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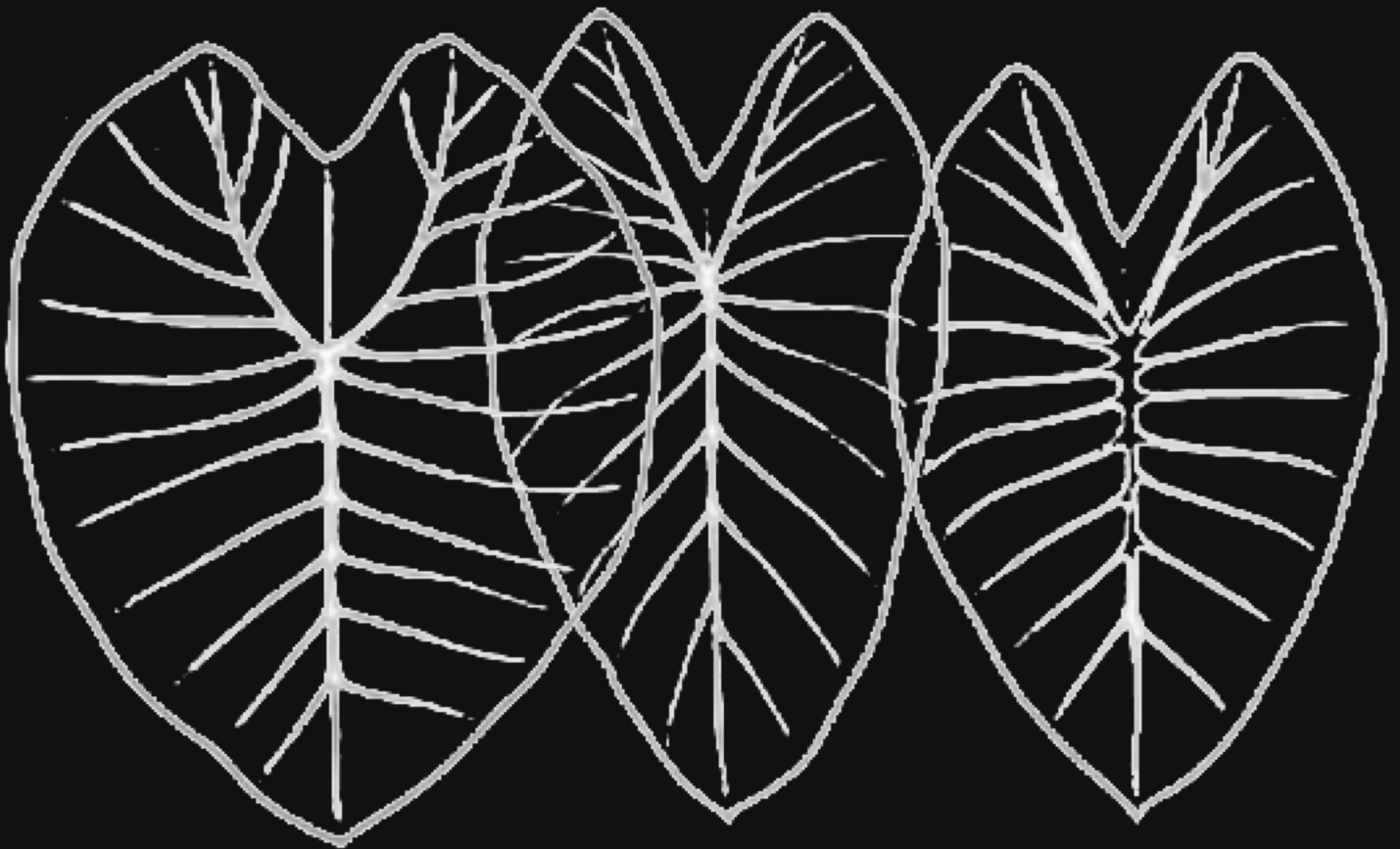
Fieldwork Perspectives on the
Semantics of African, Asian and Austronesian Languages

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Austronesian

Indexical Shifting in Dhaasanac and Somali[1]

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Abstract.   It has been claimed that there are three kinds of Kaplanian monsters selected by different attitude verbs in Slave (Anand and Nevins 2004, Anand 2006) as well as in Uyghur (Sudo 2010). This paper shows, on the basis of the collected data, that Dhaasanac has a fourth kind of monster that shifts person and temporal parameters optionally, but does not shift the locative parameter.

