

## Subject domain restriction and reference-tracking

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**Summary.** This paper explores how reference-tracking systems function with non-referring DPs. It argues that at least one system, switch-reference, tracks resource situation arguments instead of tracking the entities themselves. This allows a unified explanation of switch-reference (SR) for non-referring DPs, referring DPs, and apparent non-subject tracking. It also bears on the nature of some kinds of topic, and the relationship between resource situations and reference.

**Phenomenon.** Reference-tracking systems involve morphemes indicating co-reference or disjoint reference of some pair of arguments across or within clauses. These systems include logophoricity, obviation, and the focus of this paper, switch-reference.

Switch-reference (SR) is a morpheme generally indicating whether the subject of one clause is identical in reference to the subject of an adjacent clause (1).

- (1) Yísàum cút ∅= háugà **gàu/nàu** ∅= kǎu.  
Y. book [3s:3s]= buy.PF **and.SAME/DIFF** [3s:3s]= read.aloud.PF  
'Yisaum<sub>4</sub> bought a book and he<sub>4/other</sub> read it out loud.'

**Question.** What happens when the subject is non-referring? Evidence elicited from speakers of Kiowa, an endangered language spoken in Oklahoma, shows that SR can mark co-reference between non-referring DPs— generics (2), partitives (9), universals, donkey subjects (3), and even negative expressions (4).

- (2) Thò-gù á= kîya=**chè** góm+sójè ém= hórdá+dò-gù  
cold-into [3p] exit.IMPFF=**when.SS** wind+cozy [3p:refl] dress+put.ON-IMPFF  
'When going out into the cold, one should dress warmly' (Watkins, p.c.)
- (3) Qǎhì chē ∅= dǎ=**chè** àn ∅= gú-gù  
man horse [3s:3s]= own=**when.SAME** HAB [3s:3s] hit-IMPFF  
'When a man has a horse, he hits it.'
- (4) Háun hájél [èm gún-mǎu=**chè**] èm dǎu+jǎu-gù  
NEG x.one [3s.refl] dance-IMPFF=**when.SS** [3s:refl] sing+act-NEG  
'Nobody sang while they danced.'

**Proposal.** These phenomena have all been argued independently to involve resource situations, which restrict the domain of interpretation of an operator to create a kind of reference. (von Stechow 1994, Elbourne 2002, Kratzer 2004, et al.) I propose that with non-referring DPs switch-reference tracks the resource situation. That is, the pivot of a sentence is the subject's resource situation. "Same" marking indicates that this situation co-refers with the resource situation of the adjacent clause's subject. "Different" marking indicates disjoint reference.

Further evidence comes from examining cases where switch-reference is apparently not tracking referring subjects. Some cases involve types of DPs that have been shown to involve situations, notably with bridging. In (5), "same" marking appears despite different subject entities, when talking about a dance.

- (5) Yáucáuígú ém= gún **gàu** jógú-dǎu ém= dǎu+vàigù  
young.women [3p:refl] dance.PF **and.SAME** young.men [3p:refl] sing+fight.PF  
'The young women danced and the young men sang.'

One other interesting case comes from Choctaw, a Native American language of the Muskogean family. Choctaw has a double-subject construction where the first nominative-marked DP restricts the interpretation of the second. In these cases, the first DP (the restrictor) is the pivot, not the second. The higher 'subject' is a description of the subject's resource situation.

- (6) John-at ofi'-at im-ambiika-took [sa-kisili-tok-at]  
 John-NOM dog-NOM III-sick-PAST 1sPP-bite-when.SS  
 'John<sub>i</sub>'s dog<sub>k</sub> was sick when he<sub>i</sub> bit me.'  
 [ Choctaw, Broadwell (2006) ]

**Subject-tracking SR also tracks resource situations.** Building on proposals by Percus (2000), that all DPs contain a resource situation, this proposal becomes a null hypothesis that should explain even cases where SR clearly seems to track the subject. We thus propose that switch-reference *always* tracks the subject's resource situation. It is the 'canonical' subject co-reference that is apparent. In most cases, the subject is trivially restricted—it is restricted by a situation exemplifying it [8] (Kratzer 2007, McKenzie 2007). When a subject is trivially restricted, tracking its exemplifying situation is equivalent to tracking the subject referent itself.

**Non-canonical SR also tracks resource situations.** This proposal also improves upon McKenzie (2007), and avoids intractable problems with Stirling (1993)'s event-based analysis of SR. McKenzie argues for a bifurcated SR that canonically tracks subjects, and non-canonically, topic situations. Instead, non-canonical SR simply occurs when the subject's resource situation is non-trivial.

As McKenzie noted, (7) is felicitous when the letters are written together as part of some kind of plan situation. Under this hypothesis, the pivot of the SR-marked second clause, *Kathryn* is "the Kathryn in the plan", while the anti-pivot is "the Esther in the plan." Since the resource situation of each subject is "the plan", SR marks "same."

- (7) Kathryn gà= gút gàu Esther=àl gà= gút.  
 K. [3s:3p]= write.PF **and.SS** E.=too [3s:3p] write.PF  
 'Kathryn wrote a letter and Esther wrote one too.' [Watkins 1993]

When there is no salient resource situation, the default is the situation exemplifying the subject—the unique Kathryn in the Kathryn situation.

- (8)  $\llbracket \text{Kathryn}(\text{plan}) \rrbracket = \iota x. \text{Kathryn}(x)(s^{\text{plan}})$   $\llbracket \text{Kathryn}(\text{Kathryn}) \rrbracket = \iota x. \text{Kathryn}(x)(s^{\text{Kathryn}})$

**The role of topicality.** Topicality plays a key role in non-trivial subject restriction. In (9), either same- or different-marking can be used to describe the same horses, depending on the context. In a context where the whole group of horses is salient (i.e. "What are the horses doing?"), same-marking is good. In a context where the different groups are salient, diff-marking is good.

- (9) Fá són gà= fáu-yàu gàu/nàu fá tó gà= tô-màu  
 some grass [3p:3s] eat-IMPF **and.SAME/DIFF** some water [3p:3s] drink-IMPF  
 'Some are eating grass and some are eating water.'

With same-marking, the resource situation of each subject is identical, even though the horses selected are not. With diff-marking, the resource situations vary—they may be exemplifying the separate groups.

- (10) a. (same)  $\exists x \text{ horses}(x) \text{ in } s^{\text{herd}}$  **and.SAME**  $\exists y \text{ horses}(y) \text{ in } s^{\text{herd}}$   
 b. (diff)  $\exists x \text{ horses}(x) \text{ in } s^{\text{group } 1}$  **and.DIFF**  $\exists y \text{ horses}(y) \text{ in } s^{\text{group } 2}$

Topicality also played a role in (7). Many phenomena involve restricting the interpretation of the subject, including the cancellation of lifetime effects (Musn 1995). This proposal suggests a strong link between switch-reference pivots and some kind of topicality

#### References

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