de Lacy, Paul (2002). *The formal expression of markedness*. Doctoral dissertation, University of Massachusetts, Amherst. Amherst, MA: GLSA Publications [Rutgers Optimality Archive #542]

This dissertation presents a formal theory of markedness, set within Optimality Theory. Two of the leading ideas are (a) hierarchical markedness relations may be ignored, but never reversed and (b) the more marked an element is, the greater the pressure to preserve it.

Examples of (a) are found in sonority-driven stress systems. In Gujarati, low vowels attract stress away from mid vowels, while Nganasan's stress system makes no distinction between the two categories. So, while stressed mid vowels are more marked than stressed low vowels (as shown by Gujarati), that distinction can be conflated (as in Nganasan). However, in no language is the markedness relation reversed: stressed mid vowels are never preferred over stressed low vowels.

An example of (b) is found in Yamphu. /t/ is eliminated through a process of debuccalization. In contrast, the more marked segments /k/ and /p/ remain intact; these segments avoid the debuccalization process because they are highly marked and thereby excite greater preservation. Ideas (a) and (b) are formally expressed as a set of constraint- formation conditions. For constraints on output structures ('markedness' constraints), if a constraint assigns a violation to an element p in scale S, then the constraint also assigns a violation to every element that is more marked than p in S. An analogous proposal applies to faithfulness (i.e. preservation) constraints: if a faithfulness constraint bans an unfaithful mapping from element p in scale S, then the constraint also bans unfaithful mappings from all elements that are more marked than p in S. The result is that - regardless of the constraints' ranking - more marked elements are both subject to more stringent output conditions and preserved more faithfully than lesser-marked ones. The constraints are also shown to allow distinctions between scale categories to be collapsed.

A wide range of phonological phenomena provide evidence for the theoretical proposals, including analyses and typologies of sonority- driven stress (Nganasan, Gujarati, Kiriwina, and Harar Oromo), tone-driven stress, vowel and consonant epenthesis, vowel reduction (Dutch), coda neutralization (Malay and Yamphu), Place assimilation (Catalan, Ponapean, Korean, Swedish, and Sri Lankan Portuguese Creole), and coalescence (Attic Greek and Pali).