1   Three Types of Monsters

Kaplan (1977, 1989) claimed that indexicals such as *I*, *you*, *here*, *now*, and *yesterday* are directly referential, meaning that their reference is fixed by the context of utterance. Except for direct quotations such as in (1a), *I* can refer only to the speaker or writer in (1b).

(1) a. Baali said: "I am an idiot."

   b. Baali said that I am an idiot.

Kaplan's claim has prompted much debate on whether or not contexts can be shifted. Schlenker (2003) and Anand and Nevins (2004), among others, have argued that context shifters, referred to as monsters, exist in languages such as Amharic and Zazaki. Furthermore, Anand and Nevins (2004) and Anand (2006) claimed the existence of three kinds of Kaplanian monsters selected by different attitude verbs in Slave. In (2), context (*c*) and index (*i*) are tuples $< a, h, l, t, w >$ with the following abbreviations: author (*a*), hearer (*h*), location (*l*), time (*t*), and world (*w*). There are three kinds of monstrous operators: (a) $OP_\forall$ maneuvers all indexicals in its scope so that the person, locative, temporal, and world parameters are all overwritten by the index, (b) OP_{per} only applies to first and second person pronouns, namely, the agent *a* and the hearer *h*, and (c) OP_{auth} shifts the reference of the first person, or the author, exclusively.

(2) a. $[\![OP_\forall \phi]\!]_g^{c,i} = [\![\phi]\!]_g^{i,i}$

   b. $[\![OP_{per} \phi]\!]_g^{c,i} = [\![\phi]\!]_g^{<ai,hi,lc,tc,wc>,i}$

   c. $[\![OP_{auth} \phi]\!]_g^{c,i} = [\![\phi]\!]_g^{<ai,hc,lc,tc,wc>,i}$
      (Anand and Nevins 2004, Anand 2006)

In the following sections, I will show that there exists another kind of a monstrous function, $OP_{per,time}$.

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2 Indexical Shifting in Dhaasanac

2.1 Person Indexicals

In Dhaasanac, the first person *I* in the embedded clause can refer to either the matrix subject or the speaker. Even though, according to Kaplan (1977, 1989), *I* is an indexical that always refers to the speaker, in the Dhaasanac sentence in (3-4), the reference is optionally shifted from the speaker to *Baali* by the attitude predicate *say*.

(3) Baali kiey-e   yaa$_{\{i/speaker\}}$ deech.
    Baali say.3SG-PAST 1SG.NOM   idiot

'Baali said he/ I was an idiot.'
[$\sqrt{}$**de se** / $\sqrt{}$**non-de se**]²

(4) Baali$_i$ kiey-e   sure$_{\{i/speaker\}}$-chu he   jiet hi konye.
    Baali say.3SG-PAST 1SG.GEN-pants   COPULAR fire RP eat.3SG.PASS.PAST

'Baali said {his/ my} pants were on fire.'
[$\sqrt{}$**de se** / $\sqrt{}$**non-de se**]

Some may argue that sentences (3-4) appear to be direct quotations, as in the case of (5).

(5) Baali kiey-e   "yaa/yu$_{\{i/speaker\}}$ deech."
    Baali say.3SG-PAST 1SG.NOM/1SG.ABS idiot

'Baali said: "{I/ He} was an idiot."'

Direct discourse is known to be a barrier to A′ extraction (Partee 1973, Recanati 1999, Schlenker 1999). However, the object extraction in (6)-(9) does not affect the reference of *I* in the relative clauses.

(6) Ini giri Hassan$_i$ kiey-e   yu$_{\{i/speaker\}}$ af   gaa dungeka   he midhab.
    girl that Hassan say.3SG-PAST 1SG.ABS   mouth on kiss.1SG.PAST be beautiful

'The girl that Hasan said {Hasan/ I} kissed is pretty.'
[$\sqrt{}$**de se** / $\sqrt{}$**non-de se**]³

(7) Maa-ya Baali$_i$ kiey-e   New York ha   yu$_{\{i/speaker\}}$ gaa aargira?
    who   Baali say.3SG-PAST NY   PREVERBAL 1SG.ABS in see.FUTURE

'In NY, who did Baali say {Baali/ I} would meet?'
[$\sqrt{}$**de se** / $\sqrt{}$**non-de se**]⁴

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²A non-*de se* reading is difficult when the speaker is looking at himself on TV. In a situation where he is looking at himself in the mirror, both *de se* and *de re* readings are available.

