adv. act-REL.PRS-people-PRS.DCL. be-PRS.DCL.
 ‘There are those who are torturing themselves even when nobody blames /
 harms them.’

Thirdly, it is Interchangeable with a long distance anaphora ‘Caki (self)’

- (18) a. Direct Object
 Ku-nun [caki-pakkey moru-nun] saram-i-ta
 He-TOP self-only don’t know-REL.PRS person-be-PRS.DCL.
 ‘He is such a person who cares only for himself.’
 b. Possessive
 Ku-nun [caki kacok-man chayngki-nun] saram-i-ta
 He-TOP self family-only take care of-REL.PRS person-be-PRS.DCL.
 ‘He is such a person who takes care of only his family.’

c. Subject

[Nam-i caki-rul hakkoci ha-ki ceney,
Others-NOM self-OCC harm do-NOMINALIZER before
caki-ka caki-rul motsal-key ku-nun]-saramdul-to iss-ta
self-NOM self-OCC harras-Adv. act-REL.PRS-people-PRS.DCL be-PRS.DCL.
'There are those who are too much hard on themselves even when nobody blames / harms them.'

Fourthly they can appear within Intensional verbs.

- (19) a. Ku-nun [nay-ka ceyil ttokttokha-ta]-ko sayngkakhay-ss-ta
He-TOP I-only best smart-PRS.DCL.-Comp think-PST-DCL.
Reading #1: 'He thought that I am the smartest.'
Reading #2: '?He_i thought that he_i is the smartest.'
- b. Ku-nun [nay-ka ceyil ttokttokha-ta]-ko mit-ess-ta
He-TOP I-only best smart-PRS.DCL.-Comp believe-PST-DCL.
Reading #1: 'He believed that I am the smartest.'
Reading #2: '?He_i believed that he_i is the smartest.'

Lastly, they can appear even with no antecedent DP, as below:

- (20) Yocum-un [nay casik-to mit-ci motha]-nun muse(p)un seysang-i-ta
Thesedays-TOP my child-even trust-can't-PRS.REL awful world-be-PRS.DCL
Reading #1: '?These days, it's an awful world where I can't trust my children.'
Reading #2: 'These days, it's an awful world where one can't trust one's children.'

3.2. The proposed analysis

In this paper, it is proposed that the bound variable interpretation of the first person indexical 'na' (I) is a result of a context shifting in Korean.

As an easy case, context Shifting triggered by intensional verbs

(Anand & Nevins 2004, Anand 2006)

- (21) Ku-nun [nay-ka ceyil ttokttokha-ta]-ko sayngkakhay-ss-ta
He-TOP I-only best smart-PRS.DCL.-Comp think-PST-DCL.
Reading #1: 'He thought that I am the smartest.'
Reading #2: '?He_i thought that he_i is the smartest.'

'Sayngkakha-ta' (think) is an intensional verb whose property leads to a context shifting of its complement clause.

However, non-intensional context in relative clauses are more challenging cases

- (22) Ku-nun [**na**-pakkey moru-nun] saram-i-ta
He-TOP me-only don't know-REL.PRS person-be-PRS.DCL.
Reading #1: 'He is such a person who cares only for **me**.'
Reading #2: '?He is such a person who cares only for **himself**.'

Note that there is no obvious shifting operator. Adopting Kratzer's (2009), based on Cable (2005), we suggest that the relative clause in (22) includes a context shifting operator, which is a λ -operator binding indexical person features:

- (23) Cable (2005)'s indexical λ -abstraction

$$[[\lambda[1st] \alpha]]^{g,c} = \lambda x [[\alpha]]^{g,c}, \text{ where } c' \text{ is like } c, \text{ except possibly that } speaker(c') = x.$$

Cable's (2005) original idea was that the movement of a XP including a first person creates the environment for binding person features by a λ operator.

More Challenging cases:

A. No antecedent DP:

- (24) Yocum-un [**nay** casik-to mit-ci motha]-nun muse(p)un seysang-i-ta

Thesedays-TOP my child-even trust-can't-PRS.REL awful world-be-PRS.DCL

Reading #1: ‘?These days, it’s an awful world where I can’t trust my husband.’

Reading #2: ‘These days, it’s an awful world where one can’t trust one’s husband.’

There is no covarying DP with ‘nay’ (my) in the externally headed relative clause in (24).

B. Context shifting in matrix clauses:

(25) Chulswu-nun na-pakkye moru-nta.

Chulswu-TOP me-only don’t know/care-PRS.DCL.

Reading #1: ‘Chulswu cares only for me’

Reading #2: ‘?Chulswu cares only for himself’

(26) Ku-nun paykakkwan-ul [nay cip-cerum] tunatu-nta.

He-TOP White house-OCC my house-like come to/out-PRS.DCL.

Reading #1 ‘He comes in and out the White House as if it is my house.

Reading #2? ‘He comes in and out the White House as if it is his house.

Kratzer (2009): Context shifters are λ -operators, indexical person features on verbal functional head such as v.

(27) Nay kacok-pwute chayngki-ca

My family-from take care of-.

Reading #1: ‘?Let’s take care of my family first.’

Reading #2: ‘?Let’s take care of our family first;’

4. Conclusions

- A. The 1st person pronoun ‘na’ can get a bound variable interpretation
- B. The bound variable interpretation of ‘na’ is the result of context shifting.
- C. First person features on verbal functional heads are context shifter, causing indexical abstraction.

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