

Subject/Object Parity in Niuean and the Labeling Algorithm

Introduction. We present novel data from the Polynesian language Niuean, based on recent fieldwork, that shows a lack of many expected structural asymmetries between subjects and objects. This structural parity runs counter to traditional theoretical and empirical differences between subjects and objects. For example, languages like English show ECP effects such that operations over objects are generally freer than those over subjects, and languages like Chol specifically privilege operations over subjects (Coon 2010). In order to account for the Niuean in a way that does not make incorrect or *ad hoc* predictions for other types of languages, we develop notions from Chomsky’s (2013) labeling algorithm and argue for a lack of relevant labeling in the domain where subjects and objects are potential operands.

Subject/Object Symmetry. Subjects and objects in Niuean lack many of the basic asymmetries found in other languages. In particular, subject and object *wh*-words within a single clause do not evince superiority effects (1). Superiority effects do arise between subjects and objects that originate in different clauses (2).

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|-----|----|------------------------------------|----|------------------------------------|
| (1) | a. | Ko e heigoa ne kai e hai? | b. | Ko hai ne kai e heigoa? |
| | | Pred ABS what NFT eat ERG who | | Pred who NFT eat ABS what |
| | | ‘What did who eat?’ | | ‘Who ate what?’ |
| (2) | a. | Ko hai ne pehe ne kaiA e ko | b. | *Ko e heigoa ne pehe a hai ne |
| | | Pred who NFT say PST steal ERG you | | Pred ABS what NFT say ABS who PST |
| | | e heigoa? | | kaiA e koe |
| | | ABS what | | steal ERG you |
| | | ‘Who said that you stole what?’ | | ‘What did who say that you stole?’ |

Even though we assume *wh*-questions in Niuean are (pseudo-)clefts that are comprised of a predicate nominal modified by a headless relative clause, the facts above are still puzzling. In English, superiority effects still manifest in cases of operator movement over an overt *wh*-argument:

- (3) *[[What] [*Op*_i who saw *t*_i]] was impressive?

Furthermore, it is possible to raise both subjects and objects into a higher clause (Seiter 1980). This is shown in (4) for raising to subject; analogous facts hold for raising to object. In (4a) the embedded subject has undergone raising and in (4b) the embedded object has. We analyze these constructions as copy-raising (CR). Niuean subject and object are equally viable as CR’ed elements, in contrast to English CR (Potsdam and Runner 2001; Rezac 2004). We provide further evidence that apparent *tough movement* constructions show the same sort of parity between subject and object (though we argue that these are in fact instances of CR as well). These and other symmetries between subjects and objects require a principled account.

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|-----|----|----------------------------------|----|---------------------------------|
| (4) | a. | To maeke e ekekafo ke lagomatai | b. | To maeke a Sione ke lagomatai |
| | | FUT possible ABS doctor SBJ help | | FUT possible ABS Sione SBJ help |
| | | a Sione | | he ekekafo |
| | | ABS Sione | | ERG doctor |
| | | ‘The doctor can help Sione.’ | | ‘The doctor can help Sione.’ |

Structural Equidistance. To account for the situation where two arguments are equidistant from higher positions, we develop a labeling algorithm that follows Chomsky (2013), who holds that labeling/projection is not necessarily relevant syntax-internally but rather occurs so as to create legible structures at the CI-interface. We go further in saying that a given result of merge *need not* label if it is irrelevant to the CI-interface. Below, we derive an abstract Niuean sentence using the labeling algorithm:

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|-----|----|--|---|
| (5) | a. | <i>v</i> [V Obj] | Merge V and Obj, label for Obj’s thematic interpretation. |
| | b. | <i>v</i> [<i>v</i> <i>v</i> [V Obj]] | Merge <i>v</i> and VP, label for causative or aspectual interpretation* |
| | c. | [Obj <i>v</i> [<i>v</i> <i>v</i> [V Obj]]] | Obj moves for EPP on <i>v</i> , no label: no CI relevance |
| | d. | [Sub [Obj <i>v</i> [<i>v</i> <i>v</i> [V Obj]]]] | Merge Sub and result, no label: no thematic role for Sub |
| | e. | <i>voice</i> [voice [Sub [Obj <i>v</i> [<i>v</i> <i>v</i> [V Obj]]]]] | Merge voice and result, label for Sub’s thematic interpretation |
| | f. | [T [<i>voice</i> [voice [Sub [Obj <i>v</i> [<i>v</i> <i>v</i> [V Obj]]]]]]] | Merge T with voice, label irrelevant for discussion. |
| | g. | [<i>v</i> [V Obj] [T [<i>voice</i> [voice [Sub [Obj <i>v</i> [<i>v</i> <i>v</i> [V Obj]]]]]]] | VP moves for EPP on T**, label irrelevant. |
- *Harley 1995; Borer 1998 **Massam 2010

