

Finley, S. (2009).

*University of Rochester Working Papers in the Language Sciences*

### **Locality Restrictions on Exceptions to Vowel Harmony**

*Sara Finley\**

*University of Rochester*

This paper argues that while the domain of regular vowel harmony processes applies over the entire lexical item, exceptions to vowel harmony apply to a domain that is locally bound to the exceptional morpheme. This has important consequences for distinguishing be

the nature of lexical exceptions. The most obvious prediction is that exceptions should follow universal grammatical principles. However, the full extent of the principled nature of exceptions has yet to be discovered. Understanding exactly how exceptions in phonology are principled is critical for understanding the proper device for implementing a formal theory of exceptions.

Vowel harmony provides excellent ground for testing the principled nature of exceptions. For the purposes of this paper, I define vowel harmony as any process whereby consecutive vowel segments share some feature value. I consider two types of vowel harmony in this paper: stem-controlled and dominant-recessive (Aoki , Bakovic Halle & Vergnaud van der Hulst & van de Weijer



about the nature of exceptions in phonological vowel harmony, some discussion of the nature of lexically-indexed constraints is warranted.

Lexically-indexed constraints are in most ways identical to standard constraints, particularly in that indexed constraints must be drawn from the universal set of constraints. What makes indexed constraints different is that whether or not an indexed constraint applies depends on the input. Indexed constraints apply if and only if both the input and the indexed constraint are co-indexed. For example, FAITH<sub>I</sub> applies only to /input/<sub>I</sub>. In all other cases, the indexed constraint does not apply (it cannot be violated; it is vacuously satisfied). Note that multiple morphemes, classes of morphemes, or individual morphemes each may all have the same indexation.

The restriction on application of indexed constraints can be derived through a restriction on the locus of violation for indexed constraints. According to Pater (2007, to appear), the locus of violation for indexed constraints must include that indexed morpheme. For example, for input /Root + Suff<sub>I</sub>/, the indexed constraint is violated only if the I-indexed suffix contributes to the violation. For a given indexed constraint, if there is no matching indexation in the input, then that indexed constraint is vacuously satisfied.

The locus of violation for indexed faithfulness is derived from the locus function for unindexed faithfulness constraints. This function assigns a correspondence relation !, that maps

the input to the output. (The locus function is a function from the input to the output.)

The combination of (2) and (4) yields the locus function for indexed faithfulness constraints, given in (5), below.

- (5) Loc Function for IDENT[F]<sub>I</sub>  
LOC<sub>IDENT[F]I</sub>(!<sub>I</sub>(input<sub>L</sub>, output)) {locus<sub>1</sub>, locus<sub>x</sub> ... locus<sub>j</sub>}, where locus<sub>j</sub> is an out-locus of !<sub>I</sub> whose ordered input-output pair



\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_











*Finley: Locality restrictions on exceptions to vowel harmony*



*3.1 Exceptional Harmony in Non-Harmony Languages: Korean*

!



*3.2 Exceptional Non-Undergoers in Dominant-Recessive Languages: Nandi-Kipsigis Kalenjin*





— ( #  
—————  
—————

*Finley: Locality restricti*



E	E				
E	E				

*F*

---

*pI*





Q+ )\_

*Finley*



*Finley: Locality restrictions on exceptions to vowel harmony*





*Papers in optimality theory*