³In a situation such as when Hasan finds himself in the mirror kissing the girl without noticing that it is himself, *yu* can refer to Hasan.

⁴*Yu* can refer to Baali when he finds himself on TV without knowing that the person who is meeting someone in NY is himself, as well as when Baali believes that his colleague will meet someone in NY and he is unaware that he is actually the one who is supposed to meet someone.

(8) Se giri Baali_i kiey-e   yu_{i/speaker} dal-sie   mui yiek-a   he badai.
   cow that Baali say.3SG-PAST 1SG.ABS   give.birth-CAUS 3SG say.3SG-PAST be lost.PAST

   'The cow that Baali said he assisted to give birth was lost.'
   [√de se / √non-de se]

(9) Se giri Baali_i (kiey-e)   yu_{i/speaker} giel mui yie   ka   he bada-y.
   cow that Baali say.3SG-PAST 1SG.ABS   love 3SG say.3SG-PAST COMP be lost-PAST

   'The cow that Baali said he loved was lost.'
   [√de se / √non-de se]

In parallel with the first person pronoun, the second person pronoun shifts its reference in the scope of attitude verbs as shown in (10). *Kuun* 'you' is shiftable in the relative clauses as in (11-15).

(10) Baali_i Hasan_j gee-y   kiey-e   kuun_{j/hearer} shelechu chu_{i/speaker}.
   Baali Hasan tell.1SG-PAST say.3SG-PAST you   friend   1SG.POSS

   'Baali told Hasan that he was his friend.'
   [√de te / √non-de te]

(11) Maa_i [_{CP}giri Baali kiey-e   <giri> kuun_{i/hearer} shelechu muy yiek-a]   geer
   person that Baali say.3SG-PAST that you   friend   he say.3SG-PAST stomach
   gaa midhab.
   at   good

   'The person to whom Baali said {he was/ you were} his friend is nice (kind-hearted).'
   [√de te / √non-de te]

(12) Baali sheelech_i-le gee-y   kuun_{i/hearer} geer   gaa midhab yiek-a   he midhab.
   Baali friend-his   tell.3SG-PAST you   stomach at   good   say.3SG-PAST be nice/ good

   'The friend {whose heart Baali said/ to whom Baali said your heart} was warm is nice.

(13) Baali ko gee-y   kuun erleka deech.
   Baali you tell.3SG-PAST you   before stupid

   'Baali told you that you were an idiot.'

(14) Maa_i-ya Baali kiey-e   kuun_{i/*hearer} 'daale.
   person-Q Baali tell.3SG-PAST you   wise

   'Who did Baali say that he was smart to?'

(15) Ameñ-gal   Baali itin hi hinyas mui yiek-a,   he yie'di-e.
   every-people Baali you RP clever he say.3SG-PAST RP pass-PAST

   'Everyone to whom Baali said that he was smart passed the exam.'

While only the verb *say* triggers indexical shifting in Amharic, Zazaki and Matsés (Schlenker 1999, 2003, Ludwig et al. 2010, Anand and Nevins 2004, Anand 2006), it is not only the verbs *kieye* 'say' and *geey* 'tell' that shift the context in Dhaasanac. Another reportative, *fayam shiish* 'give news/report,' shifts indexicals inside indirect quotations (see (16)). These verbs of communication are the only context shifters in Dhaasanac, even though verbs of believing or hearing are known to shift indexicals in Uyghur (Sudo 2010).

