De Re Indexicals in Rendille

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Abstract

According to the data collected in Kenya in 2019, partial shift of indexicals is observed in Rendille. Firstly, first and second person indexicals optionally shift reference allowing both de se and de re readings. Even though temporal indexicals do not necessarily shift, locative indexicals shift allowing de re readings, similar to the data in Nez Perce (Deal 2017). Such de re readings of indexicals are not predictable with the monster-based approach (Schlenker 1999, among others) but variable binding approach (von Stechow 2002, 2003) better accounts for the phenomena.

Rendille is an east-Cushitic language that reports close language contact with Nilotic languages such as Samburu (Ngure2012). According to the data collected in Kenya in 2019, partial shift of indexicals is observed.

1 Optional Shift of Indexicals

This section presents data that first and second person pronouns and locative indexicals shift reference optionally while temporal indexicals do not in Rendille. Moreover, non-de se, non-de te, and non-de locus readings, as I term for the belief about location, are allowed in many cases.

1.1 Optional Shift of Person Pronouns

First and second person indexicals optionally shift reference allowing both de se and de re readings in (1-2). A possible de re situation for (1) would be, while watching TV, Irka said Will Smith on the screen looked cool without knowing it was actually Irka himself. A de re situation for (2) would be that, when Irka charged his phone, he mixed it up with Irta's phone. He thought it was Irta's phone and said it worked well, without knowing it was his own phone.

- (1) Irka_i mehe-idah ann_{i/speaker} ahagan Irka PAST-say 1.SG cool "Irka said he was cool." 1
- (2) Irka $_i$ mehe-idah simo hay $_{i/speaker}$ ilkasi ahagicha. Irka PAST-say telephone 1.SG.POSS work well "Irka said my phone works well."

Since indexical shift is found in relative clauses in (3), direct quotation is not necessary for the pronoun to refer to someone else other than the speaker.

 $^{^1}$ maa-idah "say-pres"

(3) a. Irka $_i$ mehe-idah simo $\mathrm{ann}_{i/speaker}$ tumie ajejebe. Irka PAST-say phone 1.SG used broke "Irka said the phone he used broke."

b. Simo wihi Irka ann usi-tumie mehe-idah ajejebe. phone COMP Irka 1.SG he/she-used PAST-say broke "The phone that Irka said he used broke."

The following example is of wh- extraction which also implies that indexical shift occurs in indirect quotation. The first person anni can either refer to Irka or the speaker of the utterance.

(4) Wihi New York ayo hese $Irka_i$ idah $anni_{i/speaker}$ agarna? in New York who did Irka said 1.SG meet "In New York, who did Irka say he would meet?"

Moreover, the *de re* reading without self-awareness is possible in (4). For example, what Irka said could have been actually "This guy is meeting Irta in New York." Assume that Irka met a traffic accident and lost his memory. Now he found his lost diary saying he was supposed to meet Irta in New York, without knowing it was about his schedule.

The second person pronoun also optionally shifts reference. In (5), tah "your" may refer to either the friend or the addressee of the utterance.

(5) A rafkihi_i Irka mehe-idah rubei tah_{i/hearer} ahagan ani i-agarte ² the friend Irka PAST-say heart your nice 1SG PAST-visit "The friend Irka said your heart is nice visited me." ³

With de re scenario, Irka thought he said to Inam that her heart was nice when she hid her face with a scarf. But it was actually Irta that Irka told that and Irka had no idea it was Irta.

1.2 Temporal and Locative Indexicals

Although temporal indexicals such as *chele* "yesterday" or *manta* "today" do not show evidence for shifts, meaning that "yesterday" and "today" refer to one day before or the day of utterance. *Manta* "today" in (6) does not mean January 1st but the date of utterance, and so does in (7). *Chele* "yesterday" in (8) does not refer to Tuesday but to Sunday, one day before this sentence was uttered.

- (6) Hayti kowe, Irka mehe-idah Irta irata manta. Janurary first Irka PAST-say Irta leaving today "On January 1st, Irka said Irta was leaving today.".⁴⁵
- (7) Inanki wihi Irka idah usu manta isoagarde chele.
 boy that Irka said I met today visited yesterday
 "The friend that Irka said I met today visited me yesterday."

³The present tense of mehe-idah is ma-idah.

⁴sahata "tomorrow"

 $^{^5}irata$ "go-fut" iirta "go-pres" iirate "go-past"

(8) Arafiki hii Irka chekte Irta koltuman arbah ka Moyale $_i$ ahese chele inta $_i$ irate a friend that Irka told Irta every Wednesday in Moyale we met yesterday here moved to Nairobi.

Nairobi

"The friend that Irka told Irta every Wednesday in Moyale we met yesterday here (i.e., Moyale) moved to Nairobi." 6 7

Even though, in the following example in (9), the non-shifted reading of *inta* "today" is suppressed so that it refers back to "yesterday," we can consider it as an exception.

