Multidimensional features with linear morphology: the case for an independent morphological level of representation

The usual mechanisms for describing systematic syncretism appeal to structural adjacencies within some model of feature structure (be it multiply branching tree, a network of cross-classifying values, or linear hierarchy). As such they are designed to capture morphological identities within the expression of a single feature (1a), but are unable to adequately account for identities that require reference to the values of multiple features (1b), other than by resorting to the complete underspecification implied by a default 'elsewhere' form. This is because no model provides a structure to directly relate individual morphosyntactic values across different features. We show here data from a system where the systematic identities of morphosyntactic values across features provide evidence for the existence of a separate, independent morphological hierarchy which is linear, and acts as an interface between partially specified morphological exponents and the values of a fully elaborated system of cross-classifying morphosyntactic features. Systematic syncretism and polyfunctionality of exponents is accounted for by adjacency on the morphological hierarchy, even where they cross features.

(1)   a. feature-internal identity   b. cross-feature identity

Such patterns of identity arise in number marking on verbs in Seri (isolate; Mexico). The core of the system involves two cross-classifying features (Marlett 2016, Cabredo Hofherr et al. 2018): subject number, with the values singular and plural, and event number, with the values neutral vs. multiple.

(2) a. *singular subject neutral*
        ih-yo-ohit
        1SG.TR-REALIS-eat
        'I ate something.'

    b. *plural subject neutral*
        ha-yo-iit-oj
        1PL-REALIS-eat.PL-PL
        'We ate something.'

    c. *singular subject multiple*
        ih-yo-ohit-im
        1SG.TR-REALIS-eat-MULT
        'I ate something (over time).'

    d. *plural subject multiple*
        ha-jo-iit-olca
        1PL-REALIS-eat.PL-PL
        'We ate something (over time).'

Recent fieldwork has shown there is a third value of verbal number, namely distributional, which marks the distribution of the event(uality) over space. (Crucially, the distributional and the multiple have distinct exponents.) Its morphological realization draws on characteristics of both singular and plural subject marking, providing further evidence for the morphological hierarchy argued for in Baerman (2016). Both subject number and verbal number features (multiple and distributional) draw on a single linear hierarchy of incremental number values for their morphological expression. This involves a wealth of allomorphs that reflect degrees of number without a firm commitment to a single value. For example, the suffixes in (3) can have either the neutral or multiple value of event number, interpretable along a scale of exponents as in the excerpt in (4), where the ones to the right always indicate the addition of a further degree of number.

(3) *plural subject neutral*   *plural subject multiple*
    -teepzaj-c   -teepzal-ca   'sit in'
    -axnal-ca   -axnal-coj   'scold'
    -anaml-coj   -anaml-cam   'hurry'
    -azaail-cam   -azaiil-cam   'anchor'   (note stem alternation)
    (Moser & Marlett 2010)

(4) *-c < -ca < -coj < -cam*

Where the subject is singular, distributional marking occurs at the margin between singular subject and plural subject marking. (With plural subjects it is systematically syncretic with the multiple.) With some verbs it is entirely syncretic with the plural subject neutral form, as in (5), where *yital-c* can mean either 'they have burned' or 'it has burned (in spots, e.g. the way a pancake has burned spots/marks)'.

(5)

'burn (intr.)'	SG subject	PL subject
neutral	yitaj	**yital-c**
multiple	yital-im	yital-coj
distributional	**yital-c**	

With some other verbs the distributive has a distinct form within its own paradigm, but the actual form involves recycling the same morphology found with plural subject forms in other paradigms: compare *yahizl-ca* 's/he tied something (in various places)' in (6a) with *yihinel-ca* 'they are exposed' (a verb which lacks a distributional form) in (6b). Moreover, in these cases the exponent of the distributional form complies with the scale of exponents; *-ca < -coj* as in (4).

(6)

'tie'	SG subject	PL subject
neutral	yahizj	yahizl-coj
multiple	yahizal-im	yahizal-am
distributional	yahizl-**ca**	

'exposed'	SG subject	PL subject
neutral	yihinej	yihinel-**ca**
multiple	yihinel-im	yihinel-coj

The linear hierarchy in (7) regulates the interpretation of the underspecified exponents: indeed, as shown in Baerman 2016, the many-to-many mappings between values and exponents is not random but follows an implicational mapping scale between the scale in (7) and a scale of exponents, a sample of which is given in (4).

(7)   SG NEUT   SG MULT   SG DISTR   PL NEUT   PL MULT/PL DISTR
     singular ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯→ *plural*

Although the approximate semantic motivation of (7) is clear, it is in effect morphologically stipulated. The syncretism and polyfunctionality of the verbal exponents follows from adjacency on this hierarchy, in spite of their non-contiguity in the morphosyntactic feature system.

References

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