(16) Baali$_i$ ye fayam dugaa sidhe   kiey-e   yaa$_{\{i/speaker\}}$/yu$_{\{i/speaker\}}$ gaal yie   die.
      Baali me news to   brought say.3SG-PAST 1SG.NOM/1SG.ABS   them beyond pass

      'Baali reported to me that {he/ I} won over them.'
      [$\sqrt{}$**de se / *non-de se**]

2.2   The Temporal Indexicals *yesterday*, *today*, and *tomorrow*

Moreover, the indexicals *yesterday*, *today* and *tomorrow*, which are not supposed to shift the temporal reference according to the fixity thesis (Kaplan 1977, 1989), optionally shift reference in the embedded clause. In (17a), it is interpreted that Loya met Baali one day before the reference time of the matrix clause, that is, eight days ago. Due to the past tense of the matrix verb, the non-shifted reading is suppressed in (17a) and (18). *Tomorrow* in (17b) can be optionally shifted to six days before the speech. As a reviewer pointed out, the obligatory shift of *gefere* 'yesterday and *kulichala* 'today' may make us wonder if these are definite descriptions such as *the previous day* in English, rather than deictic indexicals. Nevertheless, the examples in (17b) and (19) clearly suggest that *berika* 'tomorrow' and *gefere* 'yesterday' are indexicals that optionally shift reference under the attitude report.

(17) a. Ram tiiya beeyetia Baali$_i$ ye geey kiey-e   Loya gefere   mu$_{\{\sqrt{}i/*speaker\}}$
        days 7   ago   Baali to me   tell.3SG-PAST Loya yesterday 3SG.NOM
        hol   arg-e.
        REFLEXIVE meet.3SG-PAST

        'A week ago, Baali told me that Loya met him yesterday.'

        ($\sqrt{}$Loya met Baali eight days ago. / $^{\#}$Loya met Baali yesterday.)

   b. Ram tiiya beeyetia Baali$_i$ ye geey kiey-e   Loya berika   mu$_{\{\sqrt{}i/\sqrt{}speaker\}}$
        days 7   ago   Baali to me   tell.3SG-PAST Loya tomorrow 3SG.NOM
        hol   aargir-a.
        REFLEXIVE meet.3SG-FUT

        'A week ago, Baali told me that Loya was meeting him/me tomorrow.'

        ($\sqrt{}$Loya met {Baali/me} six days ago. / $\sqrt{}$Loya is meeting {Baali/me} tomorrow.)

(18) Iny   giri   Baali   kiey-e   kulichala   yu   arg-e   hi   yiek-a
the boy   that   Baali   say.3SG-PAST   today   1SG.ABS   see.1SG-PAST   RP   say.1SG-PAST
gefere   ye   dugaa   yimi-e.
yesterday   me   to   come.3SG-PAST

'The boy that Baali said he met {$\sqrt{}$yesterday / $^{\#}$today} visited me yesterday.'

(19) Hada   lullee   gefere   nigeney$_i$ lullee   kiey-e   gefere   nyi$_{\{\sqrt{i}/\sqrt{speaker}\}}$ af   gaa
girls   all   yesterday   boys   all   say.3SG-PAST   yesterday   1PL.NOM   mouth   on
'dung'geka   he   midhab.
kiss.1PL.PAST   be   beautiful

'All girls that all boys said yesterday that {$\sqrt{}$they / $\sqrt{}$we} kissed {the day before yesterday / yesterday} were pretty.'

In (19), *yesterday* and the first person plural also shift together, and the verb agrees with the first person plural. *Gefere* "yesterday" is not a deictic expression such as *one day before* since *gefere* under universal quantifier does not refer to one day before, i.e., every Tuesday.

(20) Aadh   lulle   ram   ki   sedeka   Baali   (*gefere)   laalle.
every   all   Wednesday   Baali   yesterday   danced

'Every Wednesday Baali danced yesterday.'

The sequence of tenses rule does not apply in Dhaasanac. The embedded tense in (21) is not relativized by the matrix future tense. Moreover, in (22), the relative clause need not be in the past tense even with the matrix past tense.

(21) Baali   berika   ha   ye-ka-ge-dia   Loya   gefere   nyi   hol   argi-ye
Baali   tomorrow   FUT   1SG-toward.1SG-tell-IMPF   Loya   yesterday   1PL.NOM   together   see-PAST
hay   yeedh-e.
PAST   say-PAST

'Tomorrow Baali will tell me that Loya would have met him {$\sqrt{}$today / *yesterday}.'

(22) Baali   se   giri   walach   hol   'gar   seseme(-ka)   kagilig-ay
Baali   cow   which   sheep   together   together   walk-PAST   catch-PAST

'Baali caught a cow which was walking with a sheep.'