The crucial steps above are (5c) and (5d), neither of which undergo labeling. There is no labeling in (5c) because the movement of the object is merely for EPP reasons and as such has no CI effect. There is no labeling in (5d) because the result is not a semantic entity. More specifically, the subject is only interpreted as the external argument due to the presence of the voice head that has yet to be introduced into the derivation; we follow Harley (to appear) who argues that external arguments are introduced below the voice head, but depend on it for their thematic interpretation. Following Massam 2001, we take ergative Case to be assigned lower than T and as such, there is no additional motivation for the subject to increase its structural distance from the object.

Given that the subject and object are not divided by any label whatsoever, and given that labels and their sub-components are the only syntactically visible elements in the derivation (the brackets not syntactically relevant entities, though they may become syntactically relevant at the PF interface), the two are in a deep sense equidistant. It is exactly this equidistance that effects the symmetries shown above. When the subject and object are wh-words, either can participate in the (pseudo-)cleft structure required for wh-questions in Niuean.

Similarly for the CR sentences: Not only will both elements be equally viable as the lower copy, they will crucially both be in a position such that they have not yet been spelled out when the relevant subject or object enters the matrix clause. Following Chomsky 2001 (and others), we argue that a phase is spelled-out only when the next highest phase-head is merged into the derivation. When the embedded C-head is merged in the examples in (3a) above, the embedded *v* will be spelled-out. That *v*-head does not project over the subject or object in the above derivation. Under CR to object, the matrix object is introduced before the merge of the matrix *v*-head that affects the spell-out of the embedded CP. This is shown in (6) with the non spelled-out elements in **bold** (we ignore labels here for expository ease).

(6) [Obj [V [C [[V Obj] [T [voice [Sub [Obj [v [V Obj]]]]]]]]]]

Under CR to subject, the issue never arises as there is no matrix external argument. The lack of an external argument correlates with weak phasehood and thus the matrix *v*-head does not affect the spell-out of the embedded CP.

Cross-linguistic Predictions. The subject/object symmetry in Niuean is interesting in that it is not found in other languages. The proposed analysis for capturing this symmetry allows for cross-linguistic variation where Niuean is a particular subclass. The place of Niuean in the range of possible languages is determined by the VP-specific (or *v*P specific as Massam 2010) EPP feature on the Niuean T and a DP-specific EPP on the Niuean *v*. We argue that languages with asymmetries of different sorts arise due to different values for their EPP features. For instance, it is possible for a language to look essentially like Niuean, but lack an EPP on *v*. In such a language, the object would be ‘trapped’ inside the moving VP. Due to being within a moving element, the object will be precluding from entering into syntactic relations in its derived position (see Wexler & Culicover 1980). As such, only the subject will be manipulable in the relevant ways. This is exactly what we find in languages like Chol (Coon 2014), where it is argued that the predicate moves carrying the object along with it and the object is subject to a variety of constraints that the subject is not (though Coon posits that this is for agreement reasons).

(7) [C [V [V Obj] [T [Sub *voice*[voice [v [v V [V Obj]]]]]]]] *Chol*

It is also possible that the T-head will have a DP-specific EPP feature. Such languages will move the subject to a position structurally higher than the object and as such will create the traditional ECP/superiority effects that we find in English (note that this requires either that there be no DP-EPP on the *v* or that the EPP on T be relativized for Case).

(8) [C [Sub [T [*voice*[voice [Sub *v*[v V [V Obj]]]]]]]] *English*

Finally, it is possible for there to be a language otherwise similar to Niuean but with a verb-head EPP feature on T. This system would create VSO orders with the same subject/object symmetries. This could be a viable analysis of the facts in Chamorro as described in Chung 1983.

(9) [C [T+V [*voice*[voice [Sub [Obj *v*[v V [V Obj]]]]]]]] *Chamorro*

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