A Sympathetic Approach to Stress in Spanish Ipsiradical Sets

(Sympathyによるスペイン語 Ipsiradical setsにおける強勢の分析)

In Spanish, there are many verb / nominal pairs which share the same root morpheme and are segmentally identical as well. Harris 1992 dubs these pairs "ipsiradical sets". Although members of the ipsiradical sets usually show the same stress pattern, members of some ipsiradical sets show different stress patterns as in *plática 's/he chats' / plática 'chat'. In this paper, I propose a Sympathy-Theoretic (ST; McCarthy 1998, 1999) account for the stress pattern in Spanish ipsiradical sets, and argue that the Spanish verbal present tense marker is a sympathy-inducing morpheme (Itô & Mester 1998). Also, by applying ST to the morpho-phonological phenomenon that is not an instance of opacity, I claim that the analysis proposed in this paper can make ST a more general theory, and that it supports ST as a UG component.

Some examples of Spanish ipsiradical sets are shown in (1).

(1) a. de.sa.rró.llo 'I develop' de.sa.rró.llo 'development'
    a.rró.ga 'it wrinkles' a.rró.ga 'wrinkle'
    b. for.mú.la 's/he formulates' fór.mu.la 'formula'
    plá.tí.ca 's/he chats' plá.tí.ca 'chat' (Harris 1992)

As seen in (1), the members of each pair are segmentally identical. In (1a), stress falls on the penultimate syllable in both verbs and nominals. However, in (1b), stress falls on the penultimate syllable in verbal forms, while it falls on the antepenultimate syllable in nominal forms. To account for the antepenultimate stress, we assume that the root morphemes in (1b) are lexically stressed, and that the stress-identity constraint, such as NoFlop-Prom$_IO$ (Alderete 1999), dominates the markedness constraints which require the default penultimate stress. The members of the sets in (1b) have the same root morpheme and, as indicated by the nominal form, the antepenultimate stress in these words does not violate the dominant Three Syllable Windows restriction. Thus, the ranking NoFlop$_+$markedness allows the lexical antepenultimate stress to be realised on the surface, and the stress shift in the verbs cannot be accounted for by the ranking.

The approach proposed in this paper focuses on a difference in underlying structures between verbs and nominals. Underlying structures for verbs and nominals are shown in (2).

(2) a. [plática$_{\text{ROOT}}$ a$_{\text{TV}}$ a$_{\text{TM}}$ ø$_{\text{PN}}$]$_{\text{V}}$ platía 's/he chats'
    b. [plática$_{\text{ROOT}}$ a$_{\text{CM}}$]$_{\text{N}}$ plática 'chat'

(TV = theme vowel; TM = tense marker; PN = person/number marker; CM = class marker)

As can be seen in (2), the final vowel is a present tense marker (PTM) in verbs, while it is a class marker (CM) in nominals. In addition, verbs have a theme vowel that is deleted by high-ranked *VV on the surface. Given the underlying structures (2), it is clear that the contrast in stress pattern observed in (1b) stems from the different metrical properties of PTM and CM: PTM is always parsed into foot, but CM is not parsed into foot in nominals that are stressed on the antepenultimate syllable. I argue that the different metrical properties come from the difference in lexical sympathetic specification between PTM and CM. PTM is lexically specified for sympathy with a lexical specification $\ast$-selector = Max$_{IO}$, and CM does not have any sympathetic specification. If a morphological word is headed by PTM, it must be faithful to the $\ast$-ed candidate selected by Max$_{IO}$. With Max$_{IO}$ as the $\ast$-selector and the $\ast$-Anchor(Ft, Ft, Final) as the dominant sympathetic faithfulness constraint, the proposed analysis can account for the penultimate stress in verbs as can be seen in (3).
The -ed candidate always has a foot at the right-edge of the word, because it has a final heavy syllable. Thus, the undominated sympathetic faithfulness constraint -Anchor requires a foot to be aligned with the right-edge in present tense verbs, and the optimal form has stress on the penultimate syllable even if it violates NoFlop. Since the -ed candidate and -Anchor require a foot to be at the right-edge, PTM is always parsed into foot as observed from the data.

As opposed to the verbal PTM, the nominal CM does not have a sympathetic specification. Thus, the sympathetic constraint is not relevant to nominals and the lexical stress can be realised on the surface, as can be seen in (4).

The sympathetic approach proposed in this paper is superior to Noun Faithfulness (NF; Smith 1997) approach that assumes distinct faithfulness constraint for nominals. In a NF analysis, a noun-specific faithfulness constraint dominates the markedness constraints, which dominate the general faithfulness constraints. By this ranking, the lexical stress is realised only in nouns, but is overridden by the default penultimate stress in verbs. However, some Spanish verbal forms, such as 1st. plural imperfects, have the antepenultimate stress. To account for this fact, it is necessary to assume a faithfulness constraint that is specific to the 1st. plural imperfects, but this assumption is not compatible with the concept of NF itself. Therefore, the NF analysis may introduce some ad hoc assumptions or may not even be able to account for stress in Spanish ipsiradical sets.

Finally, in the sympathetic analysis proposed in this paper, I suggest that ST is not a mere tool to resolve opacity problems in OT but a general model of phonological competence.