

Non-syntactic p-hierarchy effects in Kanyen'keha: An argument for morphological economy

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Many languages that display obligatory subject and object agreement and p(erson)-hierarchy effects have been categorized as direct-inverse languages (Bejar & Rezac 2009, Zubizarreta & Pancheva 2017, Oxford 2019, among others). P-hierarchy effects in such languages, including Kanyen'keha, have been analyzed as arising from effects of person features on the syntactic derivation. I will show that p-hierarchy effects in Kanyen'keha cannot be syntactically derived, and propose a new analysis that derives p-hierarchy effects from morphological principles.

Oxford (2019), analyzing Anishinaabemowin, exemplifies syntactic approaches to p-hierarchy effects. His analysis uses two agreement probes to derive p-hierarchy effects: one in Infl (bolded below), which targets the subject, object, or both, depending on their person features, and one in Voice (underlined below), which always targets the object. The targetting of Infl predicts p-hierarchy effects. (1) below demonstrates the agreement with 1st and 2nd persons.

- (1) Anishinaabemowin (from Oxford 2019) p-hierarchy: 2 > 1 > 3
- | | |
|---|---|
| a. Gi -wa:bam- <u>i</u> 2 → 1 = direct | b. Gi -wa:bam- <u>in</u> 1 → 2 = inverse |
| 2-see-1.OBJ | 2-see-2.OBJ |
| “You see me.” | “I see you.” |

Unlike Anishinaabemowin, Kanyen'keha does not show any agreement component that always targets one argument. Where it does not have a portmanteau, it shows two agreement components that co-vary symmetrically in realization of subject and object. Higher-ranked arguments are realized by the primary morpheme (bolded below), and lower-ranked arguments are realized by the secondary morpheme (underlined below), regardless of subjecthood or objecthood. (2) shows the agreement with 1st and 3rd persons.

- (2) Kanyen'keha (from Owennatekha 2019) p-hierarchy: 1 > 2 > 3
- | | |
|--|--|
| a. Ya -k-hi-non:we'-s 1 → 3 = direct | b. Yon -k-hi-non:we'-s 3 → 1 = inverse |
| 3.FEM.OBJ-1-3.PLURAL-like-HAB | 3.FEM.SUBJ-1-3.PLURAL-like-HAB |
| “We like her.” | “She likes us.” |

When Infl and Voice both target the object, Anishinaabemowin shows default morphology in Voice. Kanyen'keha exhibits no default morphology in any context. Portmanteau morphology in Anishinaabemowin only appears when Infl targets both arguments. Portmanteau morphology in Kanyen'keha has no distribution predictable by person features. Analyses that tie syntactic asymmetries to the p-hierarchy make false predictions about Kanyen'keha verbal agreement.

To account for the behaviour of Kanyen'keha verbal agreement, I propose a syntactic structure in which a single agreement probe agrees with both subject and object. I assume an entailment-based person feature geometry in which higher-ranked arguments have larger feature sets. To maximize morphological economy, higher-ranked arguments insert into the primary person morpheme before lower-ranked arguments, producing p-hierarchy effects. I propose fission rules which allow the probe to insert up to three morphemes, as the paradigm requires.

The agreement probe first inserts a primary morpheme, which realizes the higher-ranked argument, or a portmanteau for both arguments. A first fission rule triggers if the probe has a single set of unrealized person features, allowing the probe to insert a secondary morpheme for the lower-ranked argument. A second fission rule triggers if the probe has a number feature of a 1st or 2nd person argument, allowing the probe to insert a number morpheme.

This analysis establishes Kanyen'keha as distinct from direct-inverse languages, but

shares core assumptions with other analyses of direct-inverse languages, reflecting genuine similarity between Kanyen'keha and direct-inverse languages.

References

Zubizarreta M, Pancheva R. A formal characterization of person-based alignment. *Natural Language & Linguistic Theory*. 2017; 35(4):1161-1204

Béjar S, Rezac M. Cyclic agree. *Linguistic Inquiry*. 2009; 40(1):35-73.

Owennatekha. Onkwawenna Kentyohkwa 1st Year Adult Immersion Program. Ohsweken: Onkwawenna Kentyohkwa; 2019

Oxford W. Inverse marking and multiple agree in Algonquin. *Natural Language & Linguistic Theory*. 2019; 37(3):955-96.