(9) Irka chele mehe-idah haldayan ka Irta a-agarde ⁸ inta manta— Irka yesterday PAST-say Marsabit in Irta PAST-I meet here today "Yesterday Irka said in Marsabit that I met Irta here (in {Marsabit/*Nairobi}) today (i.e., yesterday)."

On the other hand, locative indexicals such as *inta* "here" are shiftable. In (9), *inta* "here" means Moyale, which is *intuus* "there" from the speaker's location, Nairobi. (9) is also felicitous with *de re* reading in that Irka misunderstood the location and believed he was in Moyale even though he was in Isiolo.

Such a data is comparable to "here" in Nez Perce which is not always de se (Deal 2017).

1.3 Other predicates than tell or say

Other than *idah* "say" in (10) and *chekte* "tell," *kasoyela* "think," *aamina* "believe," *garata* "know," *kasohes* "regret," *ripotide* "reported," and *a hamada* "be happy" shift indexicals. Among them, *aamina* "believe," *garata* "know," *kasohes* "regret," *a hamada* "be happy," *ripotide* "reported," allow *de re* readings.

It is not surprising that *kasoyela* "think" does not allow non-*de se* readings because "think" describes one's inner thought. It is rather unexpected why "believe" verb allows non-*de se* reading. Presumably, lexical meanings differ from language to language and the meaning of the "believe" verb may be different in Rendille.

(10) Irta_i mehe-ida ani $\sqrt{i/\sqrt{speaker}}$ dafar tey a guba. Irta PAST-say my skirt COP on fire "Irta said her skirt was on fire."

De re scenario: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or in the video on You Tube video to be of her friend.

 $[\sqrt{\text{de se}/\sqrt{\text{de re}}} (\sqrt{\text{mirror}/\sqrt{\text{video}}})]$

(11) Irta_i kasoyela ani $\sqrt{i/\sqrt{speaker}}$ dafar tey a guba. Irta think my skirt COP on fire

"Irta thinks her skirt is on fire."

De re scenario: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or in the video on YouTube to be of her friend.

⁶Anni chekte, Irka chekte

⁷Intuus "there"

 $[\sqrt{\text{de se}/\text{*de re (*mirror/*video)}}]$

(12) Irta_i aamina ani $\sqrt{i/\sqrt{speaker}}$ dafar a agubt-e.

Irta believe my skirt on fire-PAST

"Irta believes her skirt was on fire."

De re: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or on the video in YouTube to be of her friend.

 $[\sqrt{\text{de se}}/\sqrt{\text{de re}} (\sqrt{\text{mirror}}/\sqrt{\text{video}})]$

(13) Irta, garata ani $\sqrt{i/\sqrt{speaker}}$ dafar tey a agubt-e.

Irta know my skirt COP on fire-PAST

"Irta knows her skirt was on fire."

De re: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or on a video to be of her friend.

 $[\sqrt{\text{de se}/\sqrt{\text{de re}}} (\sqrt{\text{mirror}/\sqrt{\text{video}}})]$

(14) Irta_i kasohes-a ani $\sqrt{i/\sqrt{speaker}}$ dafar tey a agubt-e.

Irta regret-PRES my skirt COP on fire-PAST

"Irta regrets her skirt was on fire." 9

De re: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or in YouTube video to be of her friend.

 $[\sqrt{\text{de se}/\sqrt{\text{de re}}} (\sqrt{\text{mirror}/\sqrt{\text{video}}})]$

(15) Irta, asohele ani $\sqrt{i/\sqrt{speaker}}$ dafar tey a agubt-e.

Irta heard my skirt cop on fire-PAST

"Irta heard her skirt was on fire."

De re: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or in You Tube video to be of her friend.

 $[\sqrt{\text{de se}}/\sqrt{\text{de re}} (\sqrt{\text{mirror}}/\sqrt{\text{video}})]$

(16) Irta_i ripotide ani $\sqrt{i}/\sqrt{speaker}$ dafar tey a agubt-e.

Irta reported my skirt COP on fire-PAST

"Irta reported her skirt was on fire."

De re: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or in you tube video to be of her friend.

 $[\sqrt{\text{de se}}/\sqrt{\text{de re}} (\sqrt{\text{mirror}}/\sqrt{\text{video}})]$

⁹kasohes-e "regret-PAST"

(17) Irta_i a hamada ani $\sqrt{i/\sqrt{speaker}}$ ashinde girtham. Irta COP happy my won game

"Irta is happy she won the game."

De re: Irta studied so much that her eyesight became bad. Without glasses, she thought herself in the mirror or in you tube video to be of her friend.

