Features Shouldn't Be Too Much Alike:
Some Evidence from Japanese Sign Language

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Chomsky (2014) proposes that syntactic objects formed by merging two non-head terms (XP-YP) have the label F, where XP and YP share the most prominent feature F. To illustrate, the Spec-TP construction with overt subject in English is labeled $<\phi, \phi>$ as in (1).

(1) $[_\alpha \text{Tom}_{[\phi]} [\text{T}_{[un\phi]} [\text{Tom v* read a book}]]]: \alpha = <\phi, \phi>$

While this proposal applies to "asymmetrical" XP-YP structures like (1), where the interpretable ϕ-feature on NP and the uninterpretable ϕ-feature on T match and agree, it is not clear if it also applies to "symmetrical" XP-YP structures like (2), where the shared features are exactly identical.

(2)   *Symmetrical NP-NP*
        $[_\beta \text{NP}_{[\phi]} \text{NP}_{[\phi]}]$, where ϕ-features are both interpretable

How is (2) labeled when it reaches the interfaces?

With this background, I present two observations from Japanese Sign Language (JSL), suggesting that symmetrical NP-NP structures are not licensed in natural language.

The first one concerns a coordinate structure. In the literature, it has been proposed that NP-coordination is syntactically represented by a symmetrical NP-NP structure as in (3).

(3)

NP   &   NP

(cf. Goodall 1987)

JSL provides an interesting piece of evidence to examine the availability of this structure (Kotani 2009 for related discussion). Unlike spoken languages, JSL employs two articulators, two hands, which are physiologically independent (cf. Sandler and

Lillo-Martin 2006). It is therefore potentially possible that the two NPs in (3) are signed by the two independent articulators simultaneously, if such a structure is indeed available. However, this expectation is not met (hn = head nod).

(4)   *   ___hn
              right hand (dominant)   HE
              left hand (non-dominant)   YOU
              'intended: He and you'
(5)   ___hn
              HE   YOU
              'He and you'

In (4), the two conjuncts and the head nod marking coterminous with the conjuncts, used as a coordinator (see (5)), are signed at the same time, and the result is unacceptable. This provides evidence that a symmetrical NP-NP structure results in ungrammaticality.

The second observation comes from copular sentences. It is generally agreed that a copular sentence has an underlying XP-YP structure like [John [be [~~John~~ [a teacher]]]] (cf. Moro 1997, Mikkelsen 2005). Further, researchers argue that in the **identity** type of copular sentences (e.g. *John is Mr. Smith*), unlike in **predicational** copular sentences (e.g. *John is a teacher*), the NPs are both referential arguments, requiring case (cf. Partee 2000, Mikkelsen 2005). Under the current framework, such NPs are assumed to bear interpretable ϕ-features as in   [John$_{[\phi]}$ [be [~~John$_{[\phi]}$~~ [Mr. Smith$_{[\phi]}$]]]]. With this in mind, consider the following in JSL.

(6)   *Predicational copular sentence*
        HE   TEACHER
        'He is a teacher.'   (Yonekawa 1984)
(7)   *Identity copular sentence*
        *TAROO   YAMADA
        'intended: Taroo is Mr. Yamada.'

As shown in (6), JSL does not require the copular verb to express a copular meaning. These examples can thus be analyzed as in (8) and (9) respectively, (9) forming a symmetrical NP-NP.

(8)   [he$_{[\phi]}$ teacher]
(9)   [Taro$_{[\phi]}$ Yamada$_{[\phi]}$]

The result is that only example (7) is unacceptable. This again illustrates the same point: symmetrical NP-NP structures are banned in natural language.