## UTAH, Criterion Theta and how they fare against Telugu data

The Uniformity of Theta Assignment Hypothesis requires biuniqueness between thematic roles and syntactic positions (Baker 1985, 1997). Arguments that such biuniqueness does not hold, and analyses that eschew this principle have largely focused on external arguments (Bruening 2013, Legate 2014, *a.m.o*). Here, I adduce data from Telugu verbal reflexives to argue against such biuniqueness for internal arguments. I also argue, based on the same data against the biuniqueness required by the Theta Criterion between thematic roles and arguments (Chomsky 1981).

The Data: Telugu (Dravidian) has a verbal suffix *kun* that can be used to signal reflexivity. In its presence, the anaphor is optional (1), unlike in Tamil and Kannada (Sundaresan 2012, Lidz 2001). In addition to reflexivity between agent and theme, it can also signal reflexivity between an agent and a beneficiary (2), location (3), or instrument (4).

- (1) akhil (tana-ni-tanu) poguḍu-**kun**-aa-ḍu akhil (3sG-ACC-3sG) praise-VR-PST-3MS 'Akhil praised himself'
- (2) S (tana-kosam-tanu) talupu moosu-kun-indi S (3SG-BEN-3SG) door close-VR-PST.3FS 'S closed the door for herself'
- (3) A (tana-lo-tanu) S-ni poguḍu-kun-aa-ḍu A (3sG-LOC-3sG) S-ACC praise-VR-PST-3MS 'A praised S silently (= within himself)'
- (4) Sowmya (tana-to-tanu) banti aapu-**kun**-indi Sowmya (3sG-INSTR-3sG) ball stop-VR-PST.3FS 'Sowmya stopped the ball with herself'
- (5) aisu karig-incu-**kuna**-baḍ-indi ice melt-CAUS-VR-PASS-PST.3NS 'The ice was melted'
- (6) Ringo tana-ni-tanu wm-lo čuus-(\*kun)-ææ-ḍu Ringo 3SG-ACC-3SG wm-LOC see-VR-PST-3MS 'Ringo saw himself in the wax museum'

Structurally, the verbal reflexive occurs between the causative and the passive morphemes (5). Note that *kun* is agent oriented, like verbal reflexives in many other languages (Ahn 2015, Reuland 2018). Based on the position and its agent orientation, I assume that the reflexive is a Voice head. Note also that *kun* disallows proxy, or statue readings (6). To be sure, the string in (6) is acceptable with *kun*. However, if the anaphor is to be interpreted as a proxy, then some other reflexivity, *e.g.* agent=beneficiary, is also signaled. Finally, the same string /*kun*/ is also used to mark the intransitive member of a causative alternation. This use however, has a demonstrably different syntax and semantics, so I abstract away from it here (cf. Balusu 2019).

**Problem**: In principle, such optionality can be thought of as a surface phenomenon, with morphophonology obscuring underlying differences. However, the two syntactic tools — AGREE and MERGE — fail to make the right predictions. I provide one argument against each for reasons of space. Consider (7) where there are three anaphors, one theme, one beneficiary, and one location. Here, any two of the three anaphors can be interpreted as a proxy for Amit (for the locative, imagine a building shaped like Amit). An AGREE-based theory (e.g. Baker in press) is constrained by intervention. If *kun* can only establish reflexivity between the agent and the highest anaphor in *kun*'s c-command domain, then the highest anaphor can never receive a proxy reading. Abstracting away from the relative height of the anaphors, we see from (7) that any of the three can receive a proxy interpretation — contrary to the prediction.

(7) amit tana-kosam-tanu tana-lo-tanu tana-ni-tanu poguḍu-kunn-aaḍu amit 3MS-BEN-3MS 3MS-LOC-3MS 3MS-ACC-3MS praise-VR-PST-3MS 'Amit praised himself in himself for his own benefit'

Ellipsis data argue against (internal) MERGE based theories. Suppose that the agent=benefactive and the agent=locative meanings are the result of different applicative heads moving to Voice. Now consider (8), where the two sentences can be understood as differing in the kind of reflexivity signalled. On the interpretation below, the antecedent has an agent=beneficiary reading, while the elided clause has an agent=locative reading. On the head-movement theory supposed, the elided and the antecedent phrase have different underlying structures (9–10), predicting the unacceptability of the ellipsis in (8) — contrary to fact. Replacing

the heads in (9-10) with silent benefactive and locative anaphors also faces the same problem. Note that both alternatives briefly considered here are UTAH-compliant.

