

Phonological identity is phonological identity

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1. Introduction The concept of identity in phonology has acquired new significance through the rise of OT, and in particular the mechanism of faithfulness. But what is identity? Is it determined phonetically, or more abstractly? Drawing on evidence from a range of different kinds of phenomena, I argue that phonological identity depends on systems of phonological contrast: what matters in the phonological determination of identity is not phonetic similarity, but more abstract phonemic representations.

2. Reduplicative identity The generalization from IO faithfulness to BR faithfulness in Correspondence Theory (McCarthy & Prince 1995) introduces the possibility of grammatically enforced identity of non-contrastive properties. Eg., in Javanese the distribution of tense and lax high vowels is non-contrastive: they are lax in closed syllables, tense in open ones (1). But this generalization is rendered surface-untrue by reduplication; in (2), both tokens of /I/ are lax, though only the second is in a closed syllable.

- (1) a. [a.piq] 'good' [a.pi.q+e] 'good'+demonstrative
b. [klu.wuŋ] 'rainbow' [klu.wu.ŋ+e] 'rainbow'+demonstrative
- (2) [a.pi.q+a.piq] RED+'good'

This pattern could be taken as evidence that BR constraints mandate identity of a non-contrastive property: the tenseness or laxness of the vowel in the base is determined by context in the normal way, but the vowel in the reduplicant is required to match it. However, Inkelas & Zoll (2005) suggest a different explanation, in which the opaque application of laxing is effectively a cyclic effect. Copying is performed at the morphological level; the laxing pattern then applies normally to each copy separately, and does not reassert itself at the level of the whole word. Inkelas & Zoll (2005) argue that their approach to reduplication is in general more restrictive than the BR-faithfulness account; it also has the specific side effect of eliminating the need for a class of constraints that require preservation of non-phonemic distinctions.

3. Identity in harmony Correspondence relations within a single output form have also been used in accounting for harmony phenomena, e.g. by Rose & Walker (2004). Under their approach, output segments that are sufficiently similar enter into correspondence relations, and may thus be required to agree in other features as well. Mackenzie (2009), however, argues that the relevant generalizations can instead be stated in terms of phonologically contrastive features. In Bumo Izon, for example, implosive /b, d/ cannot cooccur with pulmonic /b, d/. However, harmony ignores /g/, which has no implosive counterpart, and /gb/, which has no pulmonic counterpart. What is crucial for implosive harmony, then, as Mackenzie argues, is not that phonetically similar segments should have identical airstream mechanisms, but rather that a word cannot contain two different phonologically contrastive specifications for the feature [\pm constricted glottis].

4. Cross-linguistic identity Examples of phonemic identity taking precedence over phonetic similarity can also be found in loanword adaptation. For example, Herd (2005) notes that English /s, z, ʃ/ are borrowed as /k/ in Hawaiian, but as /h/ in New Zealand Māori. Both NZ Māori and Hawaiian have both /h/ and /k/, so if the choice were based on phonetic similarity, we would have no reason to expect the two languages to choose differently. Herd argues that the crucial difference is the system of contrasts into which the consonants enter. Hawaiian /k/ does not contrast with /t/, and so is not contrastively specified as dorsal; its phonological identity is thus compatible with /s, z, ʃ/. NZ Māori, on the other hand, does have phonemic /t/, and so /k/ is contrastively dorsal, and thus not a good phonological match for /s, z, ʃ/.

5. Claim These disparate sources of evidence all support the claim that when phonology concerns itself with the identity of segments, it is concerned exclusively with their identities as contrasting members in a phonemic system, and not with phonetic similarity.

References

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