 $[\sqrt{\text{de se}}/\sqrt{\text{de re}} (\sqrt{\text{mirror}}/\sqrt{\text{video}})]$

2 Analysis

In view of the shifty indexicals, what is called a monster-based approach advocated in Schlenker (1999), Anand and Nevins (2004), Anand (2006) and others have explained the phenomena by means of the context-change function called a monster. Adopting the Kaplanian and Lewisian notion of context (Kaplan 1977, Lewis 1980), the context is doubly indexed with context and index parameters of an agent (speaker, a), hearer (h), time (t), location (l) and the world (w). According to Kaplanian Fixity Thesis, the context is fixed and unmovable. If there is anything that changes the context parameters, such a thing should be called a monster. That is why a context-change function is called a monster. The shifty indexicals reported in Amharic, Zazaki, Uygur and others have often been explained in terms of the monstrous context-change function OP which shifts context parameters themselves (cf. Sudo 2010).

- (18) context = < a, h, t, l, w>
- (19) [OP [$_{TP}$ an ahagan]] $^{\langle ac,hc,tc,lc,wc\rangle,\langle ai,hi,ti,li,wi\rangle} =$ $[_{TP} \text{ an ahagan}]^{\langle ai,hc,tc,lc,wc\rangle,\langle ai,hi,ti,li,wi\rangle}$

In (19), an "I" evaluated in the shifted context does not refer to the speaker anymore but does refer to the index agent who is Irka in the matrix clause. In the shifted context, the first person pronoun is the same individual as the attitude holder who is aware of self-identity and the thoughts are identical. Thus, the monster approach derives de se as well as de te, de nunc, and de locus readings while the de re readings are not predictable. Such de re readings of indexicals are reported in Dhaasanac and Nez Perce (Nishiguchi 2017, Deal 2017, Nishiguchi 2019).

Since such de re readings are not expected from the monster-based approach in Schlenker (1999), Anand and Nevins (2004), or Anand (2006), which only expects de se or de locus readings, we should assume that indexicals are like anaphoric pronouns. Free indexicals produce de re readings (von Stechow 2002, Stechow 2003).

In von Stechow's story, when the first person pronoun an has an interpretable first person feature when an denotes the speaker. When lambda-bound, its interpretable first person feature is deleted during derivation.

(20) Feature deletion under semantic binding:

Delete the features to all variables that are semantically bound.

(von Stechow 2002)

In de se reading, the first person pronoun in the embedded clause is lambda bound by the quantificational force of the attitude verb and the first person feature is deleted as in (21a). In de re reading, the first person feature of an "I" is also deleted by the attitude predicate but I assume is TP adjoined and is not interpreted in situ. The variable outscopes the attitude predicate in LF as given in (22b). Thus, "I am cool" does not belong to Irka's belief but does belong to the reporter's. Irka did not know it was himself but the speaker knew that and correctly describes Irka's utterance.

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(21) a. [TP] Irka idah 1 \lambda x.[CP] [C'] [TPx_1] ahagan]]]]]
b. [TP'] x_1[TP] Irka idah 1\lambda x.[CP] [C'] [TP < x_1 > ahagan]]]]]]
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The quantificational force of the attitude predicates *idah* "say," *chekte* "tell," *kasoyela* "think," *aamina* "believe," *garata* "know," *kasohes* "regret," *ripotide* "reported," and *a hamada* "be happy" come from the modal force of these predicates, namely, attitude holder's belief on the proposition. The reason why *kasoyela* "think" does not allow de re reading can be explained that the first person pronoun does not escape the scope of *idah* "say." The non-*de locus* reading can be accounted for in a similar fashion.

Appendix

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(22) deka "will"
deka agolosda "FUTURE go"
agolosda-a "go-PRES"
agolosde "go-PAST"
(23) hirr atheya
rain pour
deka hirr atheya "it will rain"
hirr atheya "it is raining"
hirr atheyee "it was raining"
hirr atheyee "it was raining"
b. mehe-idah "PAST-say"
c. kasoyela "think"
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References

- [1] Anand, Pranav and Andrew Nevins (2004) "Shifty Operators in Changing Contexts," SALT 14, 20-37.
- [2] Anand, Pranav Anand (2006) De De Se, PhD thesis, MIT.
- [3] Deal, Amy Rose (2017) "Shifty asymmetries: universals and variation in shifty indexicality," ms. UC Berkeley.
- [4] Ngure, Kenneth Kamri (2012) From Rendille to Samburu: A Language Shift Involving Two Mutually Unintelligible Languages of Northern Kenya, PhD thesis, University of Nairobi.
- [5] Nishiguchi, Sumiyo (2017) "Indexical Shifting in Dhaasanac and Somali, Proceedings of Triple A3, 47-55.
- [6] Nishiguchi, Sumiyo (2019) "Context-shift in Indirect Reports in Dhaasanac," Indirect Reports and Pragmatics in the World Languages, 345-354, Springer.
- [7] Oomen, Antoinette (1978) "Focus in the Rendille Clause," Studies in Afroasiatic Linguistics, 9, 1.
- [8] von Stechow, Arnim (2003) "Binding by Verbs: Tense, Person and Mood under Attitudes," eds., by Kadowaki and Kawahara,
- [9] Schlenker, Philippe (1999) Propositional Attitudes and Indexicality: A Cross-Categorial Approach, PhD thesis, MIT.