

Inclusive Reference and Anaphoric Dependencies: A Crosslinguistic Analysis

Inclusive reference (IR) pertains to instances where an object overlaps in reference with its antecedent (den Dikken et. al 2001). Contra den Dikken et. al, we argue that IR of anaphoric dependencies is productive enough across the world's languages to warrant serious investigation and explanation. We present data from numerous languages that exhibit IR in control structures and reflexive anaphora. We also show that those reflexives and control sentences that allow IR dependencies like [sg...pl], *do not* allow [pl...sg] dependencies. From this data, we formulate a general semantic principle of anaphoric dependency (GPAD) which constrains coindexation. Finally, we show that by expanding Kawasaki (1989)'s analysis of the Japanese reflexive *zibun*, we can derive the underlying mechanisms of the GPAD.

den Dikken et. al (2001) has shown that in Hungarian, a first person singular DP may antecede a plural reflexive (1a), but a plural DP may not antecede a singular reflexive (1b). The authors suggest an explanation based on the claim that the Hungarian first person plural reflexive is actually an NP+possessive pronoun. Given this, it is predicted that this phenomenon should be limited to Hungarian-like reflexives in the first person only. However, this is not the case when one looks further across the world's languages. The examples in (2a-d) show IR effects with reflexives in four languages. This data shows that the phenomenon of IR with regards to reflexives is much more productive than previously thought and warrants explanation. All languages, however, exhibit a general ban on a plural entity in an antecedent binding a singular entity in a reflexive (e.g. (3)). The data in (4) also show a ban on [pl...sg] dependencies in that they are ungrammatical on any reading that is not distributive. For instance, as illustrated in (4d), in (4c) the only possible relation between those who criticize and those who are criticized is a [sg...sg] distributive dependency (i.e. student A criticized student A, B criticized B, etc.). (4c) cannot mean a plural group of students (a+b+c) criticized one singular student (a).

Similar effects can be seen in control. In English, a singular controller can partially control a plural controllee (5a), but the reverse is not possible (5b), unless the reading is distributive. This can be seen overtly in Korean, as the reflexive *caki* behaves the same as its null counterpart PRO (Madigan 2005) (6a). In addition, the reverse situation of a plural controller controlling a singular controllee is not allowed (6b) unless it has a distributive interpretation. The reflexive and control data imply a general semantic axiom of anaphoric dependency which constrains coindexation.

- **General Principle of Anaphoric Dependence (GPAD):** Any two ordered elements, $\alpha \dots \beta$, existing in anaphoric dependency, must be in a relation such that the set of individuals included in the denotation of α is a subset of β .

When a singular antecedent antecedes a plural reflexive (2a-d), the set of individuals in α (the antecedent) is a subset of the individuals in β , so coindexation is allowed. This correctly predicts the dependencies: [sg...sg], [sg...pl], [pl...pl], while ruling out [pl...sg]. We derive the GPAD by expanding Kawasaki (1989)'s analysis of Japanese non-coreferential anaphora. Kawasaki shows that *zibun* is a variable that must be atomic. Also, the plural marker *-tachi* allows contextually determined referents as long as the antecedent is included. We crosslinguistically extend this to *all* IR-compatible anaphoric elements. This analysis also rules out [pl...sg] collective readings as stated in the GPAD as IR elements must be atomic. As for IR-incompatible anaphoric elements, such as plural English-type reflexives, they have no *tachi*-like component which would allow contextually determined referents.

- (1) a. **En magunkat** laton.
 I ourselves see-1SG.DEF
 'I see ourselves.'
- b. ***Mi magamat** latjuk.
 We myself-ACC see-1PL.DEF
- (2) a. Kuching Malay: **Kamek** suka *diri kamek orang semua*.
 1sg like self.1pl
 '(lit.) I like ourselves.'
- b. Indonesian: Yassir bangga pada *diri mereka*.
 Yassir be.proud of self.3pl
 '(lit.) Yassir is proud of themselves.'
- c. Korean: **John-i caki-tul-i** ik-yess-ta-ko mal-ha-yess-ta.
 J-NOM self-PL-NOM win-PST-DC tell-do-PST-DC
 'John₁ said that they₁₊₂ won.' (Cho 1996)
- d. Japanese: **John-wa zibun-tachi-ni** tsuite hanashita.
 John-Topself-PL about talked
 'John talked about the group that include him' (Kawasaki 1989)
- (3) a. English: *They like himself.
- b. Kuching Malay: ***Kamek orang semua** suka *diri kamek*.
 1pl like self.1sg
 '(lit.) We like myself.'
- c. Indonesian: ***Mereka bangan pada diri nya**.
 1pl be.proud of self.1sg
 '(lit.) They are proud of himself.'
- (4) a. Chinese: **Tamen** you zai kuajiang *ziji* la
 they again at praise self ASP
 'They are praising themselves again.' (Huang 2001)
- b. Korean: **Ai-tul-i caki-ka** mewa-ha-ta.
 boy-PL-NOM self-NOM hate-do-DC
 '(lit.) The boys hate self.'
- c. Japanese: **San-nin-no gakusei-ga zibun-o** hihan-shi-ta.
 Three-CLAA student-NOM self-ACC criticize-do-PST
 '(lit.) Three students criticized self.'
- d. Dependencies in (4a,b,c) = [<a,a>,<b,b>,<c,c>,...] but NOT [<a+b+c+.., a>].
- (5) a. Sachie₁ promised PRO₁₊ to gather at the library.
 b. *The boys₁₊ tired PRO₁ to go home. (OK on distributive reading)
- (6) a. Jwuhi₁-ka [caki-***(tul)-i**₁₊ mowi-keyss-ta-ko] yaksok-ha-yess-ta.
 J-NOM self-PL-NOM gather-VOL-DC-C promise-do-PST-DC
 'Jwuhi promised 'themselves' to gather at 6.'
- b. *ai₁-tul-i [caki-ka₁ cip-ey ka-keyss-ta-ko] yaksok-ha-yess-ta.
 boy-PL-NOM self-PL-NOM home-to go-VOL-DC-C promise-do-PST-DC
 'the boys promised to go home.' (OK on distributive reading)

References

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