2.3 Locative Indexicals

Even when other indexicals shift, the locative indexicals remain context dependent. This is illustrated in (23).

(23) Ini giri ram tiiya beeyeetia Hassan kiey-e   gefere   alla yu   af gaa
     girl that days 7   PAST   Hassan say.3SG-PAST yesterday here 1SG.ABS on mouth
     'dung'geka   he midhab.
     kiss.1SG-PAST be pretty

     'The girl that Hassan seven days ago said (in Nairobi) he kissed here (in Nairobi) eight days ago is pretty.'

If (24) is uttered in Turkana, *alla* 'here' only refers to Turkana even though the reference of the other indexical *arge* 'yesterday' is shifted by the reportative predicate.

(24) Baali Nairobi gaa kiey-e   Hassan gefer-e   Hadoya alla gaa arge.
     Baali Nairobi at   say.3SG.PAST Hassan meet.3SG-PAST Hadoya here at   yesterday

     'Baali said in Nairobi Hasan met Hadoya here (in Turkana) eight days ago.'

3   Indexicals in Somali

In another East Cushitic language Somali, the first person and temporal indexicals shift under the verb *yi* 'say,' as in (25-27):

(25) Xusen   ba yi-dhi   wa-an buk-ay.
     houssein FOC say.3SG.MAS-PAST FOC.I sick.1SG-PAST

     'Houssein said {he/ *I} was sick.'

(26) Gabadh-a   u   Xusen   yi-dhi   wa-an la kulm-ay   w-ay   bukt-ay.
     woman-DEF who Houssein say-PAST FOC-I her meet-PAST FOCUS-she sick-PAST

     'The woman whom Houssein said he met was sick.'

(27) Shalay   saadasha   hawada   ti-dhi   waxa u noqon lahaa qorax maanta lakin
     yesterday weather-DEF forecast-DEF say-PAST FOC it would be   sunny today   but
     shalay/*maanta. roob   da'ay
     yesterday/today rain-DEF rain.PAST

     'Yesterday the weather forecast said it would be sunny today but it rained {yesterday/ *today}.'

But locatives do not shift. If the speaker is in Djibouti, *halkane* "here" cannot refer to US even when the matrix subject Hassan is there in (28).

(28) Hassan wuxu ishegay ina kula kulmayo halkane *US/Djibouti
     Hassan said told.me   met   here   US/Djibouti

     'Hassan told me that he met someone here in {*US/ Djibouti}.'

4 Analysis

While locative indexicals never shift, time and person indexicals do shift under reportatives in Dhaasanac. The shifting pattern does not fit into the three types of monsters identified in Slave (Anand and Nevins 2004, Anand 2006). While indexical-shifting in Slave is limited to either shift-together (29a) or person indexicals (29b,c), temporal parameters also shift in Dhaasanac. Therefore, I claim the existence of a fourth kind of monster, described in (30).

(29) Indexical-shifting in Dhaasanac:

$$\llbracket OP_{per,time}\phi \rrbracket_g^{c,i} = \llbracket \phi \rrbracket_g^{<ai,hi,lc,ti,wc>,i}$$

A common property of Slave and Dhaasanac is that locative indexicals remain unshifted in the case of partial shifting. According to Sudo (2012)'s analysis of Uyghur indexicals, locatives never shift even though person indexicals do as in (30). Some of the temporal indexicals are shiftable in Uyghur while no data are given in Sudo (2012, 2010). In that sense, the indexicals in Dhaasanac possibly behave in parallel with those in Uyghur.

(30) Muhemmet manga   toqquzinzi ay-din   basla-p   men   u jer-de
     Muhemmet 1SG.DAT   9th   month-from   start-ing   1SG.NOM   there-LOC

     uqu-imen   didi.
     study-IMPERF-1SG say-PAST.3

     'Muhemmet told me that he would study there from September.'