(8) akhil sameer-ni tiṭṭu-kun-aa-ḍu. rohan kuuḍa akhil sameer-ACC scold-VR-PST-3MS. rohan ALSO 'Akhil scolded Sameer. Rohan did too.'

→ 'Akhil scolded Sameer for Akhil's benefit. Rohan scolded Sameer silently'



**Proposal**: Since available syntactic processes do not suffice, I propose to bake the optionality into the meaning of the verbal reflexive (11). kun being a Voice head assigns the agent role to its specifier. In addition, it also assigns another thematic role, drawn from a list of thematic roles ( $\Theta$ ), making kun a reflexive marker. This meaning also captures the fact that proxy readings are disallowed. Since the same argument receives two thematic roles, the possibility of proxy readings does not arise.

(11) 
$$[\![\ker]\!] = \lambda x \lambda e$$
. agent  $x e \wedge \exists R \in \Theta' : R x e$   $\Theta' = \Theta - \{\text{agent}\}\$ 

As an illustration, consider the string in (12), which has multiple parses. All the possible parses are captured by the meaning in (13). If Himanish is in fact praising his statue, then the string has a self-benefactive or a self-locative reading. In these cases, the anaphor is interpreted as a proxy and the existential in (13) is resolved either to beneficiary (14a) or to location (14b). Here, I assume that the anaphor is a distinct semantic object (y), to capture the fact that anaphors generally allow proxy readings. Alternatively, Reuland and Winter's (2009) treatment of anaphors as skolem functions can also be used to make the same point.

- (12) himanish tana-ni-tanu pogudu-kunn-aa-ḍu (14) a.  $\exists e : \text{praise } e \land \text{theme } y e \land \text{agent } h e \land \text{ben } h e \land \text{himanish } 3SG-ACC-3SG \text{ praise-VR-PST-3MS}$  'Himanish praised himself' b.  $\exists e : \text{praise } e \land \text{theme } y e \land \text{agent } h e \land \text{loc } h e \land \text{himanish } e \land \text{himanish$
- (13)  $\exists e : \text{praise } e \land \text{theme } y \in A \text{ agent } h \in A \exists R \in \Theta' : R h e$  c.  $\exists e : \text{praise } e \land \text{theme } y \in A \text{ agent } h \in A \text{ theme } h \in A \text{ th$

The parse where Himanish is praising his own self arises when the existential is resolved to theme (14c). Notice here that the same thematic role (theme) is assigned to two distinct objects. I assume that such representations are governed by the principle of Thematic Uniqueness, which requires each event participant to be uniquely identified (Carlson 1984, Landman 2000). This requirement forces the antecedent (h) and the anaphor (y) to be construed as identical, deriving the non-proxy reading. I abstract away from the optionality of the anaphor here for reasons of space, but the proposal here can account for it straightforwardly.

Conclusion: I argued that the right account of Telugu's verbal reflexive is one where the reflexivity is baked into its meaning. Furthermore, the reflexivity is between the agent and some other thematic role. Such a particle, then, violates both UTAH and the Theta Criterion: the same position (SpecVoiceP), and the same argument (Himanish) is associated with more than one thematic role at the same time. The same particle also allows the possibility of violating the two principles from the other direction. In a semantic representation like (14c), the same thematic role (here, theme) is associated with more than one syntactic position and with more than one syntactic argument. To conclude then, the biuniqueness between position or argument and thematic roles required by UTAH and the Theta Criterion do not hold.

Selected References: Baker (in press): On Agree without agreement as a source of reflexive voice constructions • Balusu (2019): Anticausative or reflexive verbal marker and aspectual light verb interactions in Telugu • Carlson (1984): Thematic roles and their role in semantic interpretation • Landman (2000): Events and Plurality • Reuland (2018): Reflexvies and Reflexivity • Reuland & Winter (2009): Binding without Identity