According to Sudo (2010), Uyghur locative indexicals (*here*, *there*) are not indexicals but demonstratives which never shift reference under attitude verbs. However, considering that shift-together does not hold in Amharic (Schlenker 1999, 2003),[5] Aghem (Hyman 1979), Navajo (Speas 2000), and Catalan Sign Language (Quer 2005), partial shifting of person and temporal indexicals in Dhaasanac is not surprising at all. Sudo (2010) considers the second person indexical in Uyghur to be a definite description that does not shift reference under attitude reports. On the other hand, the second person indexical in Slave is a real indexical that may or may not be shiftable depending on the attitude predicate. It is clear that shift-together does not always hold. There is not enough evidence to exclude the partial shifting of plural kinds of indexicals in Dhaasanac, Somali, and Uyghur.

5 *De Se* and *De Re*

The present shape of monster-based approach would thus only produce the *de re* reading, and *de se* reading is not accounted for.[6] The monstrous operator shifts the reference of indexicals in the scope but the proposition is not self-ascribed to the reporter, the matrix subject. The referents of the matrix speaker and the addressee co-refer with the first and second pronouns in the embedded clause by means of the monstrous operator, but without *de se/te* interpretation.

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[5]Anand (2006), on the contrary, argues that Amharic is a shift-together language.

[6]I appreciate that a reviewer pointed this out to me.

Dhaasanac	SAY	$[\text{say}(OP_{per,time})]$	optionally shifts 1st/2nd & temporal
	REPORT	$[\text{report}(OP_{per})]$	optionally shifts 1st person
Uyghur	SAY	$[\text{say } OP_{per}]$	obligatorily shifts 1st/2nd
	BELIEVE	$[\text{believe } OP_{auth}]$	obligatorily shifts 1st
	HEAR	$[\text{hear } OP_{auth}]$	obligatorily shifts 1st
Amharic, Aghem	SAY	$[\text{say}(OP_{per})]$	optionally shifts 1st/2nd person
Navajo	SAY	$[\text{say}(OP_{per})]$	optionally shifts 1st/2nd person
Slave	TELL	$[\text{tell}(OP_{per})]$	optionally shifts 1st/2nd person
	WANT	$[\text{want}(OP_{auth})]$	optionally shifts 1st person
	SAY	$[\text{say } OP_{auth}]$	obligatorily shifts 1st person
Zazaki	SAY	$[\text{say } (OP_{\forall})]$	optionally shifts all indexicals
English	ALL	$[\text{att-verb}]$	no indexical shift

Table 1: Indexical Shifting in Different Languages, added to Sudo (2010)

(31) $[\![OP_{per,time}\text{I met you here today}]\!]_g^{c,i} =$

$[\![\text{a}_i \text{ met h}_i \text{ here at t}_i \text{ in w}_c]\!]_g^{<ai,hi,lc,ti,wc>,i}$

I assume that the index world of the embedded clause in *de se* ascription is shifted by the reportative, which is a kind of a belief predicate, as in (32). On the contrary, the index world is the same as the context world in case of *de re* description in (33). *I* in the embedded refers to Baali in the context world but may not be in the Baali's belief worlds.

(32) *De se* ascription:

$[\![\text{Baali said}\, OP_{per,time}\text{I met you here today}]\!]_g^{c,i} =$

$[\![\text{Baali said}]\!]_g^{c,i} [\![\text{a}_i \text{ met h}_i \text{ here at t}_i \text{ in w}_{i'}]\!]_g^{<ai,hi,lc,ti,wc>,<ai,hi,li,ti,wi'>}:$

in all the worlds w_i compatible with a_i's belief in w_c, a_i met h_i here at t_i

(33) *De re* description:

$[\![\text{Baali said}\, OP_{per,time}\text{I met you here today}]\!]_g^{c,i} =$

$[\![\text{Baali said}]\!]_g^{c,i} [\![\text{a}_i \text{ met h}_i \text{ here at t}_i \text{ in w}_c]\!]_g^{<ai,hi,lc,ti,wc>,i}$

6 Conclusion

This paper highlighted partial shifts of indexicals in Dhaasanac. While person and temporal indexicals are optionally shiftable, locative indexicals remain unshifted. Shifting of person indexicals occur in Somali, in addition to Uyghur and Slave (Anand and Nevins 2004, Anand 2006). If the context-shifting operator, the monster, only allows shift-together of all indexicals in its scope, unshiftable indexicals are not really indexicals but demonstratives or definite descriptions, as Sudo (2010) suggests. However, the existence of another type of monster explains the data sufficiently enough to exclude such cross-linguistic variation of lexical entries.

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